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PRANAVA BOOKS

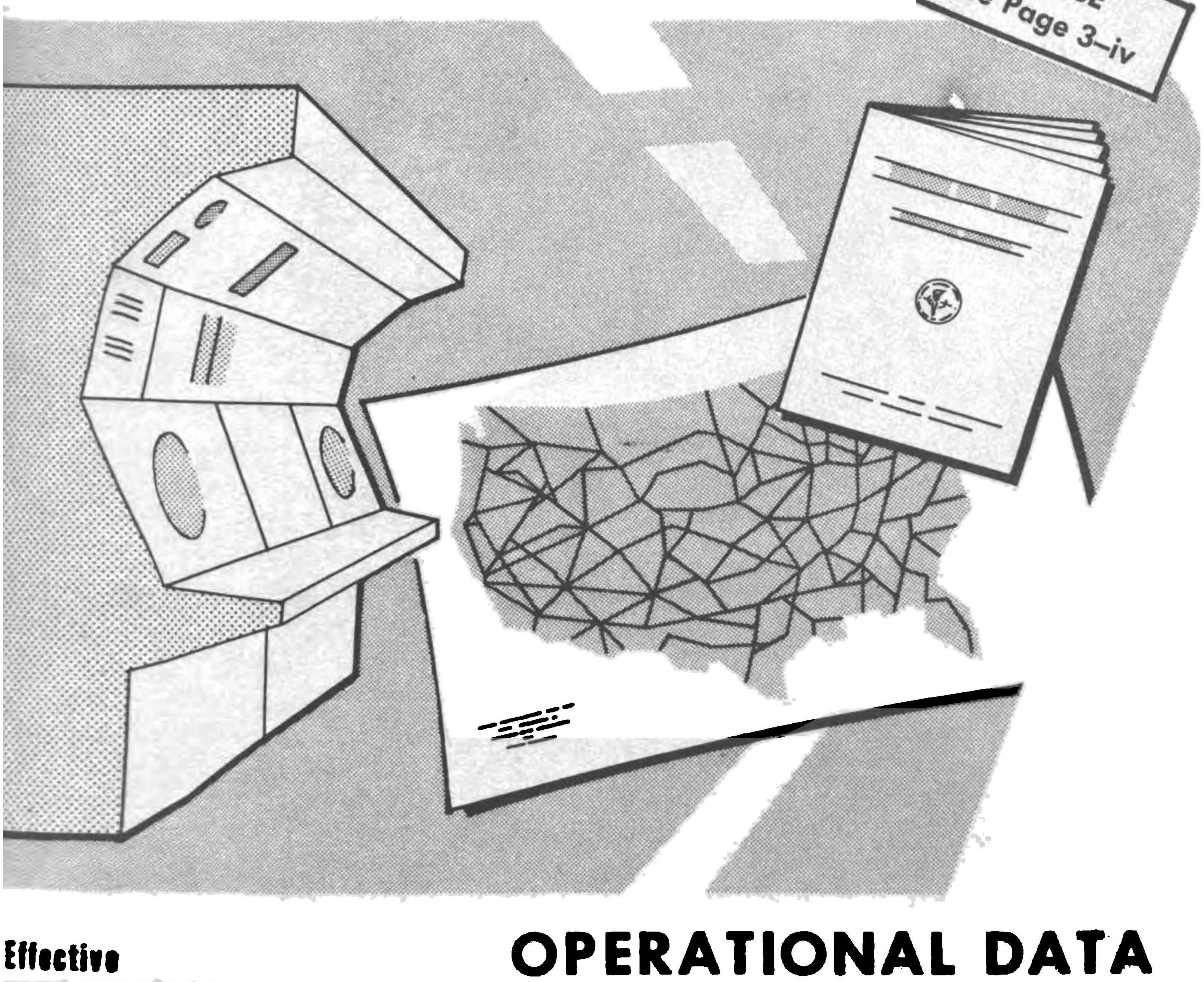
INDIA

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

PART 3

PLEASE
See Page 3–iv



Effective
26 MAY 1966
To 23 JUNE 1966

TL710

OPERATIONAL DATA AND NOTICES TO AIRMEN

AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately. Highlights of each part are described below.

PART 1

Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PART 2

Airport Directory

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are open to the general public. It includes all of their facilities and services, *except communications*, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities.

Included, also, is a list of selected Commercial Broadcast Stations of 100 watts or more of power.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PARTS 3 AND 3A

Operational Data and Notices to Airmen

Part 3 is issued every 28 days and contains a Master Alphabetical Index covering all Parts of the AIM; an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Parachute Jump Areas; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Restrictions to Enroute Navigation Aids; VOR Receiver Check Points; Special General and Area Notices; New and Permanently Closed Airports, and Oil Burner Routes.

Part 3A is issued every 14 days and contains Notices to Airmen considered essential to the safety of flight as well as supplemental data to Part 3.

Annual subscription price $9.00. (Foreign mailing, $2.25 additional.)

These publications are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT–430, Washington, D.C. 20553.

TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

Abbreviations 3–57
Address, Change of (See Notice of Editor) 3–59
Airport/Facility Directory Legend 3–ix
Airport/Facility Directory 3–1
Airports, New and Permanently Closed 3–129
Air Route Traffic Control Center Communications Frequency 3–45
Boeing Low Level IFR Operations 3–132
Chicago Terminal Area Chart 3–126
Dates of Latest Editions 3–154
Expanded Radar Service for Arriving and Departing Flights 3–127
Flight Information Publication Policy 3–105
FSS and Weather Bureau Telephone Numbers 3–47
Low Altitude VFR Military Operations 3–132
Master Alphabetical Index 3–v
Military Aerial Refueling Tracks 3–131
Notices to Airmen See Part 3–A
Notice to Editor 3–59
Oil Burner Routes 3–134
Parachute Jumping Areas 3–62
Part-time Controlled Airspace Designation 3–108
Part-time Manned Facilities and AIDS 3–109
Preferred Routes 3–68
Publication Schedule 3–61
Radio Class Designation 3–xii
Restrictions to Enroute Navigation Aids 3–90
Runway Gradient 3–xiii
Sectional Chart Bulletin 3–83
Simultaneous Opposite Direction Operations on Parallel Runways 3–107
Special Notices 3–105
  General (Notices with universal application) 3–105
  Area Notices (by state, city, etc.) 3–111
Special Use Airspace 3–131
Standard Instrument Approach Procedures Actions 3–151
Standard Instrument Departures (SIDs) 3–75
Substitute Route Structure 3–78
VOR Receiver Check Points 3–97

SEE SPECIAL NOTICES
FOR
TEMPORARY RESTRICTED AREA
JOINT TASK FORCE TWO, TEST 4.1
MAY 26, 1966—SEPT. 30, 1966

SEE NEW DF LISTING
PAGE 3–47

INDIANAPOLIS, INDIANA RACE DAY
PAGE 3–124

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetic Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. The Part number is in bold type.

A

Part and Page

Abbreviations 3–57
Address, Change of (See Notice to Editor) 3–59
ADIZ and Designation Mountainous Areas Chart 1–85
ADIZ Procedures 1–83
Advisory Information, VFR 1–72
Advisory Service, Jet 1–58
Aeronautical Advisory Stations (UNICOM) 1–74
Aeronautical (Light) Beacons 1–17
Aeronautical charts, Dates of Latest 3–154
Aeronautical Information and the National Airspace System 1–24
Aeronautical Multicom Service 1–74
Aeronautical Publications 1–48
Aeronautical Terms, Glossary of 1– 1
(AID), Airport Information Desk 3–109
AIM Publication Schedule 3–61
Aircraft Call Signs 1–21
Aircraft Fuel 2, 3
Aircraft Storage/Repair 2, 3
AIRMETS and SIGMETS 1–32
Air Navigation Radio Aids 1– 7
Airport Advisory Service (Non-Radar) 1–72
Airport, Air Navigation Lighting and Marking Aids 1–17
Airport Directory 2–1
Airport Elevation 2, 3
Airport/Facility Directory 3– 1
Airport Identifying Code 1–18
Airport, IFR 2 & 3
Airport Information Desk (AID) 3–109
Airport, Lighted Land 1–17
Airport, Lighted Water 1–17
Airport Lighting Facilities 1–17, 2 & 3
Airport Marking Aids 1–19
Airport, Military (Lighting) 1–18
Airports of Entry 1–81, 2 & 3
Airport Runway Data 2, 3
Airports, New and Permanently Closed 3–129
Air Rescue Centers 1–91
Air Traffic Control Radar Beacon System (ATCRBS) 1–16, 1–62
Airway Beacons 1–18
Airway/Route Systems 1–57
Airway/Route Course Changes 1–58
Alcohol 1–41
Altimetry 1–30
Altitudes, Traffic Pattern 2
Alphabet, Phonetic 1–23
Approach Control 1–74
Approach Light System, Instrument 1–18
Approach Procedures Actions, Instrument 3–151
Area Notices 3–105
Arrival 1–72
ARTCC Communications Frequencies 3–45
ATC Clearance 1–54

Part and Page

(ATIS) Automatic Terminal Information Service 1–72, 3
Auxiliary Lights 1–17

B

Beacon, Airway 1–18
Beacon, Aeronautical (Light) 1–17
Beacon, Marker 1–10
Beacon Operation, Daylight 1–18
Beacon, Radio 1– 7
Beacon, Rotating 1–17
Beacon, Standards (deviations from) 1–18
Bird Hazards 1–44
Broadcast Stations, Commercial 2–225
Bulletin, Section Chart 3–83

C

Call Signs, Aircraft 1–21
Call Signs, Ground Stations 1–21
Carbon Monoxide 1–42
Ceiling 1–1, 1–33
Change of Address (Notice to Editors) 3–59
Changeover Points (VOR) 1–64
Chart Bulletin, Sectional 3–83
Charts, Dates of Latest Prints 3–154
Chart, Oil Burner Route 3–132
Chart, ADIZ and Mountainous Area 1–85
Civil Use of Military Fields 3–106
Clear Air Turbulance 1–33
Clearance, ATC 1–54
Climbing/Descending Aircraft 1–65
Cloud Heights, Reporting of 1–33
Code, NOTAM 1–25
Collision Reporting, Near Mid-Air 1–40
Commercial Broadcast Stations 2–225
Communications, Direct Pilot/Controller 1–69
Communications, Enroute 1–66
Communications Failure 1–92
Communications Frequencies, ARTCC 3–45
Compass Locator, ILS 1–11
Composite Flight Plan (VFR/IFR) 1–49
Consolan 1–14
Contact Procedure, Radio Telephone 1–21
Continental Control Area 1–58
Crash Locator Beacon 1–90
Cruising Altitudes, Enroute 1–71

D

Departure 1–53
Departure Communications 1–53
Departure Control 1–56
Departure, Standard Instrument (SID) 1–55, 3–75
Designated Mountainous Areas chart and ADIZ 1–85
Designation, Radio Class 3-xii
Detouring Thunderstorms 1–36
Direct Communications, Controllers/Pilots 1–69
Direct Flights 1–51
Direction Finder (VHF/UHF) 1–14

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Directional Reporting 1-64
Distance Measuring Equipment (DME) 1- 8
Drugs 1-41

E

Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1- 89
Emergency Signals (Visual) 1-96
Enroute 1-57
Enroute Communications 1-66
Enroute Cruising Altitudes 1-71
Entry and Departure Requirements, U.S. 1-80
Expanded Radar Service for Arriving and Departing Flights 1-73, 1-127

F

FAA and NORAD Chart 1-88
Fatigue 1-41
Figures 1-22
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-105
Flight Information Publication Policy 3-105
Flight Service Stations/Weather Bureau Offices 3-47
Flight Standard District Offices 1-97
Frequency Pairing Plan 1- 9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-93

G

General Notices 3-105
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1- 1
Good Operating Practices 1- 5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H

Hand Signals 1-79
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-217
Holding 1-60
Hypoxia 1-41

I

IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-75
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-151
Instrument Departures (SID's), Standard 1-55, 3-75
Instrument Runway 1-20
Interception Pattern for Identification of Transport Aircraft 1-87
Interception Signals, U.S. 1-86

J

Jet Advisory Service 1-58

K

Key to Aviation Weather Reports 1-36

Part and Page

L

Lake, Island and Mountain Reporting Service 2-66
Landing 1-78
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-78
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-132

M

Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-79
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-131
Mountainous Area Chart and ADIZ 1-85

N

National Search and Rescue Plan 1-90
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-129
NORAD Chart, FAA and 1-88
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-59
Notices, Area 3-111
Notices, Special 3-105
Notices to Airmen 3A

O

Oil Burner Routes 3-134
Omnidirectional Range (VOR) 1-7
Operational Limitations VOR/VORTAC/TACAN 1- 9

P

Panic 1-43
Parachute Jumping Areas 3-62
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-108
Part-time Manned Facilities and AIDS 3-109
Permanently Closed Airports, New and 3-129
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-66
Positive Control Area 1-58
Precision Approach, Radar 1-15
Preferred Routes 3-68
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-105
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-61

R

Radar 1-15
Radar Assistance to VFR Aircraft 1-65
Radar Beacon System (ATCRBS) 1-62
Radar Controlled Approaches 1-15
Radar Enroute Service 1-59
Radar Monitoring of Instrument Approaches 1-76
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-12, 1-73
Radio Beacon 1- 7
Radio Class Designation 3-xii
Radio Communications Failure 1-92

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radio Interference 1–14
Radio Range L/MF 1–7
Radiotelephone Phraseology and Techniques 1–21
Receiver Check Points, VOR 1–8, 3–97
Refueling Tracks, Military Low Altitude Aerial 3–131
REIL, Runway End Identifiers 1–19, 2, 3
Repair, Aircraft 2, 3
Reporting, Directional 1–64
Reporting Service, Lake, Island and Mountain 1–66
Restricted Airspace 1–65
Restrictions to Enroute Navigation Aids 3–90
Rocky Mountain Reporting Service 1–68
Rotating Beacon 1–17
Runway End Identifiers (REIL) 1–19, 2, 3
Runway, Longest 2, 3
Runway Marking 1–19
Runway Surface 2, 3
Runway Visibility (RVV) 1–34
Runway Visual Range (RVR) 1–34
Runway Weight Bearing Capacity 2, 3

S

Safety of Flight (Wake Turbulence) 1–37
SCANTANA Procedures 1–83
Scheduled Weather Broadcasts 1–31
Scuba Diving 1–43
Seaplane Bases 2–212
Search and Rescue 1–90
Sectional Chart Bulletin 3–83
Sectional Charts, Dates of latest prints 3–154
SIDs (Standard Instrument Departures) 1–55, 3–75
SIGMET (Significant Meteorology), AIRMETS 1–32
Signals, Emergency 1–95
Signals, (Visual), **Emergency** 1–96
Signals, Light 1–53
Simultaneous Voice Transmissions from a Single Location 1–12
Special Notices 3–105
Special Use Airspace 1–70, 3–131
Special VFR Flight Clearance Procedures 1–54
Speed Adjustment of Arriving Aircraft 1–77
Standard Instrument Approach Procedures Actions 3–151
Standard Instrument Departures (SIDs) 1–55, 3–75
Storage, Aircraft 2, 3
Substitute Route Structure 3–78
Surveillance Radar 1–15

T

TACAN 1–8
Terminal Radar Service 1–74
Thunderstorms 1–36
Time 1–22
Traffic Information Service, Radar 1–73
Traffic Pattern Altitudes 2
Traffic Pattern Direction, Landing 1–78
Transcribed Weather Broadcasts 1–31
Trubulence, Clear Air (CAT) 1–33
Turbulence, Wake 1–37
Two-Way Radio Communications Failure 1–92

U

UNICOM (Aeronautical Advisory Station) .... 1–74, 2, & 3
U.S. Entry and Departure Requirements 1–80

V

VASI (Visual Approach Slope Indicator) 1–19
Vertigo 1–42
VFR Advisory Information 1–72
VFR Conditions on Top 1–51
VFR Flight Clearance Procedures 1–55
VHF UHF Direction Finder 1–14, 3
Visibility, Observations 1–34
Vision 1–42
Visual Approach Slope Indicator (VASI) 1–19
VOR 1–7
VOR Changeover Points 1–64
VOR Receiver Check Points 1–8, 3–97
VORTAC 1–8
VOT (VOR Test Signal) 1–8, 3

W

Wake Turbulence 1–37
Warning Areas 1–70
Weather 1–31
Weather Briefing 1–49
Weather Broadcasts Format 1–32
Weather Broadcast, Scheduled 1–31
Weather Broadcast, Transcribed 1–31
Weather Broadcast, Unscheduled 1–32
Weather Bureau Offices/Flight Service Stations 3–47
Weather Radar 1–34
Weather Advisories, In-Flight 1–32

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (−) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, alay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S-000).

S-Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC-3), etc.

T-Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC-6), etc.

TT-Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T-).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

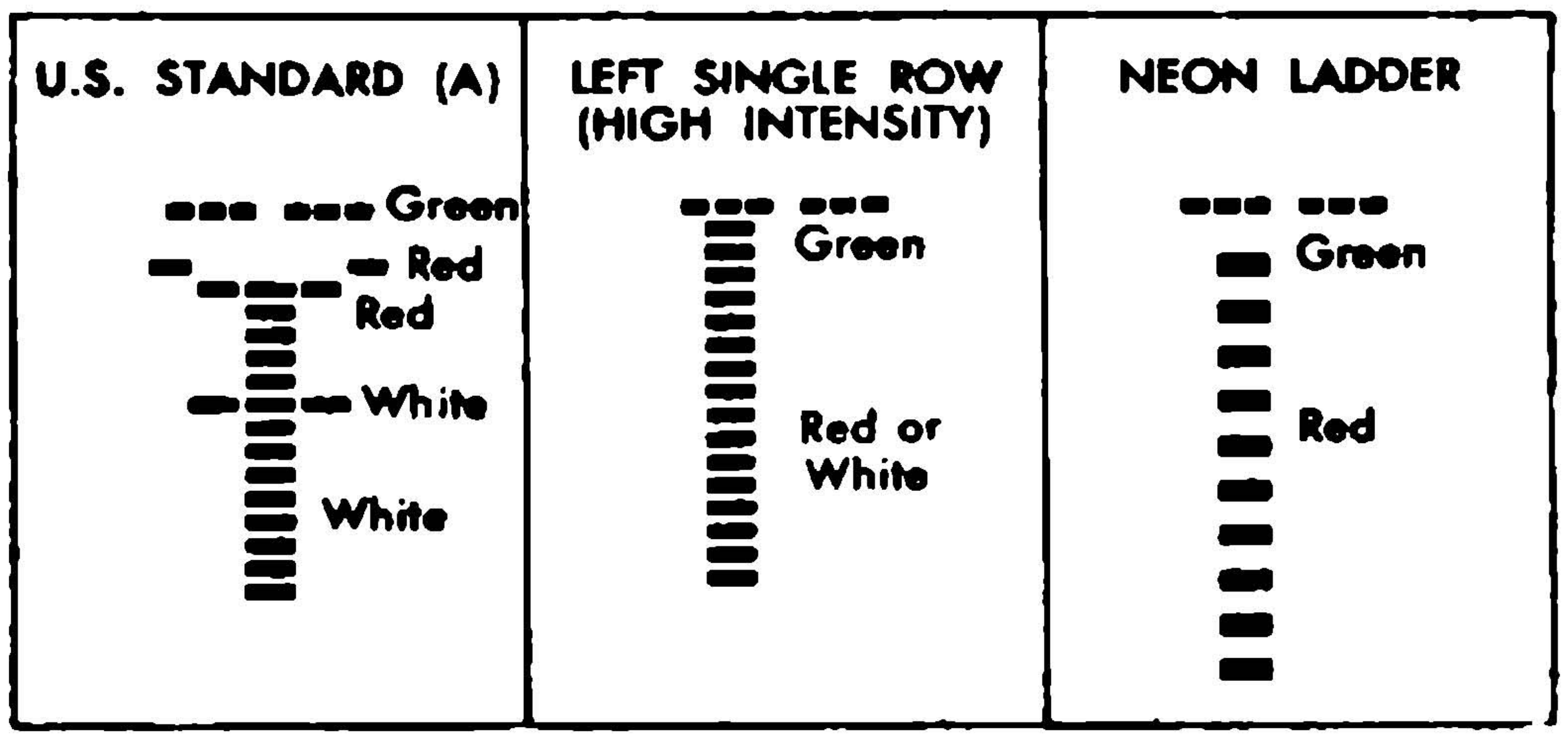
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting (when code **L4–7** is indicated, lighting **4, 5, 6, 7** is available). An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000′ out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)
13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	80 oct., at least.
F2	80/87 oct., or lower.
F3	91/96 oct., or lower.
F4	100/130 performance rating, or lower.
F5	115/145 performance rating, or lower.

TURBINE FUELS

TP–1	650 turbine fuels for civil jets.
JP–1	(Kerosene), **JP–3, JP–4, JP–5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25–September 26 and April 25–October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.
VASI—Visual Approach Slope Indicator, applicable runway provided.
RVV—Runway visibility, applicable runway provided.
RVR—Runway Visual Range, applicable runway provided.
FSS—The name of the controlling FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481-5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"**FEE**" indicates landing charges for private or nonrevenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"**Rgt tfc 13–31**" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a cross-out: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

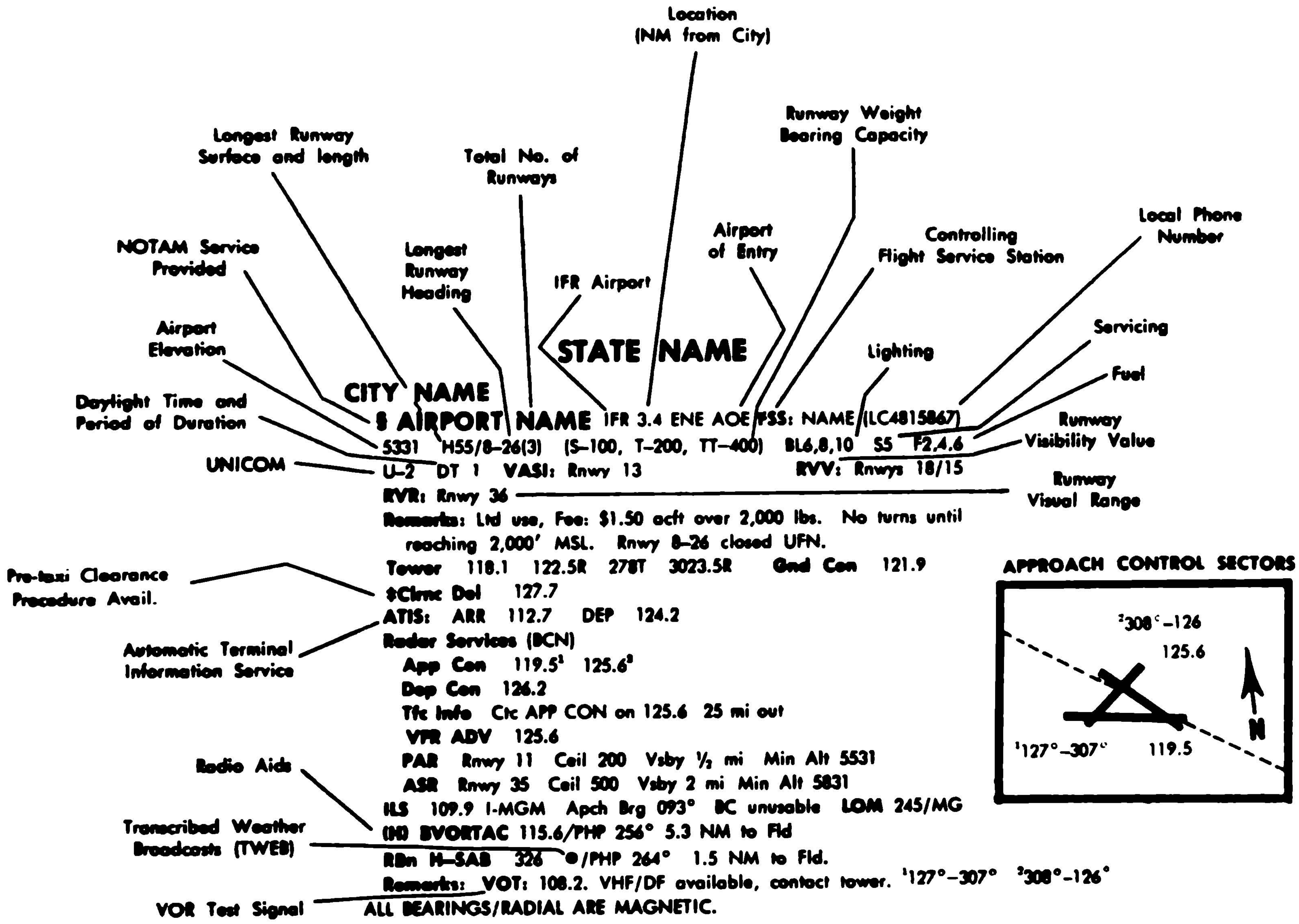
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U–1—122.8 mc (at airports without a control tower).

U–2—123.0 mc (at airports with a control tower). tower).

SAMPLE


Location (NM from City)
Longest Runway Surface and length
Total No. of Runways
Runway Weight Bearing Capacity
Local Phone Number
NOTAM Service Provided
Longest Runway Heading
IFR Airport
Airport of Entry
Controlling Flight Service Station
Airport Elevation
Lighting
Servicing
Fuel
Daylight Time and Period of Duration
Runway Visibility Value
UNICOM
Runway Visual Range
Pre-taxi Clearance Procedure Avail.
Automatic Terminal Information Service
Radio Aids
Transcribed Weather Broadcasts (TWEB)
VOR Test Signal
APPROACH CONTROL SECTORS
[2]308°–126
125.6
N
[1]127°–307°
119.5

CITY NAME

STATE NAME

§ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC4815867)
5331 H55/8–26(3) (S–100, T–200, TT–400) BL6,8,10 S5 F2,4.6
U–2 DT 1 **VASI:** Rnwy 13 **RVV:** Rnwys 18/15
RVR: Rnwy 36
Remarks: Ltd use, Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000′ MSL. Rnwy 8–26 closed UFN.
Tower 118.1 122.5R 278T 3023.5R **Gnd Con** 121.9
$Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
App Con 119.5[1] 125.6[2]
Dep Con 126.2
Tfc Info Ctc APP CON on 125.6 25 mi out
VFR ADV 125.6
PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° **BC** unusable **LOM** 245/MG
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H–SAB 326 ●/PHP 264° 1.5 NM to Fld.
Remarks: VOT: 108.2. VHF/DF available, contact tower. [1]127°–307° [2]308°–126°
ALL BEARINGS/RADIAL ARE MAGNETIC.

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000' MSL	115.2 smi (100 nmi)
L	Up to 18,000' MSL	46.06 smi (40 nmi)
T	Up to 12,000' MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

NOTE: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiators), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600–2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

SPECIAL NOTICE

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for that aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

ALABAMA

ANNISTON (L) BVOR 108.8/ANB FSS: ANNISTON
RBn[1] **BMH** 329/ANB
Remarks: [1]Unusable ngts.

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§BIRMINGHAM MUNI *IFR* 4NE FSS: BIRMINGHAM on fld
643 H92/5-23(2) (S-120, T-170, TT-300) BL6,8A,9,10 S5
F5, JP1, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Jet barrier on overrun rnwy 23. Rnwy threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I-BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) BVORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H-SAB 224●/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H-SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM FSS: MOBILE

BROOKWOOD (L) BVOR 111.0/BWA FSS: BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU FSS: HUNTSVILLE

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§DOTHAN *IFR* 7NW FSS: DOTHAN on fld
395 H56/18-36(3) (S-60, T-105, TT-190) BL6 S5 F4 U-1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
VFR ADV: Ctc Cairns APP/DEP CON
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF ctc FSS.

EUFAULA (L) BVOR 109.2/EUF FSS: DOTHAN

EVERGREEN (L) BVOR 116.8/EVR FSS: MOBILE

GADSDEN (L) BVORTAC 112.3/GAD FSS: ANNISTON

HAMILTON (L) BVOR 110.4/HAB FSS: MUSCLE SHOALS

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§HUNTSVILLE-MADISON *IFR* 3S FSS: MUSCLE SHOALS (DL)
619 H52/18-36 (2) (S-50, T-85, TT-130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I-HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF FSS: MONTGOMERY

MOBILE
§BATES FLD *IFR* 9W FSS: MOBILE on Fld
217 H78/14-32(3) (S-40, T-150, TT-280) BL4,6,8A,9 S5
F5 JP1, U2 **RVV** Rnwy 14
Remarks: Threshold displaced 1000′ NW runwy 32
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I-MOB Apch Brg 141° BC unusable **LOM:** 248/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn BH 248/MO 140° 4.6NM to fld.

ALABAMA—*Continued*

Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090-110° rad. LOM is BH.

MONTGOMERY
§DANNELLY FLD *IFR* 6SW FSS: MONTGOMERY on Fld
221 H90/9-27(3) (S-120, T-170), TT-300) BL4,6,8A,9 S5
F4 JP1 U2 **RVR:** Rnwy 9
Remarks: J-Bar runwy 9-27. Closed to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I-MGM Apch Brg 093° **LOM** 245/MG
VHF/DF ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL FSS: MUSCLE SHOALS

REDSTONE (L) VOR 111.2/HUA FSS: MUSCLE SHOALS
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM FSS: MONTGOMERY

TALLADEGA (L) BVOR 108.4/TAG FSS: ANNISTON

TUSCALOOSA (L) BVORTAC 117.8/TCL FSS: TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE FSS: MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK FSS: PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG FSS: PHOENIX

COCHISE (L) BVORTAC 110.4/CIE FSS: DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG FSS: DOUGLAS

GILA BEND (H) BVORTAC 116.6/GBN FSS: PHOENIX

LIBBY (L) VOR 111.6/FHU FSS: DOUGLAS

PEACH SPRINGS (H) BVORTAC 112.0/PGS FSS: PRESCOTT

PHOENIX
§SKY HARBOR MUNI *IFR* 3E FSS: PHOENIX on Fld
1122 H103/8R-26L(2) (S-100, T-200, TT-370) BL4,10 S5
F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R-26L avbl ngts.
Phoenix Tower 118.7 122.5R 120.9 **Gnd Con** 121.9
Clrnc Del 120.4
Phoenix App Con 118.1 122.5R 115.6T
Phoenix (H) BVORTAC 115.6/PHX 256° 5.3NM to fld.
Phoenix RBn BHZ 326/PHX 264° 1.5NM to fld.
VHF/DF: ctc FSS.
Remarks: **VOT:** 109.0

PRESCOTT (H) BVORTAC 114.1/PRC FSS: PRESCOTT

ST. JOHNS (H) BVORTAC 112.3/SJN FSS: ZUNI

SAN SIMON (H) BVORTAC 115.4/SSO FSS: DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC FSS: PRESCOTT

ARIZONA—*Continued*

§TUCSON INTL ***IFR*** 6S AOE **FSS:** TUCSON on Fld
2630 H120/12L-30R(3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2
Remarks: 5649′ avbl lndg rnwy 3, 6000′ avbl rnwy 21. Jet arresting gear rnwy 12L-30R. 1000′ overrun each end rnwy 12L-30R.
Tower: 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.5 134.1 126.2 125.9 125.1 122.5R
Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.
VHF/DF ctc FSS.
(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.
RBn H-SABZ 338●/TUS 083° 10.6NM to fld.

WINSLOW (H) BVORTAC 112.6/INW **FSS:** PRESCOTT
RBn H-SAB 266●/INW

§YUMA MCAS/INTL ***IFR*** 3S AOE **FSS:** YUMA on Fld
213 H133 (3L-21R)(4) (S-103, T-225, TT-410) BL4,6 S5 F4
Remarks: Rnwy 17-35 GWT (S-170, T-200, TT-400). Jet arresting gear rnwys 3L-21R, 3R-21L.
Tower 126.2 121.5 122.5R 119.3 **Gnd Con:** 121.9
VHF/DF ctc twr.
(H) BVORTAC 116.8/YUM 167° 6.0NM to fld.
RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH **FSS:** DYERSBURG
RBn HW 311/BYH

BRUINS RBn MHW 215/BSA **FSS:** MEMPHIS

CABOT (L) VOR 108.4/CBT **FSS:** LITTLE ROCK
RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT **FSS:** EL DORADO

DRAKE (T) BVOR 108.8/DAK **FSS:** FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD **FSS:** EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV **FSS:** FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP **FSS:** HARRISON

§FORT SMITH MUNI ***IFR*** 4SE **FSS:** FORT SMITH on Fld
468 H80/7-25(2) (S-90, T-120, TT-) BL4,6,8A,9 S5
F-5, JP-1 U2 **RVV:** Rnwy 25
Remarks: Jet barrier rnwy 7-25.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 125.4 126.2 118.3 110.4T 109.5T 311T
ILS 109.5 I-FSM Apch Brg 254° **BC** unusable **LOM:** 223/FS
(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.
RBn BMH 311/FSM 161° 9.8NM to fld.
RBn HW 223/FS 254° 6.9NM to fld.
Remarks: LOM is HW.

HARRISON (L) BVOR 110.8/HRO **FSS:** HARRISON

HOT SPRINGS
§MEMORIAL FLD ***IFR*** 3SW **FSS:** PINE BLUFF (LC NA 4-4481)
535 H50/5-23(2) (S-35, T-49, TT-78) BL4 S5 F4
Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7
Hot Springs App Con 120.3 122.5R 110.0T 248T
Hot Springs (L) VOR 110.0/HOT on fld.
Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK
§ADAMS FLD ***IFR*** 2E **FSS:** PINE BLUFF (LC FR 6-4348)
257 H70/4-22(3) (S-49, T-173, TT-136) BL4,6,8A,9 S5
F4, JP1, JP4 U2 **RVV:** Rnwy 4
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T

ARKANSAS—*Continued*

Little Rock Dep Con 118.1
Tfc Info All inbnd acft ctc App Con 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I-LIT Apch Brg 041° **LOM:** 219/LI
Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.
Little Rock RBn BH 353/LIT 316° 3.3NM to rnwy 32.
Remarks: [1]001-180° [2]181-360°.

MONTICELLO (L) BVORTAC 111.6/MON **FSS:** PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF **FSS:** PINE BLUFF

ROGERS RBn MHW 263/ROG **FSS:** FAYETTEVILLE

STUTTGART RBn MHW 269/SGT **FSS:** PINE BLUFF
Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK **FSS:** TEXARKANA
RBn SABH 329●/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG **FSS:** WALNUT RIDGE

CALIFORNIA

ARCATA
§ARCATA-EUREKA ***IFR*** 7NW **FSS:** ARCATA on Fld
217 H60(2)(13-31) (S-90, T-140, TT-260) BL5,6,8A,9,10 F4 DT2
VASI: Rnwy 13 **RVV:** Rnwy 31
Remarks: Rgt tfc rnwys 13, 19.
VHF/DF ctc FSS.
ILS 109.5 I-ACV Apch Brg 314° BC unusable **LMM:** 233/CV
Remarks: SLMM unusable btn 120-150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE **FSS:** PASO ROBLES

BAKERSFIELD
§MEADOWS FIELD ***IFR*** 4NW **FSS:** BAKERSFIELD on Fld
488 H57/12L-30R(2) (S-110, T-170, TT-300) BL4,6,8A,9
S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R
Tower 118.1 122.5R **Gnd Con** 121.9
Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8
ILS 109.9 I-BFL Apch Brg 299° **LOM:** 278/BF
VHF/DF ctc FSS.
Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR **FSS:** SALINAS

BLYTHE (H) BVORTAC 117.4/BLH **FSS:** BLYTHE
RBn SABH 251●/BLH

BURBANK
§LOCKHEED AIR TERMINAL ***IFR*** 3NW **FSS:** LOS ANGELES (DL)
775 H69 (15-33)(2) (S-80, T-150, TT-280) BL5,6,8A,9,11
S5 F5, JP1, JP4 U2 DT2 **REIL** rnwy 15
Remarks: Rnwy 15 displaced threshold 900′. S 6060′ avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ lndg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
Burbank Tower 118.7 122.7R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
Tfc Info Ctc Burbank App Con 30 NM out on 120.9.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS [2]109.5 I-BUR Apch Brg 076° **LOM:** 272/BU
VHF/DF[1] contact Tower.
Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°-085°; below 4000′ 085°-240°; below 6000′ 240°-320°; below 10,000′ 320-360°. [2]Glide slope unusable below 1075′ MSL. **VOT:** 110.0

CAMARILLO RBn HW 359/CAV **FSS:** LOS ANGELES

CALIFORNIA—*Continued*

CASTLE (L) VOR[1] 114.2/MER
RBn MHW 409/ME
Remarks: [1]Inoperative.

CHICO (T) BVOR 109.8/CIC **FSS:** RED BLUFF

COLTON RBn HWZ 397/SB **FSS:** ONTARIO

CONCORD
§BUCHANAN FIELD ***IFR*** 1N **FSS:** OAKLAND (DL)
19 H50/1-19(3) (S-60, T-80, TT-130) BL5 S5 DT2 F4
Tower[1] 119.7 122.4R **Gnd Con** 121.9
Radar Services:
Travis App Con 119.9
T-BVOR 110.6/CCR 171° 3.1 NM to fld.
Remarks: [1]Oper 1500–0700Z.

CRESCENT CITY (L) BVOR 109.0/CEC **FSS:** CRESCENT CITY
Remarks: Class to be changed to (L) BVORTAC June 17, 1966.

DAGGETT (L) BVORTAC 113.2/DAG **FSS:** DAGGETT

DOWNEY RBn HW 371/DOW **FSS:** LOS ANGELES

EDWARDS (L) VORW 116.4/EDW
RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ
RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW **FSS:** BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM **FSS:** LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS **FSS:** MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT **FSS:** ARCATA

§FRESNO AIR TERMINAL ***IFR*** 5 NE **FSS:** FRESNO on Fld
332 H92/11L-29R(3) (S-50, T-70, TT-140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.
Remarks: Rgt tfc rnwy 7 & 11. Jet barrier arresting gear 11L-29R.
Tower 118.7 126.2 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.6 126.9
Dep Con 126.9
ILS 110.3 I-FAT Apch Brg 289° **LOM:** 266/FA
VHF/DF ctc FSS.
(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.
RBn H-SAB 344●/FAT 049° 6.2 NM to fld.

§FRESNO-CHANDLER ***IFR*** 2W **FSS:** FRESNO (DL)
283 H35/11R-29L(2) (S-17 T-TT-) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 11R. Rnwy 29L displaced threshold 730′ NW, rnwy 11R displaced 495′ SE.
Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7
Radar Services: (BCN)
Fresno App Con 119.6 126.9
Fresno Dep Con 126.9
Remarks: [1]Oper 1400–0600Z.

FRIANT (L) BVORTAC 115.6/FRA **FSS:** FRESNO

§FULLERTON MUNI ***IFR*** 3W **FSS:** LOS ANGELES (DL)
96 H31/6-24(1) (S-8, T-, TT-) BL5,11 S5 F4 U2 DT2
REIL: Rnwy 24.
Remarks: Rnwy 6 displaced threshold 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 displaced threshold 263′ W. 2857′ avbl lndg rnwy 24. Rnwy 24 apch restricted by poleline. Rgt tfc rnwy 24. Entry alt 1200′ MSL.
Tower[1] 119.1 122.6R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
Remarks: [1]Oper 1400–0600Z.

CALIFORNIA—*Continued*

GAVIOTA (L) BVORTAC 116.5/GVO **FSS:** SANTA BARBARA

GEORGE (L) VOR 108.6/VCV **FSS:** PALMDALE

GLENDALE RBn MHW 341/GCE **FSS:** LOS ANGELES
Remarks: To be decomsnd June 23.

GOFFS (L) BVOR 114.4/GFS **FSS:** NEEDLES

GORMAN (L) BVORTAC 116.1/GMN **FSS:** BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

§HAWTHORNE MUNI ***IFR*** 1E **FSS:** LOS ANGELES (DL)
64 H45/7-25(1) (S-30, T-40, TT-) BL4,11 S-5 F4 U2 DT2
REIL[1] rnwy 25
Remarks: Rnwy 7 displaced threshold 1025′ E, 3975′ avbl lndg rnwy 7. Rnwy 25 displaced threshold 475′ W. 4525′ avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. Rnwy 25 apch restricted by pole line. Rgt tfc E. [1]REIL inop 2300–0700. Prior approval rqrd jet powered acft.
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 124.3[2] 125.2[3]
Remarks: [1]Oper 1500–0700Z. [2]045°-224°. [3]225°-044°.

HAYWARD RBn MHW 242/HWD **FSS:** OAKLAND
46 H52/10R-28L(2) (S-100, T-190, TT-290) BL4 S5 F4 DT2
Remarks: Rnwy 10R threshold displaced 800′ on W end.
Tower 118.9 122.5R 212T **Gnd Con** 121.7
Radar Services:
Oakland App Con 118.1 116.8T
Oakland Dep Con 124.7 120.9 116.8T
Remarks: [1]Oper 0600–2400 lcl time.

HAYWARD RBn MHW 242/HWD **FSS:** OAKLAND

HECTOR (H) BVORTAC 112.7/HEC **FSS:** DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL **FSS:** IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI **FSS:** SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS **FSS:** PALMDALE

LA VERNE
BRACKETT FLD ***IFR*** 1SW **FSS:** ONTARIO (DL)
997 H40/8-26(1) BL4 S5 U2 DT2
Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.
Tower[1] 118.2 122.7R ~~121.5~~ **Gnd Con** 121.7
VFR ADV: Ctc March APP CON 120.8, 122.5R/DEP CON 125.5, 122.5R
Remarks: [1]Oper 0700–2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN **FSS:** STOCKTON

LONG BEACH ***IFR*** 3NE **FSS:** LOS ANGELES (DL)
§LONG BEACH (Daugherty Fld)
58 H100/12-30(5) (S-90, T140, TT-240) BL4,6,8A,10,11,12 S5 F5, JP1, JP4 U2 DT2
Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R, 34R.
Long Beach Tower 119.5[1] 120.5[3] 126.2[2] 122.4R[1] 242T[1]
Gnd Con 121.9
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558
ILS 110.3 I-LGB Apch Brg 300° **LOM** 233/LG
VHF/DF[1] contact Tower.

CALIFORNIA—*Continued*

(L) BVORTAC 115.7/LGB 274° 4.4NM to fld
Remarks: [1]For all left rnwys. [2]For all right rnwys. **VOT:** 109.0.

§LOS ANGELES INTL ***IFR*** 9SW **FSS:** LOS ANGELES on Fld
126 H120/7R–25L(4) (S–100, T–180, TT–340)
BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R **RVV:** Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R
Remarks: Rnwy 34 threshold displaced 1679′ N. Rnwys 25L, 25R thresholds displaced 600′ W. Rnwy 16–34 (S125 T200+ TT400+).
Tower 118.9 125.8 123.7[1] 122.7R **Gnd Con** 121.6 121.8
Clrnc Del 126.85 121.4
ATIS: 108.5
Radar Services:
App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Dep Con 125.2[2] 124.3[3]
Tfc Info ctc App Con 30 mi out.
PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.
ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426
ILS[4] 109.9 I-LAX Apch Brg 248° **LOM:** 266/LA
VHF/DF ctc twr.
(H) BVORTAC 113.6/LAX at fld.
RBn SABH 332●/LAX 245° 3.4 NM to fld.
Remarks: [1]Heli Operns. [2]035–224° [3]225–044° [4]Glide slope unusable below 300′ MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)
§VAN NUYS ***IFR*** 3NW **FSS:** LOS ANGELES (DL)
800 H80/16R–34(2) (S–70, T–120, TT–210) BL5,11 S5 F4 JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R
Remarks: Rnwy 16R threshold displaced 1376′ S. 6624′ avbl lndg rnwy 16R. Rnwy 16L–34R daylgt use only. Rnwy 16L threshold displaced 1432′ S. 2568′ avbl lndg rnwy 16L. Parallel 2000′ strip bet 16L–34R and 16R–34L clsd except emerg.
Tower 120.3[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7
ATIS:[1] 113.1
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
(L) VOR 113.1/VNY on fld.
Remarks: [1]Oper 0600–2200 lcl time. [2]360–149° and departure rnwy 16L–34R. [3]150–359° and departure rnwy 16R–34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN **FSS:** FRESNO

MARYSVILLE (T) BVOR 110.8/MYV **FSS:** MARYSVILLE

MATHER (L) VORW 114.6/MHR **FSS:** SACRAMENTO

MAXWELL (L) BVORTAC 110.0/MXW **FSS:** MARYSVILLE

McCLELLAN RBn MHW 395/MCC **FSS:** SACRAMENTO

MODESTO
§CITY-COUNTY ***IFR*** 2 SE **FSS:** STOCKTON (DL)
96 H50 (2) BL4 S5 F4 DT2
Remarks: Rgt tfc rnwys 11R, 29R.
Tower[1] 120.0 122.7R **Gnd Con** 121.7
Modesto (T) BVOR 108.4/MOD
Remarks: [1]Oper 1400–0600Z.

MONTAGUE
SISKIYOU COUNTY ***IFR*** 4NE **FSS:** MONTAGUE ON FLD
2651 H75(1) (S90 T120 TT1 75) BL4 S5 F4 DT 2
Tower 126.2 118.7T 122.5R
Montague RBn BH 382/SIY
Remarks: Opers 1600–2400Z. Mon–Fri, clsd holidays. During hrs twr not in opern AAS will be provided by the FSS.

CALIFORNIA—*Continued*

§MONTEREY PENINSULA ***IFR*** 3SE **FSS:** SALINAS (DL)
220 H50/10–28(2) (S–40, T–70, TT–120) BL5,6,8A,9 S5 F5, JP1 U2 DT2
Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.
Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9
Monterey App Con 120.8
Monterey Dep Con 120.8
ILS[1] 110.1 I-MRY Apch Brg 096° **LOM:**[2] 281/MR
Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130–150°.

§NAPA COUNTY 5S **FSS:** OAKLAND (DL)
33 H53/18–36(2) BL4 S5 F4 DT2
Tower[1] 118.8 122.7R **Gnd Con** 121.7
(L) BVORTAC 112.1/APC
Remarks: [1]Opers 1500–0700Z

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON L) VORW 117.6/SBD
RBn MHW 347/BD

OAKLAND
§METROPOLITAN-OAKLAND INTL ***IFR*** 4S **FSS:** OAKLAND on Fld
6 H100/11–29(4) (S–100, T–160, T–290) BL6,8A,9,14,15 S5 F5, TP1, JP4 U2 DT2 **RVV:** Rnwy 27R **RVR:** Rnwy 29
Remarks: Rnwy 33 threshold displaced 2113′ N. Rgt tfc rnwys 27R, 9R, 33 & 11.
Oakland Tower 118.3 126.0 122.6R 116.8T
Clrnc Del 121.1
Gnd Con 121.9 121.6
ATIS: 108.7 109.9
Radar Services: (BCN)
Oakland App Con 118.1[1] 116.8T 120.9[2]
Oakland Dep Con 124.7
Tfc Info Call App Con 25 mi out.
PAR[4] Rnwy 29 Ceil 200 Vslby ½ mi Min Alt 206
ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.
ILS 108.7 I-INB Apch Brg 293° BC unusable **LOM:** 266/IN
109.9[5] I–OAK Apch Brg 275° BC unusable
VHF/DF[3] available, contact Tower.
Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.
Oakland RBn SABH 362●/OAK on fld.
Remarks: [1]271–090° 090–270° [3]Unusable below 6000′ MSL 360–050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. [5]Glide slope rnwy 27 unusable for auto apchs. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

§ONTARIO INTL ***IFR*** 2E **FSS:** ONTARIO on Fld
952 H100/7–25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 1000′ on W end. 1000′ overrun E end rnwy 7–25.
Tower 118.5 122.5R **Gnd Con** 121.9
Clrnc Del 120.6
Radar Services: (BCN)
March App Con 120.8 122.5R 111.4T
March Dep Con 125.5 122.5R
ILS 109.7 I–ONT Apch Brg 255° **LOM:** 227/OM
(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VORTAC 111.2/OAF **FSS:** SANTA BARBARA

OXNARD
§VENTURA COUNTY ***IFR*** 1W **FSS:** SANTA BARBARA (DL)
43 H59/7–25(1) (S–36, T–48 TT–75) BL4,11 S5 F4, JP4 DT2 **REIL** rnwy 25.
Remarks: Rnwy 25 threshold displaced 1377′ W. 4570′ avbl

CALIFORNIA—*Continued*

Indg rnwy 25. Rnwy 7 threshold 750′ E. 5197′ avbl Indg rnwy 7.

Tower 120.7 122.4R **Gnd Con.** 121.9
Oxnard App Con 124.7 122.5R
Oxnard Dep Con 124.7
Ventura (L) BVORTAC 108.2/VTU
Remarks: [1]Opers 1400–0600Z.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF
RBn SABH 338/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

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§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)
816 H46/9–27(2) BL5, 11 S5 F4 U2 DT2
Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.
Tower[1] 121.0 122.6R ~~121.5~~ **Gnd Con** 121.7
VFR ADV Ctc March App Con 120.8 122.5R/Dep Con 125.5 122.5R
(T) VOR 111.4/RAL
Remarks: [1]Opers 1400–0600Z.

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§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld
21 H60/2–20(3) (S–90, T–120, TT–180) BL4,6,12 S5 F4, TP–1 U2 DT2 **RVV:** Rnwy 2
Remarks: Rnwy 16 apch restricted by antenna-glide angle 12 to 1. 2500′ apch lgtg.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS: 110.3
Radar Services: (BCN)
App Con 119.1 125.2 121.0 122.5R
Dep Con 124.5
VHF/DF ctc FSS.
ILS 110.3 I–SAC Apch Brg 016°
(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO (H) BVORTAC 117.8/SAN **FSS:** SAN DIEGO

SAN DIEGO (H) BVORTAC 117.8/SAN

§MONTGOMERY FLD 6N **FFS:** SAN DIEGO (LC 296–3181)
423 H34/10–28(2) (S30– T–, TT–) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwys 5, 10. Unattended ngts—keep rnwy lgts in sight during ngt lndgs.
Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9
Remarks: [1]Opers 0700–2300 lcl time

§SAN DIEGO CO–GILLESPIE FLD 10NE **FSS:** SAN DIEGO (LC 296–3181)
385 H53(9–27(2) (S–67, T–113, TT) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl lndg rnwy 27. Rnwy 17–35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.
Gillespie Tower[1] 120.7 122.7 **Gnd Con** 121.7
Remarks: [1]Oper 0700–2300 lcl time

§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE **FSS:** SAN DIEGO on Fld
15 H87/9–27(2) (S–100, T–200, TT–400) BL5,6,8A,9,11 S–5 F5, JP1 U2 DT2 **REIL:** Rnwy 27

CALIFORNIA—*Continued*

Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl lndg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions.
Tower 118.3 122.5R 109.6T **Gnd Con** 121.7
Radar Services: (BCN)
San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T
San Diego Dep Con 125.7[3] 125.3[4]
Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I–SAN Apch Brg 092° **LOM:** 278/SA
Lindbergh (L) BVOR 109.6/LIF on fld.
Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

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§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)
12, H97(10L–28R) (4) (S–200, T–200, TT–400) BL6,8A,9,10,11,12 S–5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVV:** Rnwy 19 **RVR:** Rnwy 28R
Remarks: Rnwy 28R displaced threshold 200′ NW. 9496′ avbl lndg rnwy 28R. Rnwy IR displaced threshold 1100′ NE. 8400′ avbl lndg rnwy IR. REIL N end rnwy 19L and E end rnwy 28L inop.
Tower 120.5 122.7R **Gnd Con** 121.8
$Clrnc Del 121.4
ATIS: 111.2
Radar Services:
App Con 124.9[1] 119.3[2] 111.2T 109.5T
Dep Con 124.4 128.5
PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.
ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412.
Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512
ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF
VHF/DF available, contact tower.
(L) VOR 111.2/SFO at fld.
RBn MHW 275/SIA 191° 0.6 to rnwy 19L.
Remarks: [1]315–134°, [2]135–314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0 unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

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§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)
56 H78/12R–30L (2) (S–100, T–130, TT–210) BL6,8A,9 S5 F5, JPI U2 DT2 **RVV:** Rnwy 30L
Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl lndg rnwy 30L. Twr unable to see NE tfc patn.
Tower 120.7 122.4R **Gnd Con** 121.7
Radar Services: (BCN)
Moffett App Con 120.1 123.7 122.4R 110.9T 108.2T
Moffett Dep Con 121.3 122.4R 108.2T
Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
(L) VOR 108.2/SJC on fld.

SAN LUIS OBISPO (L) BVORTAC 112.4/SBP **FSS:** PASO ROBLES

SANTA ANA

§ORANGE COUNTY *IFR* 4 S **FSS:** LOS ANGELES (DL)
53 H57/IL–19R(2) (S–68, T–95, TT–170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.

CALIFORNIA—*Continued*

Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

§SANTA BARBARA MUNI ***IFR*** 7 W **FSS:** SANTA BARBARA on fld
14 H47/7–25 (3) (S–40, T–71, TT–117) BL4,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 25 overrun unlgtd. Rnwy 25 threshold displaced 296′ W, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I–SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC FSS: LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX FSS: SANTA BARBARA

§SANTA MONICA MUNI ***IFR*** 3 E FSS: LOS ANGELES (DL)
175 H50/3–21 (1) S–80, T–120, TT–220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[1] 120.1 122.6R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[3] 124.5[3] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°–225°, [2]225°–044° **VOT:** 110.2 [3]Oper 0700–2300 lcl time. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§SONOMA COUNTY ***IFR*** 6 NW **FSS:** UKIAH (DL)
125 H50/14–32(2) (S–80, T–130, TT–220) BL4 S5 F4 U2 DT2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU **FSS:** OAKLAND

§STOCKTON METROPOLITAN ***IFR*** 3S **FSS:** STOCKTON on fld
27 H86/11L–29R(4) (S–100, T–200, TT–400) BL6 S5 F4 TP1 U2 DT2
Remarks: First 2000′ rnwy 29R clsd 1500–0200Z Mon–Fri.
Tower 120.3 122.5R **Gnd Con** 121.9
Radar Services:
App Con 125.1 116.0T 109.1T
ILS 109.1 I–SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§LAKE TAHOE 2SE **FSS:** SACRAMENTO (DL)
6263 H85/18–36(1) BL4 F4 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 6.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR 113.2/LTA
Remarks: [1]Opers 0700–2300 lcl time

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

§TORRANCE MUNI ***IFR*** 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L–29R(2) (S–30, T–50, TT–80) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L–29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy 11L–29R. Rnwy 11R–29L open 6 am to 10 pm. Rnwy 11L–29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 118.1 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 127.2
Remarks: [1]Oper 0600–2200 lcl time. [2]045°–224°. [3]225–044°.

CALIFORNIA—*Continued*

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG **FSS:** SANTA BARBARA

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

COLORADO SPRINGS
§PETERSON FIELD ***IFR*** 6 SE **FSS:** DENVER (LC 634–3127)
6172 H110/17–35(3) (S–100, T–200, TT–400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17–35. 1000′ overrun each end rnwy 17–35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I–COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] available, contact tower.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340–055° and 15 nmi 245–270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER
§STAPLETON INTL ***IFR*** 4 E **FSS:** DENVER on Fld
5331 H115/17–35(3) (S–120, T–200, TT–350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 35 **REIL:** Rnwy 17.
Remarks: Twr unable to determine whether acft are on correct final apch to rnwys 8L–8R and 26L–26R. Rnwy 17–35 clsd every Mon 1530–1730Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3
Radar Services: (BCN)
Denver App Con 119.3[1] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 8, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I–DEN Apch Brg 257° **LOM:** 362/DE
108.1 I–SPO Apch Brg 350° **LMM:** 210/PO
VHF/DF available, contact tower.
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270°–089°. [2]090–269°. **VOT:** 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC **FSS:** FARMINGTON

DURANGO (L) BVOR 108.2/DRO **FSS:** FARMINGTON

ENGLEWOOD RBn H–SAB 379●/EWD **FSS:** DENVER

GILL (L) BVOR 108.8/GLL **FSS:** DENVER

GRAND JUNCTION
§WALKER FIELD ***IFR*** 3NE **FSS:** GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12 S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29

COLORADO—*Continued*

Tower 118.1 122.5R **Gnd Con** 121.9

Grand Junction App Con 119.7 122.5R 112.4T 110.3T

ILS^{1} 110.3 I–GJT Apch Brg 110°

Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.

Grand Junction RBn^{2} **MHW** 396/GJT 110° 9.3NM to fld.

Remarks: ^{1}Glide slope unusable 5158′ and from $\frac{3}{4}$ NM to rnwy threshold. ^{2}Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC FSS: GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO FSS: LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC FSS: DENVER

KREMMLING (H) BVORTAC 113.8/RLG FSS: EAGLE

LAMAR (H) BVORTAC 116.9/LAA FSS: LA JUNTA

LOWRY (L) VOR 112.7/LRY FSS: DENVER

MEEKER (L) BVORTAC 111.8/EKR FSS: EAGLE

PETERSON (L) VORW 109.0/PEF FSS: DENVER

§PUEBLO MEML ***IFR*** 5E FSS: PUEBLO on Fld

4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F5 JP1 **RVV:** Rnwy 7

Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.

Tower 119.1 126.2 122.5R **Gnd Con** 121.9

App Con 120.1 116.7T

ILS 109.5 I–PUB Apch Brg 075° **LOM:** 302/PU

(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.

RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC FSS: AKRON

TOBE (L) BVORTAC 115.8/TBE FSS: TRINIDAD

TRINIDAD RBn SABH 329●/TAD FSS: TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI ***IFR*** 3SE

FSS: WINDSOR LOCKS (LC ED 5–6097)

9 H47 (11–29(3) (S–36.5, T–55.5, TT–) BL5,6 S5 F5 JP1, JP4 U2 DT2

Remarks: Apch to rnwys 16, 29 blkd by trees.

Tower 120.9 122.5R 108.8T **Gnd Con** 121.9

Westchester App Con 121.2 122.5R 3023.5Rx

(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON FSS: PROVIDENCE, R.I.; CS/T

RBn MHW 245/GON (LC GI–3–3245)

Remarks: Oper by State.

HARTFORD (L) BVOR 114.9/HFD FSS: WINDSOR LOCKS

RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD FSS: WINDSON LOCKS

Remarks: Comsng delayed UFN.

NEW HAVEN (T) BVOR 110.0/HVN FSS: WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW FSS: PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT FSS: WORCESTER

WINDSOR LOCKS

§BRADLEY FIELD ***IFR*** 3W FSS: WINDSOR LOCKS on Fld.

173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10 S5 F5, JP4,5 U2 DT2 **VASI:** Rnwy 33

Remarks: Rnwy 6–24 A–Gear both ends.

Tower 120.3 122.5R

Radar Services:

App Con 119.4 124.6 122.5R

Dep Con 125.35

ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573

CONNECTICUT—*Continued*

ILS 110.3 I–BDL Apch Brg 058° **LOM:** 388/BD

Remarks: Glide slope rnwy 6 unusable below 373′.

DELAWARE

DOVER (T) VOR 108.4/DOV FSS: MILLVILLE

Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO FSS: MILLVILLE

WATERLOO (L) BVOR 112.6/ATR FSS: SALISBURY

WILMINGTON

§GREATER WILMINGTON ***IFR*** 4S FSS: MILLVILLE (LC 652–5419)

79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5 F4, JP1 U2 DT2

Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.

New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9

New Castle App Con 125.0 110.3T

ILS 110.3 I–ILG Apch Brg 014° BC unusable **LOM:** 248/IL

VHF/DF available, contact tower.

New Castle (L) BVORTAC 114.0/EWT 067° 0.5 nmi to fld.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON

§DULLES INTL ***IFR*** 21W FSS: WASHINGTON (DL)

313 H115/(1L–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15 S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R

Remarks: RVR rnwy 1R avail apch and roll out.

Tower 120.1 122.7R **Gnd Con** 121.9

‡Clrnc Del 127.4

Radar Services: (BCN)

App Con 119.2 126.1

Dep Con 125.55

PAR^{1} Rnwy 1R Ceil 200 Vsby $\frac{1}{2}$ mi Min Alt 513

ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713 Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813

ILS 111.3 I–DLX Apch Brg 186° **LMM** 266/LX

109.3 I–DIA Apch Brg 006° **LOM** 346/DI

Remarks: ^{1}Radar monitoring of instrument apchs only at pilot's request.

§WASHINGTON NATIONAL ***IFR*** 3S FSS: WASHINGTON on Fld

15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15 S5 F5,JP1 U2 DT2 **VASI:** Rnwy 15 **RVV:** Rnwys 18, 15 **RVR:** Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18

Remarks: Very limited parking. Caution turbulance apch ends rnwys 21, 33 and 36.

Tower 119.1^{1} 122.5R 128.8^{5} **Gnd Con** 121.7

‡Clrnc Del 127.7

ATIS: 111.0

Radar Services: (BCN)

App Con 120.8^{2} 134.1^{3} 127.0 122.5R 118.3^{1} 109.9T

Dep Con 118.1^{1} 126.55^{2}

Tfc Info Ctc Ap Con on 119.3

PAR^{4} Rnwy 36 Ceil 200 Vsby $\frac{1}{2}$ mi Min Alt 215

ILS 109.9 I–DCA Apch Brg 003° BC unusable **LOM:** 332/DC

VHF/DF available, control tower.

Washington (L) VORTAC 111.0/DCA at fld.

Washington RBn H–SAB 332●/DC 001° 4.6 NM to fld.

Remarks: ^{1}West ^{2}East ^{3}Andrews Sector. Circling PAR avbl on 15 min notice durg VFR conditions. ^{4}Radar monitoring instrument apchs only at pilot's request. ^{5}Helicopter ctl. **VOT:** 108.2. LOM is H–SAB.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY FSS: MIAMI

CECIL (L) VORW 108.2/NCZ FSS: JACKSONVILLE

CRESTVIEW (H) BVORTAC 115.9/CEW FSS: CRESTVIEW
RBn HW 350/CEW

CROSS CITY (L) BVOR 112.0/CTY FSS: GAINESVILLE

§DAYTONA BEACH MUNI *IFR* 3SW FSS: ORLANDO (LC255–4767)
34 H57/6–24(3) (S–60, T–80, TT–) BL4,6,8A,9
S5 F5, JP1 U2
Remarks: Rgt tfc rnwy 6.
Tower 120.7 126.2 122.5R **Gnd Con** 121.9
App Con 123.9 122.5R 112.6T 109.7T
ILS 109.7 I–DAB Apch Brg 065° **LOM:** 263/DA
(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.

DESTIN RBn HW 201/DES FSS: CRESTVIEW

EGLIN (L) VOR 110.8/VPS FSS: CRESTVIEW

EGMONT KEY RBn HW 310/H

§FT. LAUDERDALE-HOLLYWOOD INTL *IFR* 3SW AOE
FSS: MIAMI (LC 524–0233)
10 H74/9–27(3) (S–115, T–200, TT–400) BL4 S5 F5, JP1 U2
Remarks: Rnwy 9–27 thresholds displaced 600′ both ends 1045′ AGL twr 7NM SSW.
Fort Lauderdale Tower 119.3 122.5R 111.4T
Gnd Con 121.7
Radar Services: (BCN)
Miami App Con 123.9 119.7
Miami Dep Con 123.9 119.7
Ft Lauderdale (L) BVOR 111.4/FLL on fld.
Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY FSS: FORT MYERS
RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD FSS: TAMPA

GAINESVILLE (H) BVORTAC 116.2/GNV FSS: GAINESVILLE

GREENVILLE (L) BVOR 109.0/GEF FSS: TALLAHASSEE

HOLLYWOOD
§NORTH PERRY 5W FSS: MIAMI (LC 524–0233)
9 H31/4–22(4) (Max–16) BL5 S5 F4 U2
Remarks: Two way rdo required.
Tower[1] 121.3 122.4R
Remarks: [1]Opers 1200–0200Z.

HOMESTEAD (L) VOR 108.2/HST FSS: MIAMI
RBn MHW 221/HST

JACKSONVILLE
§IMESON *IFR* 5N FSS: JACKSONVILLE on Fld
52 H79/5–23(3) (S–62, T–110, TT–200) BL4,6,12 S5 F5, JP4 U2
RVV: Rnwy 5
Remarks: Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. Rnwy 18–36 open for dalgt VFR operns. 1500′ apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410/ E, rnwy 12 displaced 335′ W. Jet arresting gear rnwy 5–23.
Jacksonville Tower: 118.3 126.2 122.5R 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2
Tfc Info: Ctc App Con on 119.0 25 mi out.
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452.
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I–JAX Apch Brg 045° BC unusable **LOM:** 221/JA

FLORIDA—*Continued*

Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.
Jacksonville RBn H–SAB 344●/JAX 270° 1.4NM to fld.
VHF/DF available, contact tower
Remarks: [1]Glide slope unusable below 150′. **VOT:** 111.0

§KEY WEST INTL *IFR* 2 E AOE FSS: KEY WEST on Fld
4 H48/9–27(1) (S–30, T–40, TT–) BL4 S3 F4
Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 10:00 PM to Key West FSS.
Tower[1] 119.5 122.5R **Gnd Con** 121.9
Navy Key West App Con 118.7 122.5R
VFR ADV Ctc Key West rdo 0300–1100Z
(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.
RBn SBH 332/EYW 066° 1.2NM to fld.
Remarks: [1]Oper 0600–2400 lcl time.

LA BELLE (L) BVOR 110.4/LBV FSS: FORT MYERS

§LAKE CITY MUNI 3 E FSS: GAINESVILLE
202 H68/10–28(5) (S–75, T–140, TT–250) *L S5 F4 U1
Tower[1] 126.2
Remarks: [1]Oper 1300–2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL FSS: TAMPA (LC 682–3258

MARATHON RBn HW 260/MTH FSS: KEY WEST

MARIANNA (L) BVOR 114.0/MAI FSS: DOTHAN

MELBOURNE
§JOHN F KENNEDY MEML *IFR* 2 NW FSS: MELBOURNE on Fld
32 H112/(9–27(3) (S–85, T–145, TT–270) BL4 S5 F4, JP5 U2
Remarks: 9603′ rnwy 9–27 available ngts, displaced threshold rnwy 27 1589′W
Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9
Radar Services:
Patrick App Con 118.4
Patrick Dep Con 118.4
Melbourne (L) BVOR 110.0/MLB on fld.
Melbourne RBn HW 257/MLB 087° 2.1NM to fld.
Remarks: [1]Oper 1145–0400Z daily.

MIAMI
§MIAMI INTL *IFR* 8 NW AOE FSS: MIAMI on Fld
9 H105/9L–27R (4) (S–200, T–200 TT–400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L
Remarks: Fee. Clsd non engine acft.
Tower 118.3 126.2 122.4R **Gnd Con** 121.8
‡Clrnc Del 127.5
ATIS: 115.9
Radar Services: (BCN)
App Con 118.1[1] 120.5[2] 122.4R
Dep Con 123.9 119.7
Tfc Info Ctc Twr 20 mi out or remain above 2500′.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509.
Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.
ILS 110.3 I–MFA Apch Brg 087° **LOM:**[4] 365/MF
109.5 I–MIA[3] Apch Brg 267° **LOM:** 248/MI
VHF/DF available, contact tower.
(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12
RBn H–SAB 365●/MF 087° 4.5NM to rnwy 9L.
Remarks: [1]090°–269° [2]270°–089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]Glide slope rnwy 27 unusable below 175′ MSL.
VOT: 112 0 [4]LOM is H–SAB.

§OPA LOCKA *IFR* 10 NW FSS: MIAMI
9 H80/9L–27R(5) (S–96 T–155 TT–290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L–27R. 1045′ TV twr 5 NM NNE. JP–1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.

FLORIDA—*Continued*

Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9

Radar Services: (BCN)

Miami App Con 120.5 118.1

Miami Dep Con 123.9 119.7

Remarks: [1]Oper 1100–0300Z.

§TAMIAMI 8 W FSS: MIAMI

10 H38/14 32 (3) BL4 S5 F4

Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.

Tower[3] 121.1 122.6R **Gnd Con** 121.7

Radar Services:

Miami Dep Con 123.9[1] 119.7[2]

Remarks: [1]270°–089° [2]090–269°. [3]Opers 1200–0400Z.

OCALA (L) BVORTAC 112.8/OCF FSS: GAINESVILLE

ORLANDO

§HERNDON ***IFR*** 3 E FSS: ORLANDO on Fld

113 H60/7–25(3) (S–90, T–160, TT–300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7

Remarks: NW–SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.

Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7

Clrnc Del 121.7

Radar Services:

Orlando App Con 119.4 124.8 122.5R 109.9T

Orlando Dep Con 121.1

Tfc Info Ctc App Con on 124.8 25 mi out.

ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613.
Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.

ILS 109.9 I–ORL Apch Brg 067° **LOM:** 221/OR

(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK FSS: WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN FSS: TALLAHASSEE

§PENSACOLA MUNI ***IFR*** 3 NE FSS: PENSACOLA on Fld

118 H50/16–34(2) (S–100, T–180, TT–320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16

Remarks: Overnight tie-down fee.

Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9

Radar Services: (BCN)

App Con 123.9[1] 134.1 122.7R 119.0[2]

Dep Con 119.0[2] 134.1 123.9[1]

Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.

ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN

RBn H–SAB 326●/PNS 343° 1.8NM to fld.

Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR FSS: MIAMI

ST AUGUSTINE

§FAIRCHILD-ST AUGUSTINE 3N FSS: JACKSONVILLE

10 H65/13–31(3) (S–30) BL4,6 S5 F5

Remarks: Rnwy 2–20 and 6–24 clsd to acft over 12,500 lbs when twr not in opern.

Tower[1] 126.2 123.1 122.5R

Remarks: [1]Oper 1230–2115Z Mon–Fri.

ST. PETERSBURG

WHITTED 2E FSS: ST. PETERSBURG (DL)

7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2

Tfc Info: See Tampa Intl

Remarks: Rgt tfc rnwys 6, 36.

Tower[1] 120.4 122.4R **Gnd Con** 121.8

Radar Services: (BCN)

Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T

Tampa Dep Con 126.5

Remarks[1] To be comsnd June 1. Opers 0600–2200.

§ST. PETERSBURG-CLEARWATER INTL ***IFR*** 8N
FSS: ST. PETERSBURG on fld. (LC 446–1168)

10 H80/17–35 (3) (S–95, T–155, TT–200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17

Remarks: Rnwy 4–22 clsd to night ops UFN.

Tower 118.3 122.7R **Gnd Con** 121.9

Radar Services (BCN)

Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T **Tampa Dep Con** 126.5

ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI

St Petersburg (L) BVORTAC 116.4/PIE at fld.

Remarks: [1]Glide slope unusable below 110′.

SANFORD NAS RBn SH 408/NRJ FSS: ORLANDO

§SARASOTA-BRADENTON ***IFR*** 3 N FSS: ST. PETERSBURG (DL)

24 H50/13–31(3) S–62, T–110, TT–190) BL4,6 S5 F5, JP1 U2

Remarks: Rnwy 9–27 and all perimeter txwys clsd to acft in excess 12,500 lbs.

Tower[1] 120.1 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 108.4T

Tampa Dep Con 126.5

Sarasota (L) BVOR 108.4/SRQ at fld.

Remarks: [1]Oper 0600–2200 lcl time.

SAUFLEY (L) BVOR 108.8/NUN FSS: PENSACOLA

RBn MH 293/NUN

§TALLAHASSEE MUNI ***IFR*** 4 SW FSS: TALLAHASSEE on Fld

81 H61/18–36(2) (S–80, T–150, TT–270) BL4,6,8A,9 S5 F4, JP4 U2

RVV: Rnwy 36

Tower 118.7 126.2 122.5R **Gnd Con** 121.9

Clrnc Del 121.9

App Con 118.1 122.5R 117.5T 110.3T

Dep Con 118.1

ILS[1] 110.3 I–TLH Apch Brg 358° **LOM:** 379/TL

(H) BVORTAC 117.5/TLH

RBn H–SAB 379●/TL 358° 4.1NM to fld.

VHF/DF ctc FSS.

Remarks: [1]Glide slope unusable below 160′ MSL. **VOT:** 111.0 LOM is HSAB.

§TAMPA INTL ***IFR*** 3 W AOE FSS: ST. PETERSBURG

27 H83/18L–36R(3) (S–90, T–150, TT–270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L

Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.

Tower 119.9 126.2 122.5R 110.3T **Gnd Con** 121.7

Radar Services (BCN)

App Con 119.5 125.3 122.5R 118.5 116.0T 116.4T 108.4T

Dep Con: 126.5

Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.

ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP

RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36

VHF/DF: ctc FSS

Remarks: **VOT:** 111.0

TAYLOR (L) BVORTAC 113.8/TAY FSS: VALDOSTA

TYNDALL (L) VOR 117.7/PAM FSS: TALLAHASSEE

RBn HW 227/AAN

VERO BEACH (H) BVORTAC 117.3/VRB FSS: VERO BEACH

WEST PALM BEACH

§PALM BEACH INTL ***IFR*** 3 W AOE FSS: MIAMI (LC 832–5697)

19 H80/9–27(2) (S–85, T–400, TT–) BL4.6,8A,9 $5 F5 JP4

RVV: Rnwy 9

Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.

Tower 119.1 126.2 122.7R **Gnd Con** 121.9

App Con 118.0 122.7R 115.5T 109.3T

ILS[1] 109.3 I–PBI Apch Brg 093° **LOM:** 356/PB

Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.

FLORIDA—*Continued*

Palm Beach RBn HW 356/PB 090° 1.9 NM to fld.
Remarks: [1]Glide slope unusable below 150'. **VOT:** 109.0 LOM is HW.

GEORGIA

ALBANY (L) BVOR 112.9/ABY FSS: ALBANY

ALMA (H) BVORTAC 115.1/AMG FSS: ALMA

ATHENS (L) BVORTAC 109.6/AHN FSS: ANDERSON

ATLANTA

§ATLANTA MUNI ***IFR*** 7SSW FSS: ATLANTA
1024 H100(9L-27R(4) (S-100, T-170, TT-340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.
Remarks: Aprxly 2100' of W end rnwy 9R-27L not visible from twr. TV towers 1042' (2049' MSL) 8.5 NM NE. 1076' (2049' MSL) 7.5 NM NE. 1100' (2049' MSL) 10 nmi NE. Commercial Fee only. [1]Avail for apch and roll out.
Tower 119.1 122.7R **Gnd Con** 121.9
‡Clnrc Del 121.6
ATIS: 111.8 111.0
Radar Services: (BCN)
App Con 127.7 (N of V18N) 118.1 (S of V18N) 109.9T 109.3T 110.5T
Term Con 119.3 (S of V18N) 119.8 (N of V18N)
Dep Con 125.7
Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.
PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.
ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424.
Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.
ILS 109.9 I-ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I-AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I-ALR Apch Brg 089° **LOM:** 254/AL
(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.
RBn H-SAB 266●/ATL 270° 4.7NM to rnwy 27R.
Remarks: [1]Glide slope rnwy 33 unusable below 1085' MSL. [2]Radar monitoring of instrument apchs only at pilot's request.
VOT: 111.0

§DEKALB-PEACHTREE ***IFR*** 8 NE FSS: ATLANTA
1002 H40/16-34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2
Remarks: Ctl twr unuable to see first 1000' rnwy 2. TV towers 1042 (2049' MSL) 7.5NM SSW; 1076' (2049 MSL) 8NM SSW; 1100' (2049' MSL) 5NM SSW. Two unlgtd 8' bldgs 480 NNE intsxn rnwy 16-34 and 9-27, 160' E of rnwy 16-34.
Peachtree Tower[1] 120.9 122.5R **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 **Atlanta Dep Con** 123.8
Remarks: [1]Oper 1200-0400Z.

§FULTON COUNTY ***IFR*** 6W FSS: ATLANTA on Fld
839 H52/8-26(2) (S50, T-77, TT-) BL4, 11 S5 F5
REIL: Rnwy 8.
Remarks: Towers 1042' (2049' MSL) 9 NM E. 1076' (2049' MSL) 8NM E. 110' (2049' MSL) 9.5 NM E.
Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 **Atlanta Dep Con** 123.8
VHF/DF ctc FSS.
(L) BVOR 108.2/FTY on fld.
RBn MH 245/FTY on fld
Remarks: [1]Oper 1200-0400Z.

AUGUSTA

§BUSH FIELD ***IFR*** 6S FSS: AUGUSTA on Fld
145 H80-17-35(2) (S-150, T-200, TT-360) BL4,6,8A,9 S5 F5, JP1, JP4 U2
Remarks: 1506' (1882' MSL) twr 7NM ENE and 1292' (1677' MSL) twr 7NM NE.

GEORGIA—*Continued*

Augusta Tower 118.7 126.2 122.5R 110.5T
Gnd Con 121.9
Augusta App Con 125.4 122.5R 113.9T 110.5T
ILS[1] 110.5 I-AGS Apch Brg 349° BC unusable **LOM:** 233/AG
Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.
Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 245' MSL.

BLAKELY RBn MHW 365/BLG FSS: DOTHAN

BRUNSWICK (L) BVOR 109.8/SSI FSS: BRUNSWICK

COLUMBUS

§MUSCOGEE COUNTY ***IFR*** 4NE FSS: ATLANTA
397 H50/5-23(2) (S-60, T-80, TT) BL4,6 S5 F5, JP5 U2
Remarks: Rnwy 12-30 closed to ngt lndgs.
Tower 120.1 122.5R **Gnd Con** 121.9
ILS[1] 110.3 I-CSG Apch Brng 053° BC unusable **LOM:** 355/CS
Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.
Remarks: [1]Glide slope unusable below 697'.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN FSS: MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA FSS: BRUNSWICK

HARRIS (L) BVOR 110.4/HRS

LA GRANGE (L) BVOR 109.4/LGC FSS: ANNISTON

LAWSON (L) VOR 111.4/LSF
RBn 335/AWS
Remarks: VOR inoperative UFN.

LIBERTY RBn MHW 263/HIN FSS: SAVANNAH

LOST MOUNTAIN RBn HW 314/LSM

§MACON MUNI ***IFR*** 9S FSS: MACON on Fld
354 H50/5-23(2) (S-30, T-50, TT-85) BL4,6,8A,9 S3 F5, JP1 U2 **RVV:** Rnwy 5
Tower 118.3 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T
Dep Con 124.8
ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.
ILS[1] 109.5 I-MCN Apch Brg 047° BC unusable **LOM:** 290/MC
(H) BVORTAC 114.2/MCN at fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 450' MSL.

McDONOUGH (L) BVORTAC 113.6/MDU FSS: ATLANTA

MOULTRIE (L) BVOR 108.8/MGR FSS: VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR FSS: ATLANTA

REX (L) VOR 111.8/REG FSS: ATLANTA

ROME (L) BVOR 115.4/RMG FSS: ATLANTA
RBn MHW 388/RMG

ROYSTON (L) BVOR 110.0/RYN FSS: ANDERSON

SAVANNAH

§TRAVIS FIELD ***IFR*** 7NW FSS: SAVANNAH on Fld
50 H90/9-27(3) (S40-T60-TT-110) BL4,6,8A,9 S5 F4, JP5 **RVV:** Rnwy 9
Remarks: Rnwy 27 threshold displaced 400'. Rnwy 5-23 clsd all acft in excess 12,500 lbs GWT. Jet barrier and arresting gear rnwy 9-27
Savannah Tower 119.1 126.2 122.5R 110.1T
Gnd Con 121.9
Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7

GEORGIA—*Continued*

ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: VOT: 111.0

TOCCOA (L) BVOR 109.8/TOC **FSS:** ANDERSON

VALDOSTA (L) BVOR 110.4/VLD **FSS:** VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA **FSS:** MACON

WAYCROSS (L) BVORTAC 110.2/AYS **FSS:** ALMA

IDAHO

§BOISE AIR TERMINAL *IFR* 3S **FSS:** BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9
S5 F5, JP1,4 U2 **RVV:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R. Jet barriers and arresting gear Rnwy 10R–28L plus jet barriers with donut supported cable aprxly 1000′ in from threshold lgts on rnwy 10R–28L.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI **FSS:** BURLEY
RBn SBH 272/BYI

COEUR D' ALENE RBn HW 347/COE **FSS:** SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS **FSS:** IDAHO FALLS

§IDAHO FALLS
FANNING FIELD *IFR* 2NW **FSS:** IDAHO FALLS on Fld
4739 H75/2–20(2) (S–30, T–90, TT–150) BL5,6 S5 F4, JP5
Remarks: Rnwy 20 threshold displaced 930′ SW. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 655′ S. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350●/IDA 199° 2.2NM to rnwy 20.
VHF/DF ctc FSS.
Remarks: [1]Oper 1300–0500Z.

LEWISTON (L) BVOR 108.2/LWS **FSS:** WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD **FSS:** MALAD CITY

McCALL (H) BVORTAC 116.2/MYL **FSS:** BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP **FSS:** MULLAN PASS

§POCATELLO MUNI *IFR* 7NW **FSS:** POCATELLO on Fld
4448 H82/3–21(3) (S30, T80, TT130) BL5,6,9,12 S5 F4 JP1
U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF **FSS:** BURLEY

ILLINOIS

ALTON RBn MHW 263/ALN **FSS:** ST. LOUIS

BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB **FSS:** VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI **FSS:** PEORIA

BRADFORD (H) BVORTAC 114.7/BDF **FSS:** PEORIA

CAHAKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

ILLINOIS—*Continued*

CAPITAL (H) BVORTAC 112.7/CAP **FSS:** VANDALIA

CARBONDALE RBn BMH 248/MDH **FSS:** CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL **FSS:** VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4SSW
FSS: CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4
U2 DT2
Remarks: Use rnwys—turf usable by permission.
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN **FSS:** LAFAYETTE
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY *IFR* 3NW **FSS:** JOLIET (DL)
758 H40/10–28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 DT2
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy 5–23 clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 0600–2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E **FSS:** JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1,500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear acft. (3) 25 knots or more to all acft. Fld clsd daily to all opers btn hrs 2400 and 0600 lcl time due, no safety or svcs facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs.
Meigs Tower[1] 121.3 127.4 122.5R **Gnd Con** 121.9
Chicago Dep Con: 119.5
VFR ADV Ctc twr on 127.4 at least 10 mi out.
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY *IFR* 9SW AOE **FSS:** JOLIET (DL)
619 H65/13R–31L(6) (S–130, T–200, TT–400) BL2,4,6,8A,9,11
S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Customs svc avbl 0800–1700 cst Mon–Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 126.2 123.7 122.7R 109.9T 109.5T
Gnd Con 121.7
Radar Services:
Chicago App Con 119.5 126.2 124.7 124.2 122.6R 118.4 113.9T 110.1T 109.7T
Chicago Dep Con[1] 124.2 119.2
Tfc Info Ctc Chicago App Con on 119.5.
PAR[2] Rnwy 13R Ceiling 300 Vsby ¾ mi Min alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I–MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I–MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H–SAB 350●/MDW
VHF/DF[1] contact Tower.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immeriate area of Midway. [2]PAR unusable from MM

ILLINOIS—*Continued*

to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Glide slope rnwy 13R unusable below 870′ MSL. Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. **VOT:** 111.0. LOM is Kedzie MHW.

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§CHICAGO-O'HARE INTL *IFR* 14NW FSS: JOLIET (DL)
667 H116/14R-32L(5) (S-120, T-200, TT-375) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **RVR:** 14R, 14L, 32L
RVV: Rnwys 4, 9, 27, 32R **REIL:** Rnwys 4, 22, 32R **VASI:** Rnwy 22
Remarks: Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts.
O'Hare Tower 118.1 126.2 122.6R 120.7 110.1T 109.7T
‡Clrnc Del 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4 125.0 124.2
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby ½ mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby ¾ mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I-ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I-OHA Apch Brg 138° **LOM:** 368/OH
110.5 I-IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I-RVG Apch Brg 318° **LOM:** 257/RV
111.1 I-IDN Apch Brg 318° **LOM** 385/ID
(L) VORTAC 113.9/ORD on fld.
VHF/DF ctc twr.
Remarks: [1]180°–359° [2]360°–179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE
Remarks: Comsng delayed UFN.

DECATUR MUNI *IFR* 4E FSS: VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 JP1 U-1
Remarks: REIL rnwy 18, 36
Tower: 118.9 122.5R **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700–2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN **FSS:** JOLIET

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

GLENVIEW RBn MH 269/NBU **FSS:** JOLIET

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY *IFR* 3S **FSS:** BURLINGTON (DL)
590 H55/9-27(3) (S-56, T-82, TT-140) BL4,6,8A,9 S5 F5, JP4 U2 DT2 **RVV:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 224T
ILS 110.3 I-MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE

PEORIA
§GREATER PEORIA *IFR* 4W **FSS:** JOLIET
659 H70/12-30(4) (S-65, T-90, TT-170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. Arresting gear rnwy 12–30. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 I-PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD *IFR* 9E **FSS:** QUINCY on Fld
769 H54/3-21(3) (S65, T-90, TT-170) BL4,6 F4 JP1 DT2
ILS[1] 1110.1 I-UIN Apch Brg 035° **LOM:** 293/UI
Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.
Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: [1]Glide slope unusable below 950′ MSL. LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS **FSS:** CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD *IFR* 4S **FSS:** ROCKFORD on Fld
735 H60/18-36(3) (S-75, T-100, TT-) BL4,6,8A,9 S5 F4, JP1 DT2 **RVV:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I-RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV **FSS:** ST. LOUIS

SAMSVILLE (L) BVOR 116.6/SAM **FSS:** EVANSVILLE

SPRINGFIELD
§CAPITAL *IFR* 3NW **FSS:** VANDALIA (DL)
593 H70/4-22(3) (S-85, T-120, TT-210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVV:** Rnwy 4 **REIL:** Rnwy 22.
Remarks: Jet barrier rnwy 4–22.
Tower 121.3 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 118.6 aprx 25NM out
Springfield App Con 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I-SPI Apch Brg 038° **LOM:** 379/SP
Springfield RBn MHW 379/SP
Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY **FSS:** ST. LOUIS

VANDALIA (L) BVOR 114.3/VLA **FSS:** VANDALIA

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID **FSS:** INDIANAPOLIS

BAKALAR RBn HW 410/BAK **FSS:** INDIANAPOLIS
RBn MHW 201/BXR

BLOOMINGTON (L) BVOR 110.2/BMG **FSS:** INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL **FSS:** INDIANAPOLIS
RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU **FSS:** INDIANAPOLIS

EVANSVILLE
§DRESS MEMORIAL ***IFR*** 3N **FSS:** TERRE HAUTE (DL)
389 H60/3–21(3) (S–70, T–90, TT–) BL4.6 S5 F5 TPI U2 DT2
Remarks: P-line apch rnwy 21. Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below. First 700′ rnwy 21 clsd dalgt operns and first 250′ clsd ngt operns UFN.
Evansville Tower 118.7 122.5R **Gnd Con** 121.9
Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T
VFR ADV: Ctc App Con on 119.4
ILS 109.9 I–EVV Apch Brg 215° **BC unusable LOM:** 219/EV
Evansville (H) VORTAC 113.3/EVV 12.4NM to fld.

FT. WAYNE
§BAER FIELD ***IFR*** 6SSW **FSS:** FORT WAYNE on Fld.
801 H80/4–22(3) (S–90, T–120, TT–) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 22
Remarks: P-line apch rnwy 31. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9. Jet barrier rnwy 4–22.
Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6
Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.
ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW
Fort Wayne (H) BVORTAC 117.8/FWA on fld.
Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31
Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH **FSS:** SOUTH BEND
RBn SBMH 215/GSH

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§INDIANAPOLIS MUNI (Weir Cook) ***IFR*** 7SW **FSS:** INDIANAPOLIS on Fld
797 H100/13–31(2) (S–100, T–150, TT–270) BL6,8A,9,10,11,15 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 **RVR:** Rnwy 4, 31
Remarks: Fee multi-eng commercial acft.
Tower 120.9 126.2 122.5R 121.3 116.3T 109.3T
Clrnc Del 125.7 **Gnd Con** 121.9
ATIS 110.5
Radar Services:
App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T 109.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 119.3, 118.5 or 118.1
PAR[3] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN
110.5 I–COA Apch Brg 313° **LOM:** 232/CO
(H) BVORTAC 116.3/IND 142° 6.1NM to fld.
RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4

INDIANA—*Continued*

VHF/DF ctc FSS.
Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI **FSS:** SOUTH BEND

KOKOMO (L) BVOR 109.8/OKK **FSS:** INDIANAPOLIS
RBn MHW 227/OKK

LAFAYETTE
§PURDUE UNIVERSITY ***IFR*** 1SW **FSS:** LAFAYETTE on fld
605 H54/10–28(2) (S35 T53 TT80) BL5 S3 F5 JP1
Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.
ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA
Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU **FSS:** TERRE HAUTE

MARION (T) BVOR 108.6/MZZ **FSS:** INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI **FSS:** FORT WAYNE

MUNCIE
§DELAWARE COUNTY (Johnson Fld) ***IFR*** 3N **FSS:** INDIANAPOLIS (DL)
937 H51/14–32(2) (S–70, T–90, TT–150) BL4 S5 F4 JP1 U2
Remarks: P-line in NW apch 3480′ off end runwy 14.
Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9
Muncie (L) BVOR 113.7/MIE
Remarks: [1]Oper 1200–0400Z.

NABB (L) BVOR 113.5/ABB **FSS:** LOUISVILLE

RICHMOND (L) BVOR 110.6/RID **FSS:** DAYTON
RBn MHW 385/RID

SCOTLAND (L) BVORTAC 111.2/SCJ **FSS:** TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB **FSS:** INDIANAPOLIS

SOUTH BEND
§ST. JOSEPH COUNTY ***IFR*** 3NW **FSS:** SOUTH BEND on Fld
785 H60/9–27(4) (S–110, T–145, TT–) BL4,6,8A,9 S4 F5, JP1 U2 **RVV:** Rnwy 27
Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.
South Bend Tower 118.9 122.5R 115.4T 109.3T
Gnd Con 121.9
South Bend App Con 121.0 122.5R 115.4T 109.3T
VFR ADV: Ctc App Con on 121.0
ILS 109.3 I–SBN Apch Brg 269° **LOM:** 341/SB
South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.
VHF/DF ctc FSS.

TERRE HAUTE
§HULMAN FIELD ***IFR*** 5E **FSS:** TERRE HAUTE on Fld
585 H90/5–23(3) (S–100, T–150, TT–270) BL4,6 S3 F4, JP1 U2
Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18–36 clsd to acft over 25,000 lbs. Jet barrier rnwy 5–23.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 126.2 122.5R 118.3
VFR ADV Ctc App Con on 123.8
ILS 109.7 I–HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT **FSS:** LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK **FSS:** FT. WAYNE

IOWA

AMES RBn MHW 275/AMW **FSS:** DES MOINES
Remarks: Operd by city.

IOWA—*Continued*

ATLANTIC RBn MHW 365/AIO **FSS:** OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL **FSS:** BURLINGTON

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§CEDAR RAPIDS MUNI *IFR* 5SSW **FSS:** CEDAR RAPIDS on Fld
863 H70/8-26(2) (S-100, T-135, TT-) BL4,6,8A,9,11 S-5
F5, TP-1 JP1 U2 **REIL** Rnwy 26
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 119.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I-CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBN MHW 375/CCY **FSS:** MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN **FSS:** BURLINGTON

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§DES MOINES MUNI *IFR* 3SW **FSS:** DES MOINES on Fld
957 H90/12-30(3) (S-100, T-180, TT-350) BL4,6,8A,9,11 S-5
F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17-35 closed to acft over 25,000 lbs.
DT Memorial Day—Labor Day.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi
Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I-DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ **FSS:** CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD **FSS:** MASON CITY

IOWA CITY (L) BVORTAC 111.1/IOW **FSS:** CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW **FSS:** DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK **FSS:** BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN **FSS:** DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW **FSS:** MASON CITY

NEOLA (L) BVORTAC 117.1/EOL **FSS:** OMAHA

NEWTON (L) BVOR 112.5/TNU **FSS:** DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM **FSS:** OTTUMWA

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

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§SIOUX CITY MUNI *IFR* 6S **FSS:** SIOUX CITY CS/T
1097 H90/13-31(3) (Max 2.25) BL4,6,8A,9,11 S-5
F5, JP-1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 13
Remarks: First 1500′ rnwy 22 not visible to tower. Arresting gear rnwy 13-31.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I-SUX Apch Brg 307° **LOM:** 414/SU
VHF/DF ctc tower
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
Remarks: [1]LOM is MHW.

SPENCER RBn MHW 257/SPW

IOWA—*Continued*

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

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§WATERLOO MUNI *IFR* 4NW **FSS:** WATERLOO on Fld
870 H54/12-30(3) (S-100, T-180, TT-305) BL4,8A,9 S-5
F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 125.8
App Con 125.8 122.5R 109.9T 108.2T
ILS[1] 109.9 I-ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN **FSS:** LACROSSE

KANSAS

ANTHONY (L) BVOR 112.9/ANY **FSS:** WICHITA

CHANUTE (L) BVOR 109.2/CNU **FSS:** CHANUTE

DODGE CITY (L)BVOR 108.2/DDC **FSS:** DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP **FSS:** EMPORIA

FORT RILEY (L) VORW 109.4/FRI **FSS:** SALINA
RBn MHW 317/FRI

GARDEN CITY (H) BVORTAC 113.3/GCK **FSS:** GARDEN CITY
RBn H-SAB 257 /GCK

GOODLAND (L) BVORTAC 115.1/GLD **FSS:** GOODLAND

HILL CITY (H) BVORTAC 113.7/HLC **FSS:** HILL CITY

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§HUTCHINSON MUNI *IFR* 3E **FSS:** WICHITA (DL)
1542 H70/13-31(3) (S-50, T-65, TT-103) BL4,6,8A,9 S5 F4
JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Threshold rnwy 31 displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 125.5
App Con 125.5 122.5R 118.5 116.8T
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP **FSS:** CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE **FSS:** KANSAS CITY
746 H61/17-35(4) (S-30, T-50, TT-85) BL6 S5 F-5, JP-1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys.
Tower[3] 119.1 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Kansas City App Con 126.2 122.′7R 121.1[1] 118.9[2]
112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Opers. 0600-2200 daily

LIBERAL (H) BVOR 112.3/LBL **FSS:** GARDEN CITY
Remarks: To be (H)BVORTAC June 17.

MANHATTAN (T) BVOR 110.2/MHK **FSS:** SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO **FSS:** SALINA

OSWEGO (L) BVOR 117.6/OSW **FSS:** JOPLIN

OTTAWA (L) VORW 111.6/TOE **FSS:** TOPEKA

PRATT RBn HW 356/PTT **FSS:** DODGE CITY

KANSAS—*Continued*

RUSSELL (L) BVOR 114.5/RSL **FSS:** RUSSELL

SALINA (H) BVORTAC 115.3/SLN **FSS:** SALINA

TOPEKA
§PHILIP BILLARD MUNI *IFR* 3NE **FSS:** TOPEKA on Fld
880 H51/13-31(3) (S-70, T-100, TT-175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
ILS[1] 109.5 I-TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

WICHITA
§BEECH *IFR* 5E **FSS:** WICHITA (DL)
1387 H50/18-36(3) F4
Remarks: Both apchs N-S rnwy restricted by polelines.
Tower[1] 119.9 126.2 122.5R 3023.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Opers 1400-2300Z Mon-Fri. Clsd Sat, Sun and holidays.

§WICHITA MUNI *IFR* 5SW **FSS:** WICHITA on Fld
1332 H73/1-19(2) (S-100, T-188, TT-350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr [illegible] NNW.
Tower 119.5 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
Wichita App Con 120.1 120.6 134.1 125.7 1227R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I-ICT Apch Brg 011° **LOM:** 219/IC
(H) BVORTAC 113.8/ICT 162° 4.3NM to rnwy 14.
RBn SABH 332/ICT

KENTUCKY

ASHLAND RBn MHW 385/AKY **FSS:** HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG **FSS:** BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP **FSS:** BOWLING GREEN
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC **FSS:** LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT **FSS:** BOWLING GREEN

FALMOUTH (L) BVOR 109.0/FLM **FSS:** CINCINNATI

FORT KNOX (T) VOR 109.6/FTK **FSS:** LOUISVILLE
RBn MH 396/FTK

LEXINGTON
§BLUE GRASS FIELD *IFR* 5W **FSS:** LEXINGTON on Fld
978 H55/4-22(3) (S-95, T-128, TT-284) BL4,6,8A,9 S5 F5, JP-5 U2 **RVV:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.

KENTUCKY—*Continued*

Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I-LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3NM to fld
Lexington RBn MHW 242/LE 042° 3.5NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ **FSS:** LONDON

LOUISVILLE
§BOWMAN FIELD *IFR* 5SE **FSS:** LOUISVILLE on Fld
549 H43/6-24(3) (Max 30) BL4,11 S-5 F-4, JP-4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

§STANDIFORD FIELD *IFR* 4S **FSS:** LOUISVILLE (DL)
497 H78/1-19(3) (S-60, T-90, TT-200) BL4,6,8A,9,14,15 S-4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1
Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7
Radar Services:
App Con 124.5 126.2 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I-SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I-LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF ctc tower
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS **FSS:** LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB **FSS:** HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO **FSS:** LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB **FSS:** EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK **FSS:** PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK **FSS:** HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG **FSS:** LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX **FSS:** ALEXANDRIA
RBn HW 251/AEX

BARKSDALE (L) VOR 114.8/BAD **FSS:** SHREVEPORT
RBn HW 379/BAD

BATON ROUGE
§RYAN *IFR* 4 N **FSS:** BATON ROUGE on Fld
70 H60/4-22 (3) (S-137, T-175, TT-340) BL4, 6, 11 S5 F4, JP5 U2 **REIL:** Rnwy 13
Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 119.7 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW
Tower 118.3 122.5R **Gnd Con** 121.9
Baton Rouge App Con 119.7 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT
Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (T) BVOR 108.8/ESF **FSS:** ALEXANDRIA

GRAND ISLE (H) BVORTAC 113.5/GNI **FSS:** NEW ORLEANS
RBn HH 236●/GNI

LOUISIANA—*Continued*

HARVEY (L) BVORTAC 112.4/HRV FSS: NEW ORLEANS

§LAFAYETTE MUNI *IFR* 2 SE FSS: LAFAYETTE on Fld
42 H51/1-19(2) (S-9, T-20, TT-30) BL4, 8A, 9, 11 S5
F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1
Tower 118.5 122.5R **Gnd Con** 121.7
Clrnc Del 121.7
App Con 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193° **LOM:** 257/LF
(L)BVORTAC 110.8/LFT 344V 3.0 NM to fld.
RBn BMH 375/LFT at fld.

§LAKE CHARLES MUNI *IFR* 3 S FSS: LAKE CHARLES on Fld
16 H65/15-33(1) (S-137, T-165, TT-350) BL4,5,6,8A,9 S5
F4, JP4 **RVV:** Rnwy 15
Remarks: Rgt tfc rnwys 15 and 22.
Tower 120.7 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 113.4T 109.1T
ILS 109.1 I-LCH Apch Brg 148° **LOM:** 353/LC
(H)BVORTAC 113.4/LCH 252° 6.3 NM to fld.
RBn BH 242/LCH

§MONROE *IFR* 3 E FSS: MONROE on Fld
79 H50/4-22(3) (S-50, T-75, TT-135) BL4,6,8,9 S5
F4, JP4 U2
Remarks: Apch to runwys 17-35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 119.1 122.5R
ILS[1] 109.5 I-MLU Apch Brg 039° **LOM:** 219/ML
(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.
Remarks: [1]Glide slope unusable below 320′ MSL.

NEW ORLEANS

§NEW ORLEANS-LAKEFRONT *IFR* 4 NE **FSS:** NEW ORLEANS on Fld
10 H57/17-35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2
Remarks: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 1226′ N. 4504′ avbl lndg rnwy 35. 5202′ avbl lndg rnwy 17. No ngt operns rnwy 8-26. 1046′ (1049′ MSL) TV twr 8 NM S. 1049′ MSL) TV twr 7 NM SE.
Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7
Radar Services:
New Orleans App Con 125.5 122.7R 118.1
New Orleans Dep Con 120.4

§NEW ORLEANS INTL-MOISANT FLD *IFR* 10 W
FSS: NEW ORLEANS (DL)
3 H92/10-28(3) (S-180, T-225, TT-425) BL4,6,8A,9,11,14,15
S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10
Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300-1700Z Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28 threshold displaced 700′ SW. Usable length rnwy 28—8525′; rnwy 10-9225′. 700′ E of rnwy 28 threshold usable tkof only with approval ctl twr.
Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9
Radar Services:
New Orleans App Con [1]125.5 122.7R 118.1 109.9T
New Orleans Dep Con 120.6
Tfc Info Ctc App Con on 125.5, for other arpts in or transversing the area ctc App Con on 118.1
ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.
Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.
Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.
ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS
New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.
New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 10.
VHF/DF available, contact tower.
Remarks: [1]Acft transitioning New Orleans NAS MCC use New Orleans ARTCC freq 126.0 during above 5000′; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

SHREVEPORT

§GREATER SHREVEPORT *IFR* 4 SW **FSS:** SHREVEPORT on Fld
257 H73/13-31(2) (S-83, T-120, TT-201) BL4, 6, 8A, 9, F5
RVV: Rnwy 13
Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
Tfc Info Ctc App Con on 118.5
ILS 110.3 I-SHV Apch Brg 136°

§SHREVEPORT DOWNTOWN *IFR* 2 N **FSS:** SHREVEPORT (DL)
179 H45/14-32(3) (S30) BL4 S5 F4
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
(T)VOR 108.6/DTN at fld.
Shreveport (H) BVORTAC 117.4/SHV 159° 13.9 NM to fld.
Shreveport RBn[1] **SBH** 230/SHV 153° 11.6 NM to rnwy 14.

TIBBY (L) BVORTAC 112.0/TBD **FSS:** NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA **FSS:** LAFAYETTE

MAINE

AUGUSTA STATE (L)BVOR 111.4/AUG **FSS:** AUGUSTA
RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR **FSS:** OLD TOWN
Rng SBRAZ 239/BW

BAR HARBOR RBn MHW 320/BHB **FSS:** OLD TOWN

BRUNSWICK (L)VOR 116.2/NHZ **FSS:** AUGUSTA
Rng MRLZ 368/NZ

HOULTON (L)BVOR 108.2/HUL **FSS:** HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE **FSS:** PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT **FSS:** MILLINOCKET
RBn H-SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU
Remarks: Owned and operd by Airport Commission.

§PORTLAND MUNI *IFR* 2W **FSS:** PORTLAND on Fld
66 H50/11-29(2) (S-94, T-116, TT-) BL 5, 6, 8A, 9, 10 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 29
Remarks: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27′ lctd at the end of rnwy and 800′ rgt cntrline. Lesser penetrations lctd 250′-430′ from end of rnwy and 720′-890′ left cntrline. 1890′-2180′ from end of rnwy and 900′-1090′ left cntrline.
Tower 120.9 122.5R 109.9T **Gnd Con** 121.9
App Con 120.9
ILS 109.9 I-PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI **FSS:** HOULTON

PRINCETON (L)BVOR 114.3/PNN **FSS:** HOULTON

ROCKLAND RBn MHW 353/RKD **FSS:** AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR **FSS:** HOULTON

WATERVILLE RBn MHW 375/AVI **FSS:** AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG **FSS:** WASHINGTON

ANDREWS (L)VORTAC 113.1/ADW

MARYLAND—*Continued*

BALTIMORE

§FRIENDSHIP INTL ***IFR*** 8 S **FSS:** WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–240, T–500, TT–700) BL6, 8A, 9, 10, 11
S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10
REIL rnwy 4, 22

Remarks: For Customs use gates A–14 and A–3. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turboprop due noise complaints.

Tower 118.7 122.7R 109.7T **Gnd Con** 121.9

Radar Services:
Baltimore App Con 119.7 125.9[2]
Baltimore Dep Con 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.

ILS[3] 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA
(L) BVORTAC 113.8/BAL on fld.

VHF/DF ctc tower

Remarks: [1]101°–281° [2]282°–100° [3]Glide slope unusable from 400′ inside MM to touchdown. **VOT:** 108.2.

CUMBERLAND RBn MHW 317/CBE **FSS:** MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK **FSS:** MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI **FSS:** WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV **FSS:** MORGANTOWN

HAGERSTOWN (L)BVOR 109.8/HGR **FSS:** MARTINSBURG

NOTTINGHAM (L)BVORTAC 116.0/OTT **FSS:** WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT **FSS:** SALISBURY

POOLESVILLE RBn MHW 280/PLV **FSS:** WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY **FSS:** SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL **FSS:** SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI **FSS:** WASHINGTON

MASSACHUSETTS

BEDFORD

§LAURENCE G HANSCOM FLD ***IFR*** 1 S **FSS:** BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11
S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29
REIL: Rnwys 23, 29 **RVV:** Rnwy 11

Remarks: 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. Jet barriers and arresting gear rnwy 11–29. FEE for commercial acft over 5000′ lbs.

Tower 118.5 122.5R **Gnd Con** 121.7

Radar Services:
Boston App Con 124.4
PAR Rnwy 11 Ceil 300 Vsby ¾ mi Min Alt 433

ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE

Bedford (L)VOR 116.0/BED on fld.

Bedford RBn HW 512/BE 112° 4.0 NM to fld.

VHF/DF contact tower.

Remarks: [1]GCA oper 1400–0400Z Mon–Sat. LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF **FSS:** BOSTON

BOSTON

§LOGAN INTL ***IFR*** 1 E **FSS:** BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A[1], 9[2], 10
S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L
RVV: Rnwy 22L

MASSACHUSETTS—*Continued*

Remarks: FEE. Lndg threshold rnwy 4R displaced 2502′ to NE, 10,023′ avbl except lndg length toward NE restricted to 7521′ during IFR conditions and hrs of darkness. Rnwy 4L-22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. [1]Non-standard cntrline apch lgt sys. [2]Sequence flashers extend only 1200′.

Boston Tower 118.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7

Radar Services: (BCN)
Boston App Con [2]120.6 [1]126.5 126.2 124.4 122.5R 110.3T 382T
Boston Dep Con 119.1 124.4
PAR[4] Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.

ILS 110.3 I–BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I–LIP[3] Apch Brg 330° BC unusable **LOM:** 346/LI

Boston (H)VORTAC 112.7/BOS on fld.
Boston RBn H–SAB 382●/BOS 234° 1.0 NM to fld.
VHF/DF contact tower.

Remarks: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219′ MSL. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR **FSS:** WINDSOR LOCKS

DEVENS RBn MHW 352/AVE **FSS:** BOSTON

FALL RIVER RBn MHW 395/FLR **FSS:** NANTUCKET

FITCHBURG RBn MHW 206/FIT **FSS:** BOSTON

GARDNER (L)BVORTAC 110.6/GDM **FSS:** WORCESTER

HYANNIS

§BARNSTABLE MUNI ***IFR*** 1 N **FSS:** NANTUCKET (DL)
52 H55/6–24(2) (S–63, T–110, TT–) BL5, 6, 8A, 9, 11
S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6

Remarks: Poles SE, SW. Rnwy 11–29 open for dalgt lndgs and tkoffs on pilot req only, and W wind exceeds 14 knots.

Hyannis Tower 119.5 122.5R **Gnd Con** 121.9

Radar Services: (BCN)
Otis App Con 127.7 134.1 116.8T
Otis Dep Con 127.7

ILS[1] 110.5 I–HYA Apch Brg 245° BC unusable **LOM:** 342/HY
Hyannis (L)BVOR 108.6/HYA 241° 3.2 NM to rnwy 24.

Remarks: [1]Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM **FSS:** BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY **FSS:** NANTUCKET

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§NANTUCKET MEMORIAL ***IFR*** 3 SE **FSS:** NANTUCKET on Fld
47 H50/6–24(2) (S–31, T–55, TT–) BL5, 6, 8A, 9 S3
F4 DT2 **RVV:** Rnwy 24

Tower [1]118.3 122.5R 109.1T **Gnd Con** 121.9

Radar Services: (BCN)
Otis App Con 118.2 134.1 116.8T
Otis Dep Con 118.2

ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC
Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.
VHF/DF: ctc FSS.

Remarks: [1]Oper 1200–0400Z advisory svc other times.

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§NEW BEDFORD MUNI ***IFR*** 2 NW **FSS:** NANTUCKET (DL)
79 H50/5–23(2) (S–63, T–110, TT) BL5,6,8, S5 F4 U2 DT2

Remarks: ILS apch zone for rnwy has unlgtd trees protruding above the 7 : 1 slope.

Tower 121.3 122.5R 109.7T **Gnd Con** 121.9

MASSACHUSETTS—*Continued*

Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I-EWB Apch Brg 053° **LOM**: 274/EW

NORWOOD RBn MHW 212/OWD FSS: BOSTON

PITTSFIELD RBn MHW 343/PSF FSS: ALBANY

PROVINCETOWN MHW 230/PVC FSS: NANTUCKET
Operd Mass Aero Comm

WESTFIELD
§**BARNES MUNI** ***IFR*** 3 N FSS: WINDSOR LOCKS (LC 739-7132)
270 H90/2-20(3) (S-63, T-110, TT-195) BL5, 6 S3 F4, JP4 DT2
Remarks: Jet barrier rnwy 2-20.
Westfield Tower[1] 121.3 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 124.1 134.1 109.2T 114.0T
Westover Dep Con: 124.1 134.1
Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 1200-0400Z.

WHITMAN (L)BVORTAC 109.0/HTM FSS: BOSTON

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§**WORCESTER MUNI** ***IFR*** 3 W FSS: WORCESTER on Fld
1009 H70 (11-29(3) (S-137, T-180, TT-297) BL6, 7, 12 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: Rnwy 29 threshold displaced 150'.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I-ORH Apch Brg 332° BC unusable **LOM:** 282/OR
Remarks: [1]ILS rnwy 33 glide slope unusable below 1209' MSL acct roughness 750' inside MM to lndg threshold. Auto and manual apchs below the altitude not authorized.

MICHIGAN

ALPENA
§**PHELPS COLLINS** ***IFR*** 6 W FSS: PELLSTON (DL)
689 H90(18-36 (3) (S95-T125-TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: Rnwy 18 9000' avbl lndg, 8000' avbl tkoff. Rnwy 36 8000' avbl lndg and tkof. Jet barrier 1050' from apch end rnwy 18. GCA (ASR-PAR) VFR trng status 1400-2100Z Mon-Fri. Pilots encouraged to participate. Ctc twr for practce radar apchs during VFR condtions. GCA civil freqs 134.10 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5R
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN

BATTLE CREEK
§**W K KELLOGG REGIONAL AIRFIELD** ***IFR*** 3 W FSS: JACKSON (DL)
941 H70/4-22(4) (S-40, T-65, TT-115) BL4,6,8A,9 S5 F5 TP-1
Remarks: Rnwys 9-27, 18-36 clsd dur winter mos. E ramp S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR Adv Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I-BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141' MSL. LOM is MHW.

BELLAIRE RBn HW 251/ATM FSS: TRAVERSE CITY

BENTON HARBOR RBn MHW 400/BEH FSS: SOUTH BEND
Remarks: Privately owned and operated. Public instr flt rule apch procedure predicated on facil.

MICHIGAN—*Continued*

BOYNE FALLS RBn MHW 263/BFA **FSS:** PELLSTON
Remarks: VFR use only.

CADILLAC RBn MHW 269/CAD **FSS:** TRAVERSE CITY

CARLETON (L)BVORTAC 115.7/CRL **FSS:** DETROIT

CHARLEVOIX RBn MHW 222/CVX **FSS:** PELLSTON

COLDWATER RBn MHW 224/CWM **FSS:** JACKSON

DETROIT
§**DETROIT CITY** ***IFR*** 5 NE AOE **FSS:** DETROIT (DL)
626 H51/15R-33L(3) (S250 T-350 TT) BL4, 11 S5 F4, JP1 U2 **REIL:** Rnwy 15
Remarks: 1063' (1749' MSL) 1057' (1738' MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0
ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226
ILS 111.3 I-DET Apch Brg 146° **LOM** 338/DE
Remarks: VOT: 112.0. VOT freq to be 109.8 Jun 15.

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§**DETROIT METROPOLITAN WAYNE** ***IFR*** 13 SW AOE
FSS: DETROIT on Fld
639 H105/3L-21R (4) (S-200, T-200, TT-400) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R
REIL: Rnwy 3R
Remarks: Rnwy 15 threshold displaced 650'. Fee.
Detroit Metropoliton Tower 121.1 126.2 122.7R 109.3T 110.7T
‡**Clrnc Del** 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[1] 125.15[2] 123.7[3]
Metro Dep Con 118.4[1] 123.7[3]
Tfc Info Ctc 123.7, 1124.9 App Con.
ILS 109.3 I-DTW Apch Brg 032° **LOM:** 388/DT
110.7 I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H-SAB 388●/DT 121°
Remarks: LOM is SAB. [1]001-180, [2]181-360. **VOT:** 109.0.

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§**WILLOW RUN** ***IFR*** 19 SW **FSS:** DETROIT (DL)
716 H75/5-23(6) (S-60, T-90, TT-200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500' rnwy 9L not visible from twr. 320' overrun area SW end rnwy 5R-23L usable only tkoff rnwy 5R lndg rnwy 23L.
Tower 121.3 122.6R 109.5T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro App Con 118.4 123.7
Tfc Info Ctc Metro App Con on 124.9 or 123.7
PAR[1] Rnwy 5R Ceil 200 Vsby 1/2 mi Min Alt 916.
Rnwy 5L Ceil 400 Vsby 1 mi Min Alt 1116.
ASR Rnwy 9L Ceil 600 Vsby 1 mi Min Alt 1316.
Rnwys 5L, 5R, 14, 36 Ceil 500 Vsby 1 mi Min Alt 1216.
Rnwys 18, 23L, 23R, 27L, 27R, 32 Ceil 400 Vsby 1 mi Min Alt 1116.
ILS 109.5 I-YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF contact tower.
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

ESCANABA (L) BVOR 110 8/ESC **FSS:** MARQUETTE (DL)

FLINT
§**BISHOP** ***IFR*** 3 SW **FSS:** LANSING (DL)
781 H56/9-27 (S-40, T-60, TT-110) BL4,5,6,8A,9 S5 F4 U2 **RVV:** Rnwy 9.

MICHIGAN—*Continued*

Remarks: Rnwy 18 threshold displaced 635′.
Flint Tower 119.5 126.3 122.5R 111.6T 109.9T
Gnd Con 121.9
VFR Adv Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

GAYLORD (T)VOR 109.2/GLR **FSS:** PELLSTON
Remarks: VFR in use only.

GRAND RAPIDS
§KENT COUNTY *IFR* 6 SE **FSS:** SAGINAW
793 H66/8–26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1 U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS 109.7 I–GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: Glide slope unusable below 970′ MSL.

GRAND MARAIS RBn HW 341/GMI **FSS:** MARQUETTE

GROSSE ILE RBn HW 414/NFB **FSS:** DETROIT

HOUGHTON (L)BVOR 112.8/CMX **FSS:** HOUGHTON
RBn H–SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT **FSS:** MARQUETTE
Remarks: Comsng delayed UFN.

IRONWOOD (L)BVOR 108.8/IWD **FSS:** MARQUETTE

JACKSON
§REYNOLDS MUNI *IFR* 2W **FSS:** JACKSON on Fld
1000 H53/5–23(2) (S–60, T–80, TT–) BL5,11 S5 F4 U2
REIL: Rnwy 23 (1200–0400Z)
Remarks: Rnwy 5 threshold displaced 559′. Rnwy 31 threshold displaced 475′.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clrnc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
Jackson RBn MHW 281/JXN
Remarks: Twr oper 1200–0400Z. TACAN comsng delayed.

§KALAMAZOO MUNI *IFR* 1SE **FSS:** SOUTH BEND (DL)
874 H53/17–35(3) (S–30, T-50, TT85[1]) BL4,6,8A,9 S5 F4 JP5
Remarks: [1](S–40, T–65, TT–110) avail rnwys 5–23 & 9–27. 42′ lgt obstn lctd aprxly 1100′ S and 75′ W apch end rnwy 35 til aprxly August 1966.
Tower[1] 118.3 122.7R 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[2] 110.9 1–AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200–0400Z. [2]Glide slope unusable below 1062′.

KEELER (L) BVOR 115.1/ELX **FSS:** SOUTH BEND

KINCHELOE (L) VOR 108.6/INR
RBn MHW 410/IN **FSS:** SAULTE STE. MARIE

LANSING
§CAPITAL CITY *IFR* 3NW **FSS:** LANSING on Fld
859 H65/9–27(2) (S–30, T–40, TT) BL5,6,8A,11 S5 F4, JP1 **RVV:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037′ (1889′ MSL) twr 8 NM ESE and 1023′ (1923′ MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.
ILS 110.1 I–LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL **FSS:** TRAVERSE CITY

MARQUETTE (L) BVOR 109.0/MQT **FSS:** MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM **FSS:** GREEN BAY

MT. PLEASANT (L) BVOR 109.8/MOP **FSS:** SAGINAW

§MUSKEGON CO *IFR* 4S **FSS:** MUSKEGON on Fld
628 H56/14–32(3) (S–40, T–65, TT–110) BL6,8A,9 S5 F4 U2
RVR: Rnwy 32
Remarks: Rnwy 36 threshold displaced 300′. Rnwy 14 threshold displaced 300′.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 1–MKG Apch Brg 317° BC unusable **LOM:** 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828′ MSL.

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

PELLSTON (L) BVOR 111.8/PLN **FSS:** PELLSTON
RBn (H) 332/PLN

§PONTIAC MUNI *IFR* 5W **FSS:** DETROIT (DL)
974 H53/9–27(3) (S–40, T–65, TT–110) BL6 S5 F4 U2
Tower [1]120.5 122.5R 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK
Remarks: [1]Oper 1200–0400Z.

PULLMAN (H) BVORTAC 112.1/PMM **FSS:** SOUTH BEND

REED CITY RBn MHW 275/RCT **FSS:** MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW **FSS:** SAGINAW on fld
667 H56/–5–23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF avail ctc FSS.
Remarks: Opers 1200–0400Z.

SALEM (L) BVORTAC 114.3/SVM **FSS:** DETROIT

§SAULT STE MARIE MUNI *IFR* 1SW AOE
FSS: SAULT STE MARIE on Fld
722 H50/14–32(1) BL5, 11 S3 F4
REIL: Rnwy 14.
VFR ADV: Ctc Kincheloe for APP CON/DEP CON on 119.0.
(H) BVORTAC 112.2/SSM 337° 4.2 NM to fld.
RBn H–SAB 400●/SSM 313° 2NM to fld.

SAWYER (H) VOR 117.5/SAW **FSS:** MARQUETTE
RBn HW 359/SAW

SELFRIDGE (L) VOR 113.4/MTC **FSS:** DETROIT

THREE RIVERS RBn MHW 407/HAI **FSS:** JACKSON

TRAVERSE CITY (L) BVOR 112.4/TVC **FSS:** TRAVERSE CITY
RBn H–SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC **FSS:** MUSKEGON

WHITEFISH (L) BVOR 116.6/FSP **FSS:** SAULT STE MARIE

MINNESOTA

ALEXANDRIA (L) BVOR) 112.8/AXN **FSS:** ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM **FSS:** ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE **FSS:** HIBBING

BEMIDJI (L) BVOR 108.6/BJI **FSS:** HIBBING

BRAINERD (L) BVOR 109.2/BRD **FSS:** ALEXANDRIA

MINNESOTA—*Continued*

DARWIN (L) BVOR 109.0/DWN **FSS:** MINNEAPOLIS

§DULUTH INTL ***IFR*** 5NW (AOE) **FSS:** HIBBING
1429 H101/9–27(3) (S–80, T–112.5, TT–205) BL4,6,8A,9,10 F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9–27
Remarks: Jet barrier 2650′ from apch end rnwy 9 and 600′ from apch end rnwy 27. 1000′ overruns rnwy 9–27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I–DLH Apch Brg 087° **LOM:** 379/DLH
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H–SAB 379●/DLH 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H–SAB. [1]Glide slopes unusuable beyond 12NM.

EVELETH (T) BVOR 108.2/EVM **FSS:** HIBBING

FERGUS FALLS (T) BVOR 110.4/FFM **FSS:** ALEXANDRIA
Remarks: State owned. VFR use only.

FAIRMONT (T)BVOR 110.2/FRM **FSS:** MASON CITY

FARMINGTON (L) BVOR 115.7/FGT **FSS:** MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ **FSS:** HIBBING

HIBBING (L) BVOR 110.8/HIB **FSS:** HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL **FSS:** HIBBING

MANKATO (L) BVOR 110.8/MKT **FSS:** MINNEAPOLIS

MINNEAPOLIS

§CRYSTAL ***IFR*** 8NW **FSS:** MINNEAPOLIS (DL)
869 H32/13L–31(2) (S–21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Threshold rnwy 5L–23R displaced 400′ landing distance available 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600–2200Z.

§FLYING CLOUD ***IFR*** 11SW **FSS:** MINNEAPOLIS (DL)
909 H36/9L–27R(3) (S–14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
(L) VOR 111.8/FCM at fld.
Remarks: [1]Oper 0600–2200Z.

§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) ***IFR*** 6S **FSS:** MINNEAPOLIS on Fld
840 H100/11R–29L(3) (S–110, T–150, TT–270) BL6,8A,9,10,11 S5, JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4 **RVV:** Rnwy 29L
REIL Rnwy 11R, 22
Remarks: First 1000′ NE end rnwy 4–22 clsd to non-mil acft. Rnwy 11L–29R threshold displaced 610′ SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4–22.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2 117.3T 111.8T 110.3T 109.3T 108.6T
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 300 Vsby ¾ mi Min Alt 1140
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I–MSP Apch Brg 295°
109.3[1] I–APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H–SAB 266●/MSP 287° 2.4NM to fld.
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusable beyond 16 nmi. **VOT:** 111.0.

NODINE (H) BVORTAC 117.9/ODI **FSS:** LaCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD **FSS:** GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF **FSS:** REDWOOD FALLS

§ROCHESTER MUNI ***IFR*** 7S **FSS:** ROCHESTER on Fld
1310 H64/13–31(2) (S–126, T–159, TT–260) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 31
Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.8
App Con 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I–RST Apch Brg 307° **LOM:** 254/RS
(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC **FSS:** MINNEAPOLIS
Remarks: VFR use only.

ST PAUL

§ST PAUL-DOWNTOWN ***IFR*** 1S **FSS:** MINNEAPOLIS (DL)
703 H55/12–30(3) S–54, T–87, TT–160) BL2,5,11 S5 F5, JP5 U2
REIL: Rnwy 30
Remarks: 4562′ avbl lndg rnwy 12. NE–SW rnwy used as txwy.
St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R 117.3T 111.8T 110.3T 109.3T 266T
Minneapolis Dep Con 119.3
Tfc Info Ctc Minneapolis App Con on 126.5.
St Paul (T)VOR 108.6/STP 289° 4.6NM to fld.
Remarks: [1]Oper 1200–0400Z.

THIEF RIVER FALLS (L) BVOR 108.4/TVF **FSS:** GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

WILLMAR (T) VOR 108.4/ILL **FSS:** REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA **FSS:** LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG **FSS:** REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS **FSS:** TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV **FSS:** MOBILE

GREENVILLE (T) BVOR 110.2/GLH **FSS:** GREENWOOD

MISSISSIPPI—*Continued*

GREENWOOD (H) BVORTAC 114.7/GRW **FSS:** GREENWOOD

§GULFPORT MUNI *IFR* 3NE **FSS:** MOBILE (LC 436–4242)

28 H90/13–31(3) (S–80, T–120, TT–210) BL4,6 S5 F5, JP1 U2

Remarks: Arrest barrier in oper on Rnwy 13–31. J–bar avbl Rnwy 13–31 on 5 min notice. 1000′ overruns ea end Rnwy 13–31.

Tower 121.3 122.5R 109.0T **Gnd Con** 121.9

App Con 124.6 122.5R 109.0T

(L) BVORTAC 109.0/GPT on fld.

HATTIESBURG (L) BVORTAC 110.6/HBG **FSS:** McCOMB

HOLLY SPRINGS (L) BVOR 112.4/HLI **FSS:** MEMPHIS

JACKSON

§HAWKINS FIELD *IFR* 2NW **FSS:** JACKSON

343 H54/16–34(2) (Max 47) BL4,6 S5 F4 JP1 U2

Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW. SW 1615′ (1949′) twr 10 NM WSW.

Tower[3] 118.7 126.2 122.5R ~~121.6~~ 278T

Radar Services:

Jackson App Con 123.9[1] 125.2[2]

Jackson Dep Con 123.9 125.2

Jackson RBn H–SAB 260●/JAN 183° 2.3NM to fld.

Remarks: [1]333°–152°. [2]153°–332°. [3]1200–0400Z.

§THOMPSON FIELD *IFR* 5E **FSS:** JACKSON on Fld

345 H85/15L–33R(2) (S–120, T–150, TT–265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.

Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7

Radar Services: (BCN)

Jackson App Con 125.2[1] 123.9[2]

Jackson Dep Con 125.2[1] 123.9[2]

ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745

Tfc Info: Ctc App Con

ILS[3] 110.5 I–JAN Apch Brg 153° **LOM:** 365/JA

Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.

VHF/DF ctc twr.

Remarks: [1]153°–332°. [2]333°–152°. [3]Glide slope unusable below 485′.

KEESLER RBn HW 391/BIX **FSS:** MOBILE

KEWANEE (L) BVOR 113.8/EWA **FSS:** MERIDIAN

LAUREL (L) BVOR 108.6/LUL **FSS:** MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB **FSS:** McCOMB

MERIDIAN

§KEY FIELD *IFR* 3SW **FSS:** MERIDIAN on Fld

297 H80/1–19(2) (S–45, T–120, TT–220) BL6 S3 F4, JP3

RVV: Rnwy 01

Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Jet barrier rnwy 1–19. Servicing Fee after 7 P.M.

Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

Meridian App Con 120.5

Meridian Dep Con 124.8

ILS 110.1 I–MEI Apch Brg 004° BC unusable **LOM:** 356/ME

Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.

Remarks: [1]Twr opers 1300–0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ **FSS:** McCOMB

PICAYUNE (L) BVOR 112.2/PCU **FSS:** NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP **FSS:** MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR **FSS:** COLUMBIA

BLUE SPRINGS (L) BVOR 113.6/BSP **FSS:** KANSAS CITY

Remarks: Class to be (L) BVORTAC June 3

BUTLER (H) BVORTAC 115.9/BUM **FSS:** KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI **FSS:** CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI **FSS:** COLUMBIA

DOGWOOD (L) BVOR 109.4/DGD **FSS:** SPRINGFIELD

FARLEY RBN MHW 290/FRY **FSS:** KANSAS CITY

FARMINGTON (H) BVORTAC 115.7/FAM **FSS:** CAPE GIRARDEAU

FORNEY (L) VOR 110.0/TBN **FSS:** VICHY

RBn MH 391/TBN

HALLSVILLE (L) BVOR 115.4/HLV **FSS:** COLUMBIA

Remarks: To be (L) BVORTAC May 27.

JEFFERSON CITY (L) BVOR 110.2/JEF **FSS:** COLUMBIA

§JOPLIN MUNI *IFR* 4NE **FSS:** JOPLIN on Fld

980 H55(3) BL4,6 S5 F4 U1

Remarks: 999′ (2049′ MSL) twr 5 NM SSW.

ILS[1] 110.3 I–JLN Apch Brg 131° **LOM:** 219/JL

Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

KANSAS CITY

§MID-CONTINENT INTL *IFR* 15NW **FSS:** KANSAS CITY

1011 H90/18–36(1) (S–100, T–188, TT–350) BL6,8A,9

RVR: Rnwy 36

Tower 120.7 122.4R **Gnd Con** 121.8

Radar Services:

Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T **Kansas City Dep Con** 118.1

Tfc Info Ctc Kansas City App Con.

ILS 110.5 I–MCI Apch Brg 005° **LOM:** 359/MK

RBn H–SAB 359/MK 005° 4.4 to rnwy 36.

Remarks: [1]E sector. [2]W sector.

§KANSAS CITY MUNI *IFR* 4N **FSS:** KANSAS CITY on Fld

758 H70/18–36(3) (S–110, T–165, TT–365) BL4,6,8A,9,11,13 S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36

Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.

Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T

Dep Con 118.1

Tfc Info: Ctc App Con

PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.

ILS[3] 109.9 I–MKC Apch Brg 187° BC unusable **LOM:** 219/MK

(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.

Riverside (T) BVOR 111.4/RIS on fld.

VHF/DF contact tower.

Remarks: Acft approaching from 001–180° use 118.9 and/from 179°–360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. **VOT:** 108.6.

KIRKSVILLE (H) BVORTAC 114.6/IRK **FSS:** KIRKSVILLE

LAKE RBn HW 385/LAQ **FSS:** ST. LOUIS

MACON (L) BVOR 112.9/MCM **FSS:** KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW **FSS:** CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP **FSS:** VICHY

MARSHALL (L) BVOR 109.6/MHL **FSS:** COLUMBIA

MISSOURI—*Continued*

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS **FSS:** ST LOUIS

NEOSHO (L) BVOR 116.6/EOS **FSS:** JOPLIN

READSVILLE (L) BVOR 112.0/REA **FSS:** COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW **FSS:** KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW **FSS:** ST. LOUIS

ST JOSEPH

§ROSECRANS MEMORIAL *IFR* 3WNW **FSS:** KANSAS CITY (DL)

826 H80/17-35(3) (S-60, T-160, TT-250) BL4,6,8 S5 F4

RVV: Rnwy 35

Tower 119.9 122.5R **Gnd Con** 121.9

Kansas City App Con 121.1 126.2 122.7R 118.9

Kansas City Dep Con 118.1

ILS[1] 110.3 I-STSJ Apch Brg 352° **LOM:** 260/ST

(L) BVORTAC 108.2/STJ 167° 10.7NM to fld.

Remarks:[1] ILS unusable below 1060′

ST. LOUIS

§LAMBERT-ST LOUIS *IFR* 10NW **FSS:** ST. LOUIS on Fld

571 H100/12R-30L(4) (S-100, T-150, TT-330) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24

Remarks: Arresting gear rnwy 12R-30L. Threshold lgts permly relctd 476′ SE apch end rnwy 12R.

St. Louis Tower. 118.5 126.2 122.7R **Gnd Con** 121.9

‡Clrnc Del 119.5

Radar Services:

St. Louis App Con 126.5[1] 123.7 118.1[2] 117.4T 110.3T 109.7T **St. Louis Dep Con** 119.9

Tfc Info Ctc St. Louis App Con.

PAR[4] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.

ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.

ILS 110.3 I-STL Apch Brg 238° **LOM:** 404/ST
109.7 I-LMR[3] Apch Brg 117° **LOM:** 338/LM

VHF/DF available, contact tower.

St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.

St. Louis RBn (H-SAB) 338●/LM 117° 5.3NM to fld.

Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [3]Front and BC unusable beyond 17 NM below 2400′ MSL. [4]Radar monitoring of instrument apchs only at pilot's request.

VOT: 111.0 LOM is H-SAB.

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§SPIRIT OF ST. LOUIS 20W **FSS:** ST. LOUIS

462 H51/7-25(1) (S-30) BL6 S5 F4 DT2

Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, lndgs not authorized.

Tower[1] 121.3 122.5R 121.5X **Gnd Con** 121.7

St. Louis App Con 126.5[2] 118.1[3]

VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.

Remarks: [1]Opers 1200-0300Z. [2]Southeast arrivals. [3]Northwest arrivals.

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§SPRINGFIELD MUNI *IFR* 5NW **FSS:** SPRINGFIELD on Fld

1267 H56/1-19(2) (S-65, T-95, TT-165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1

Tower 119.9 122.5R **Gnd Con** 121.9

VFR ADV 125.8

App Con 125.8 122.5R 116.9T 109.9T

ILS[1] 109.9 1-SGF Apch Brg 015° **LOM:** 404/SG

(H) BVORTAC 116.9/SGF 193° 6.8NM to fld

RBn H-SAB 254●/SGF 137° 3.6NM to fld

VHF/DF: ctc FSS.

Remarks: [1]Glide slope unusable below 1325 ft MSL.

VICHY (L) BVORTAC 117.7/VIH **FSS:** VICHY

WHITEMAN (L) VOR 109.0/SZL **FSS:** COLUMBIA

RBn HW 314/SZL

MONTANA

BILLINGS

§LOGAN FIELD *IFR* 2NW **FSS:** BILLINGS on Fld

3606 H86/9-27(3) (S-130, T-200, TT-400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9

Remarks: 1000′ overrun each end rnwy 9-27.

Billings Tower 118.3 122.5R

VFR ADV: 120.5

Billings Gnd Con 121.9

Billings App Con 120.5 122.5R 114.5T 110.3T

ILS[1] 110.3 I-BIL Apch Brg 095° **LOM:** 251/BI

Billings (H) BVORTAC 114.5/BIL 070° 3.2NM to fld

Billings RBn H-SAB 400 /BIL 243° 1.4NM to fld

VHF/DF: Avail ctc FSS.

Remarks: [1]Not approved for auto apchs.

BOZEMAN (L) BVOR 112.2/BZN **FSS:** BOZEMAN

RBn H-SAB 329●/BZN

BUTTE (L) BVOR 111.6/BTM **FSS:** BUTTE

CUT BANK (L) BVOR[2] 114./CTB **FSS:** CUT BANK

RBn[1] **BH** 263/CTB

Remarks: [1]VFR use only. [2]To be BVORTAC June 17.

DILLON (H) BVORTAC 113.0/DLN **FSS:** DILLON

RBn[1] **BH** 379/DLN

Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU **FSS:** MISSOULA

GLASGOW (H) VOR 113.9/GSG **FSS:** MILES CITY

RBn H 236/GSG

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§GREAT FALLS INTL *IFR* 3SW **FSS:** GREAT FALLS on Fld

3671 H90/3-21(4) (S-60, T-80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34

Remarks: Rnwy 7-25 not authorized to acft over 64,000 lbs GWT. Jet barrier rnwy 3-21.

Tower 118.7 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1 119.3 116.3T **Dep Con** 121.1

Tfc Info Ctc App Con on 118.1 119.3 or 122.7R

ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171

ILS 110.3 I-GTF Apch Brg 341° BC unusable **LOM:** 407/GT

(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld

RBn H-SAB 371/GTF 009° 0.9 NM to fld

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§HELENA *IFR* 2NE **FSS:** HELENA on Fld

3873 H70/8-26(3) (S-90, T-120, TT-200) BL 5,11 S5 F5, JP1 U2 **REIL** rnwy 26

Remarks: Rnwy 11-29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.

Tower 118.3 122.5R **Gnd Con** 121.9

App Con 118.3

(H) BVORTAC 117.7/HLN at fld.

RBn SBH 317/HLN VFR use only.

KALISPELL (L) BVOR 108.4/FCA **FSS:** MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT **FSS:** LEWISTOWN

RBn[1] **SBH** 353/LWT

Remarks: [1]VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM **FSS:** LIVINGSTON

RBn[1] **BH** 224/LVM

Remarks: [1]VFR use only.

MILES CITY (H) BVORTAC 112.1/MLS **FSS:** MILES CITY

Rbn (H-SAB) 320 /MLS

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§MISSOULA CO *IFR* 4NW **FSS:** MISSOULA on Fld

3203 H-70/11-29(3) (S-120, T-155, TT-235) BL6 S5 F4 U2

Tower[1] 118.5 122.5R **Gnd Con** 121.9

MONTANA—*Continued*

(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1]Oper 1300–0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA **FSS:** BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA **FSS:** SCOTTSBLUFF
RBn[1] **HW** 287/AIA
Remarks: [1]Owned by State.

BEATRICE (T) BVOR 110.6/BIE **FSS:** LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR **FSS:** CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

COLUMBUS (T) BVOR 110.4/OLU **FSS:** LINCOLN
Remarks: Owned by State.

GORDON RBN HW 293/GRN **FSS:** CHADRON
Remarks: Owned, operd by State.

§GRAND ISLAND MUNI *IFR* 4NE **FSS:** GRAND ISLAND on Fld
1846 H72(3) (S–42, T–65, TT–125) BL5,6,8A,9 S5 U–1 F5, JP–1
Remarks: 1000′ asphalt overrun both ends rnwy 17–35. BAK/12 arresting gear lctd 90′ in overrun rnwy 35 and 80′ in overrun rnwy 17.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1]Oper 1200–0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI **FSS:** GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT **FSS:** IMPERIAL

HOLDREDGE RBn HW 396/HDE **FSS:** GRAND ISLAND
Remarks: Owned by State.

IMPERIAL RBn BH 353/IML **FSS:** IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN **FSS:** SIOUX CITY CS/T

KEARNEY (T) VOR 111.2/EAR **FSS:** GRAND ISLAND
Remarks: Owned by state.

§LINCOLN MUNI/AFB *IFR* 4NW **FSS:** LINCOLN on Fld
1198 H129/17R–35L(2)[1] (Max–15) BL6,8A,9,11 S5
F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: [1]All civ acft use 4000′ rnwy 17L–35R except Max 30, BL6 in actual IFR conditions or when acft manufacturers' recommendations rqr the use of rnwy 17R–35L. Ctn-jet tfc. Rnwy 17L–35R (S–31, T–50, TT–87)
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I–LNK Apch Brg 351° **LOM:** 385/LN
RBn MHW 385/LN
Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC.

McCOOK (L) BVOR 110.0/MCK **FSS:** NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK **FSS:** OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF **FSS:** NORTH PLATTE
RBn H–SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD *IFR* 3NE **FSS:** OMAHA on Fld
983 H85/14–32(2) (S–180, T–200, TT–400) BL4,6,8A,9,11,12
S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: US Customs lndg rgts arpt.
Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R
Omaha Dep Con 124.5 118.0
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I–OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H–SAB 320●/OMA 140° 4.4 NM to fld.
Remarks: [1]BC unusable beyond 16 NM.

O'NEILL (H) BVORTAC 113.9/ONL **FSS:** GRAND ISLAND

OSHKOSH RBn (HW) 233/OKS
Remarks: Owned by State.

PAWNEE CITY (H) BVORTAC 112.4/PWE **FSS:** LINCOLN

RAYMOND (L) BVORTAC 116.0/RAY **FSS:** LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF **FSS:** SCOTTSBLUFF
RBn SBH[1] 341/BFF
Remarks: [1]Operd by State.

SIDNEY (H) BVOR 115.7/SNY **FSS:** SIDNEY

VALENTINE RBn HW 314/VTN **FSS:** OMAHA (day)
Remarks: [1]Operd by State.

WOLBACH (H) BVORTAC 114.7/OBH **FSS:** GRAND ISLAND

NEVADA

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM **FSS:** ELKO

BEATTY (H) BVORTAC 114.7/BTY **FSS:** TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD **FSS:** LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL **FSS:** TONOPAH

CURRANT (L) BVOR 113.4/URR **FSS:** ELY

ELKO (L) BVORTAC 114.5/EKO **FSS:** ELKO
RBn SABH 391●/EKO

ELY (L) BVOR 110.6/ELY **FSS:** ELY

HAZEN (L) BVORTAC 114.1/HZN **FSS:** LOVELOCK

INDIAN SPRINGS RBn HW 215/INS **FSS:** LAS VEGAS

LAS VEGAS
§McCARRAN *IFR* 5S **FSS:** LAS VEGAS on fld.
2171 H125/7–25(3) (S–100, T–200, TT–380) BL4,6,10 S5
F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750′W end. 11,795′ avbl lndg rnwy 7 and tgof rnwy 25 day/ngt. 12545′ avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625′ SW end. 6878′ avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503′ avbl lndg rnwy 19 and tgof rnwy 1 day/ngt . Rnwy 32 threshold displaced 379′ SE end. 4021′ avbl rnwy 32 day/ngt. 4400′ avbl tkof rnwy 32 day only. 4021′ avbl tkof rnwy 32 ngt only. 4400′ avbl lndg rnwy 14 day only. 4021′ avbl lndg rnwy 14 ngt only. 4021′ avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 125.9 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H–SABZ 206●/LAS 196° 8.5 NM to rnwy 19.

NEVADA—*Continued*

LOVELOCK (L) BVORTAC 116.5/LOL FSS: LOVELOCK

MERCURY RBn HW 326/MCY FSS: LAS VEGAS

MINA (L) BVOR 113.1/MVA FSS: TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM FSS: LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO FSS: LOVELOCK

§RENO MUNI *IFR* 2SE FSS: RENO on Fld
4411 . H90/16–34(2) (S–100, T–200, TT–350) BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: A-gear each threshold rnwy 16–34.
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 254T
ILS 109.3 I–RNO Apch Brg 162° **LMM:** 254/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn SBH 254/RNO 161° 2.3NM to fld.
Remarks: LMM is SBH.

SOD HOUSE (L) BVOR 114.3/SDO FSS: LOVELOCK

SPARKS RBn MHW 329/SPK FSS: RENO

TONOPAH (L) BVORTAC 117.2/TPH FSS: TONOPAH

WELLS (L) BVOR 114.2/LWL FSS: ELKO

WILSON CREEK (H) BVOR 116.3/ILC FSS: CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML FSS: CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON FSS: CONCORD

KEENE (L) BVOR 109.4/EEN FSS: CONCORD
RBn MHW[1] 224/EEN
Remarks: [1]Oper by State.

LACONIA RBn MHW 400/LCI FSS: MONTPELIER
Remarks: Oper by State.

LEBANON (L) BVOR 113.7/LEB FSS: LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) *IFR* 4S FSS: CONCORD (LC 669–1641)
233 H70/17–35(2) (S–127, T–200, TT–400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower[1] 121.3 126.2 122.5R
ILS 108.3 I–MHT Apch Brg 352°
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW[2] 338/MHT 352° 3.5NM to fld.
Remarks: [1]Oper 1000–0300Z. [2]Oper by State.

NASHUA RBn MHW 260/AMH FSS: CONCORD (LC 889–0301)
Remarks: Oper by State.

NORTH CONWAY RBn MHW 334/CWN FSS: CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR
Remarks: To be comsnd May 25 and in common system later.

WHITEFIELD RBn MHW 272/HIE FSS: LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) *IFR* 9NW FSS: MILLVILLE (LC 399–8096)
76 H100/13–31(4) (S–63, T–88, TT–160) BL4,6,8A,9 S3 F5, JP4 DT2

NEW JERSEY—*Continued*

Remarks: Fee. BAK/9 arresting gear installed 2000′ from threshold rnwy 13 and 1000′ from threshold rnwy 31. Pendant 1½″ steel cable stretched across rnwy 31; ½–4″ above surface with rubber doughnuts extending 6″ above surface. Pendant may gyrate.
Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I–ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlantic City NAFEC (L) VORTAC[2] 108.6/ACY at NAFEC
VHF/DF contact tower.
Remarks: [1]400 authorized for rnwys 13, 17, 22, 26, 31. [2]TACAN unsuitable for apchs.

BARNEGAT (L) BVOR 116.7/BGT FSS: MILLVILLE

CHATHAM RBn MHW 254/CAT FSS: NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL FSS: TETERBORO

COYLE (H) BVORTAC 113.4/CYN FSS: MILLVILLE

LAKEHURST RBn HW 396/NEL FSS: N. PHILADELPHIA

MILLVILLE (L) BVORTAC 115.2/MIV FSS: MILLVILLE
Rng SBRAZ 363/MV

§MORRISTOWN MUNI *IFR* 2E FSS: TETERBORO (LC JE8–2196)
187 H40/4–22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 800′ rnwy 22. Ngt trng flts by nonbased acft prohibited. Due obstns, ramp and txwys not ctld by twr.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6[2] 124.3[3] 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: [1]Oper 1200–0400Z. [2]270–089° [3]090–269°

§NEWARK MUNI *IFR* 2 S FSS: TETERBORO (DL)
18 H70/4–22(2) (S–115, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE.
Tower 118.3 126.2 122.7R 110.3T 109.3T 109.1T
‡Clrnc Del 121.4 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6[2] 124.3[3] 122.7R 110.3T 109.3T
Dep Con 119.2 127.6
Tfc Info Inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I–EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW[4]
109.1 I–EWR Apch Brg 217° **LOM:**242/AR
RBn H–SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF contact tower.
Remarks: [1]Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix [2]270–089° [3]090–269° [4]LOM unusable beyond 12 mi 050–090°. **VOT:** 108.6

PATERSON RBn MHW 347/PNJ FSS: TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV FSS: N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE FSS: MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ FSS: TETERBORO

SPARTA (L)BVORTAC 112.3/SAX FSS: TETERBORO

STILLWATER (L) BVORTAC 109.6/STW FSS: TETERBORO

NEW JERSEY—*Continued*

§TETERBORO MUNI ***IFR*** 1 SW **FSS:** TETERBORO on Fld
7 H50/6-24(3) S-50, T-80, TT-) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission. Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14-32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I-TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY ***IFR*** 4 NW **FSS:** N. PHILADELPHIA (LC. 882-1590)
213 H52/6-24(3) S-31.5, T-51, TT-) BL4,11,12,[1] S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. [1]1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R 109.3T
Philadelphia Dep Con 119.0[1] 128.55[2]
ILS 111.3 I-TTN Apch Brg 065° **LOM:** 369/TT
Remarks: [1]270-089°. [2]090-269°.

WOODSTOWN **(L)BVOR** 112.8/OOD **FSS:** MILLVILLE

NEW MEXICO

ALAMOGORDA **RBn HWZ** 375/ALM **FSS:** ROSWELL

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB ***IFR*** 3 SE **FSS:** ALBUQUERQUE on Fld
5352 H127/8-26(4) (S-100, T-155, TT-445) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVV:** Rnwy 35
Remarks: First 1500′ rnwy 17 not visible to twr. Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC-3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
Gnd Con 121.9
Clrnc Del 119.2
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
Albuquerque Dep Con 121.1
Tfc Info Ctc App Con 25 mi out on 123.9.
PAR[2] Rnwy 8[1] Ceil 300 Vsby ¾ mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I-ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: [1]500-1½ rqrd for civil jet acft. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO **(L)BVOR-DME** 110.0/ACH **FSS:** LAS VEGAS

CANNON **(L) VORW** 115.7/CVS **FSS:** TUCUMCARI
RBn HW 272/CVS

CARLSBAD **(L)BVOR** 116.3/CNM **FSS:** CARLSBAD

CIMARRON **(H) BVORTAC** 116.4/CIM **FSS:** TRINIDAD

COLUMBUS **(L) BVORTAC** 111.2/CUS **FSS:** DEMING

CORONA **(L) BVOR** 115.5/CNX **FSS:** ALBUQUERQUE

DEMING **(L) BVOR** 108.6/DMN **FSS:** DEMING

§FARMINGTON MUNI ***IFR*** 2 NW **FSS:** FARMINGTON of Fld
5503 H67(2) (Max-60) BL4 S5 F4 U2

NEW MEXICO—*Continued*

Tower[1] 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF: ctc FSS.
Remarks: [1]Oper 1300-0500Z.

GALLUP **(H)BVORTAC** 115.1/GUP **FSS:** ZUNI

GRANTS **(L)BVORTAC** 116.5/GNT **FSS:** GRANTS

§HOBBS, LEA COUNTY ***IFR*** 4 W **FSS:** HOBBS on Fld
3659 H63/3-21 (4) (S-115 T-200 TT-400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN **(L)VORW** 115.8/HMN **FSS:** ROSWELL

LAS VEGAS **(H) BVORTAC** 117.3/LVS **FSS:** LAS VEGAS

OTTO **(L) BVOR** 114.0/OTO **FSS:** ALBUQUERQUE

PINON **(L) BVOR** 110.4/PIO **FSS:** EL PASO

§ROSWELL MUNI ***IFR*** 1 NW **FSS:** ROSWELL on Fld
3623 H58/17-35(4) (S-42, T-60, TT-110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 123.8 126.2X 122.7R 120.2X
Walker Dep Con 123.8 122.7R
Tfc Info Ctc Walker App Con 30 mi out at 10,000 and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn BH 305/ROW 312° 7.9 NM to fld.
VHF/DF ctc FSS[2].
Remarks: [1]Oper 1300-0500Z. [2]To be comsnd May 25

§SANTE FE COUNTY MUNI ***IFR*** 9 SW **FSS:** SANTA FE on Fld
6344 H83/2-20 (3) (S-45, T-60, TT-) BL4 S5 F4, JP1 U2
Tower 126.2 122.5R 119.5 **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO **(H) BVORTAC** 116.8/ONM **FSS:** ALBUQUERQUE

TAOS **(L) BVOR** 117.6/TAS **FSS:** SANTA FE

TRUTH OR CONSEQUENCES **(H) BVORTAC** 112.7/TCS **FSS:** TRUTH OR CONSEQUENCES

TUCUMCARI **(H) BVORTAC** 113.6/TCC **FSS:** TUCUMCARI

WALKER **RBn MHW** 396/LK **FSS:** ROSWELL

ZUNI **(L) BVORTAC** 113.4/ZUN **FSS:** ZUNI

NEW YORK

§ALBANY COUNTY ***IFR*** 6 NW AOE **FSS:** ALBANY on Fld
288 H50/1-19 (3) (S-110, T-200, TT-400) BL4, 6, 8A, 9 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S, trees SE. Rnwy 15-33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I-ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: **VOT:** 109.0

ALPINE **RBn MHW** 245/ALP **FSS:** ELMIRA

AVON **RBn MHW** 344/AVN **FSS:** ROCHESTER

BABYLON **RBn MHW** 275/BBN **FSS:** NEW YORK

BECKSGROVE **RBn MHW** 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY ***IFR*** 7 N **FSS:** BINGHAMTON on Fld
1629 H56/16-34(2) (S-94.5, T-135, TT-) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34

NEW YORK—*Continued*

Broome Tower 119.3 122.5R 114.3T 110.3T 112.1T
Gnd Con 121.9

Radar Services: (BCN)
Broome App Con 118.6 **Broome Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029

ILS 110.3 I–BGM Apch Brg 338° BC unusable **LMM:** 203/GM

Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.

Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO

§GREATER BUFFALO INTL ***IFR*** 5 E AOE **FSS:** BUFFALO on Fld
722 H81/5–23(2) (S–120, T–180, TT–400) BL4, 6, 11 S5 F5, JP1, JP4, JP5 DT2

Remarks: Fee.

Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7

Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7 110.3T
Buffalo Dep Con 125.5
Tfc Info Inbnd acft ctc Buffalo App Con on 126.5 orr 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219

ILS 110.3 I–BUF Apch Brg 052° BC unusable. **LOM:** 204/GB

Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld

Buffalo RBn BH 260/BUF 211° 0.9 nm to fld

VHF/DF contact Buffalo App Con

Remarks: VOT: 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM **FSS:** GLENS FALLS

CANARSIE (T) VORW 111.0/CRI **FSS:** JFK TWR

CARMEL (L) BVORTAC 116.6/CMK **FSS:** TETERBORO

DEER PARK (L) VORTAC 111.2/DPK **FSS:** NEW YORK

DE LANCEY (L) BVOR 112.1/DNY **FSS:** BINGHAMTON CS/T

DUNKIRK (L) BVOR 114.2/DKK **FSS:** BUFFALO

ELMIRA

§CHEMUNG COUNTY ***IFR*** 5 NW **FSS:** ELMIRA on Fld
951 H56/6–24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2

Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.5 122.5R 120.0[1]

ILS 109.1 I–ELM Apch Brg 239° BC restricted **LMM:** 230/LM

Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.

Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.

Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE **FSS:** BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT **FSS:** UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL **FSS:** GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO **FSS:** NEW YORK

HANCOCK (L) BVOR 109.0 HNK **FSS:** BINGHAMTON CS/T

HUGUENOT (H) BVORTAC 116.1/HUO **FSS:** WILKES-BARRE

ISLIP

§LONG ISLAND–MacARTHUR ***IFR*** 7 NE **FSS:** NEW YORK on Fld
98 H50/6–24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6

Remarks: Trees E.

Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7

Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4

NEW YORK—*Continued*

Kennedy Dep Con 123.9[1] 134.1 121.1[2]

ILS 108.3 I–ISL Apch Brg 057° **LOM:** 366/IS

VHF/DF: ctc FSS.

Remarks: [1]054–110°. [2]110–160°.

ITHACA (L) BVOR 111.8/ITH **FSS:** ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW **FSS:** BRADFORD

KINGSTON (L) BVOR 117.6/IGN **FSS:** POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS **FSS:** MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF **FSS:** POUGHKEEPSIE
RBn MHW 335/SWF

NEW YORK

§JOHN F KENNEDY INTL ***IFR*** 11 SE **FSS:** NEW YORK (DL)
12 H146/13R–31L(5) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 13L, 13R
RVR: Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]

Remarks: Fee. Clsd to fightertype, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R–31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3324′. Rnwy 7–25 clsd duration winter due constrn. Rnwy 4L–22R extended to 11,350′ with lndg threshold rnwy 22R displaced 3020′. Rnwy 13L displaced threshold usable length 7739′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Nonstandard. Lead in lgts rnwys 13L and 13R.

Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡Clrnc Del 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5

Radar Services: (BCN)
Kennedy App Con 127.4 134.1 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
PAR Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 22R Ceil 500 Vsby 1 mi Min Alt 512.
Rnwys 31R Ceil 400 Vsby 1 mi Min Alt 412.

ILS 109.5 I–JFK Apch Brg 042° **LOM:** 373/JF[4]
110.9 I–IWY Apch Brg 222° **LOM:** 226/IW
111.5 I–RTH[3] Apch Brg 311° BC unusable. **LOM:** 268/RT

Kennedy (H) BVORTAC 115.9/JFK on fld.

Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.

VHF/DF[1] contact Tower.

Remarks: [1]054–110°, [2]110°–160°. [3]Glide slope shutdown until July 1. [4]LOM is MHW. **VOT:** 112.5.

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§LA GUARDIA ***IFR*** 4E **FSS:** TETERBORO (DL)
21 H70/4–22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4
REIL: Rnwy 13–31, 22

Remarks: Fee. Rnwy threshold displaced 175′ NW. 5813′ avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. Rnwy 4 clsd to turbo jet acft lndg. Rnwy 22 clsd to turbojet acft tkof. 1465′ (1520′ MSL) twr 5 NM WSW.

FAA Dep Proc: Rnwy 13-rgt turn and proceed pver Flushing Meadow Park before turning on course.

Tower 118.7 122.7R 113.1T 109.9T 108.5T 110.5T
‡Clrnc Del 126.15 **Gnd Con** 121.7

Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 1085T 110.5T
Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [1]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.

NEW YORK—*Continued*

ILS 109.9 I–LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I–GDI[1] Apch Brg 134° **LOM:** 233/GD[5]
110.5 I–URD[2] Apch Brg 223° BC unusable **LOM:** 385/UR
La Guardia (L) VOR–DME 113.1/LGA 177° 0.4 NM to fld
VHF/DF contact App Con.
Remarks: Flwg shut down indef due arpt constrn: Rnwy 22 apch lgts; Rnwy 4 ILS, PAR adv svc to Rnwy 22. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000–3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235–245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. [5]To be comsnd June 30.
VOT: 109.0.

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§NIAGARA FALLS MUNI *IFR* 4 E **FSS:** BUFFALO (DL)
590 H91/10L–28R(4) (S–90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
Remarks: No signal SS–SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.
Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5 110.3T 278T
Buffalo Dep Con 125.5
ILS 110.1 I–IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF contact tower.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200–0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

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§ROCHESTER-MONROE CO *IFR* 3 SW AOE
FSS: ROCHESTER on Fld
560 H70/4–22(5) (S–126, T–160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS–SR to indicate IFR conditions.
Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I–ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I–MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON CS/T

ROME RBn HW 212/RME **FSS:** UTICA

SARANAC LAKE (T) BVOR 111.2/SLK **FSS:** MASSENA

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§SCHENECTADY COUNTY *IFR* 2 N **FSS:** ALBANY (DL)
378 H70/4–22(3) (S–52.5, T–75, TT–135) BL4, 6 S5 F5, JP5 DT2
Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr. Rnwy 28, 15 and 33 apch restricted by trees.

NEW YORK—*Continued*

Tower[1] 126.2 121.3 1225R 356T
Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF ctc twr.
Remarks: Opers 1200–0400Z.

SYRACUSE
§HANCOCK *IFR* 4 NE **FSS:** SYRACUSE on Fld
421 H90/10–28(3) (S–120, T–190, TT–350) BL4, 6, 8A, 9, 14 S5 F5, JP4 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 6–24 limited to acft under 12,500 lbs GWT.
Syracuse Towerr 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 125.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I–SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY *IFR* 7 NW **FSS:** UTICA on Fld
742 H60/15–33(2) (S–60, T–80, TT) BL4, 6, 8A, 9 S5 F2 U2 DT2 **RVV:** Rnwy 33.
Remarks: Rgt tfc rnwys 9 & 15.
Utica Tower 118.1 122.5R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.5R
Griffiss Dep Con 120.9
ILS 109.3 I–UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WESTHAMPTON BEACH
SUFFOLK COUNTY (T) VOR 110.4/FOK **FSS:** NEW YORK

WHITE PLAINS
§WESTCHESTER COUNTY *IFR* 3NE **FSS:** NEW YORK
439 H65/16–34(3) (S–63, T–110, TT–275) BL4, 8A, 9 S5 F5, JP5 U2 DT2
Remarks: Trees NW, SE. Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I–HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI *IFR* 9 S **FSS:** GREER (LC 684–4401)
2161 H65/16–34(1) (S–100, T–160, TT–275) BL6,8A,9,10 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.
Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I–AVL Apch Brg 342° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA **FSS:** ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB **FSS:** WILMINGTON CS/T

NORTH CAROLINA—*Continued*

CHARLOTTE
§DOUGLAS MUNI ***IFR*** 4 W **FSS:** HICKORY (LC 332-8161)
748 H78/18-36 (S-60) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932′ MSL) twr 10 NM ENE. Rnwy 18 threshod displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148
ILS[2] 109.5 I-CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L) BVORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. **VOT:** 112.0

COFIELD (L) BVORTAC 114.4/CVI **FSS:** ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG **FSS:** ELIZABETH CITY

FAYETTEVILLE
§GRANNIS FIELD ***IFR*** 3 S **FSS:** FAYETTEVILLE on Fld
189 H50/3-21(2) (S-64, T-120, TT-200) BL4,6,8A,9 S5 F4, JP4
RVV: Rnwy 3
Remarks: Trees NNW, SSE.
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I-GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB **FSS:** ROCKY MOUNT

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG **FSS:** ROCKY MOUNT

§GREENSBORO-HIGH POINT/WINSTON-SALEM ***IFR*** 7 W
FSS: RALEIGH (LC BR 56341)
927 H64/14-32(2) (S-40, T-140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Grensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1327
ILS[1] 109.9 I-GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY **FSS:** HICKORY

KINSTON (L) BVORTAC 109.6/ISO **FSS:** NEW BERN

LIBERTY (L) BVOR 111.2/LIB **FSS:** RALEIGH-DURHAM

NEW BERN (L) BVOR 108.4/EWN **FSS:** NEW BERN

PINEHURST (L) BVOR 111.8/SOP **FSS:** FAYETTEVILLE

§RALEIGH-DURHAM ***IFR*** 9 NW **FSS:** RALEIGH on Fld
435 H75/5-23(3) (S-110, T-160, TT-270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: No signal btn SS-SR indicate gnd vsby of less than 2.6 NM and/or ceil less than 1000.

NORTH CAROLINA—*Continued*

Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 122.5R 120.6
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I-RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H-SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 635′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT **FSS:** ROCKY MOUNT

SEYMOUR-JOHNSON AFB (L) VOR 116.5/GSB **FSS:** ROCKY MOUNT
RBn MHW 285/GSB
ILS[1] 109.3 I-GSB Apch Brg 077° BC unusable **LOM** 285/GSB
Remarks: LOM is MHW. [1]Glide slope unusable below 309′.

WEEKSVILLE RBn (HW) 254/EKV **FSS:** ELIZABETH CITY

WILMINGTON
§NEW HANOVER CO ***IFR*** 2 NE **FSS:** NEW BERN
(LC 762-7567)
31 H80/5-23(3) (S-120, T, TT)* BL4, 6, 8A, 9 S5
F5, JP5
Remarks: *(S-90, T-120, TT-212) avbl rnwy 5-23 (S-30, T-48, TT-86) avbl rnwy 9-27 Rnwy 9 threshold displaced 2875′ E. Usable length rnwy 9-27 4127′. Due non-vsby some areas of fld, ctc twr. Jet arresting gear rnwy 16-34.
Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9
Clrnc Del 121.9
Wilmington App Con 118.8 122.5R 110.3T
ILS[1] 110.3 I-ILM Apch Brg 343° **LOM:** 281/IL
Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.
Remarks: [1]Glide slope unusable below 231′.

WINSTON-SALEM
§SMITH REYNOLDS ***IFR*** 2NE **FSS:** HICKORY
969 H66/15-33(3) (S-40, T-85, TT-105) BL4, 6, 8, 12 S5
F5, JP5 U2 **RVV:** Rnwy 33.
Remarks: Apch lgts oper 0700-2300 only. Rnwy lgts 15-33 only oper 2300-0700. Rnwy 3-21 (S-56, T-85, TT-105)
Winston-Salem Tower[1] 118.7 126.2 122.7R 278T
Gnd Con 121.7
Radar Services: (BCN)
Greensboro App Con 118.5 122.5R 120.9 109.9T
Greensboro Dep Con 124.6
ILS[2] 110.3 I-INT Apch Brg 328° BC unusable **LOM:** 317/IN
Remarks: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300-0700 EST daily.

NORTH DAKOTA

§BISMARCK MUNI ***IFR*** 2 SE **FSS:** BISMARCK on Fld
1653 H69/12-30(3) (S-78, T-114, TT-190) BL4, 6, 8 S5
F4 JP4 U2 **RVV:** Rnwy 30
Remarks: Rnwys 17-35, 2-20 and E-W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to lndg acft.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
ILS 110.3 I-BIS Apch Brg 306° **LOM:** 215/BI
(L) BVOR 116.5/BIS 272° 3.6 NM to fld
RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB **FSS:** MINOT

DEVILS LAKE (L) BVOR 111.0/DVL **FSS:** GRAND FORKS

NORTH DAKOTA—*Continued*

DICKINSON (H) BVORTAC 112.9/DIK **FSS:** DICKINSON

RBn BH[1] 308/DIK

Remarks: [1]VFR use only.

FARGO

§HECTOR FIELD ***IFR*** 2NW **FSS:** FARGO on Fld

900 H91/17-35(3) (S-90, T-120, TT) BL4,6,8 S5

F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35

Fargo Tower 118.3 122.5R* **Gnd Con** 121.9

Fargo App Con 125.8 110.3T 365T

VFR ADV Ctc App Con 25 mi out on 125.8

ILS 110.3 I-FAR Apch Brg 351° **LOM:** 219/FA

Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld

Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVOR 111.2/GFK **FSS:** GRAND FORKS

JAMESTOWN (L) BVOR 114.5/JMS **FSS:** JAMESTOWN

MINOT (L) BVOR 117.1/MOT **FSS:** MINOT

Rng BMRLZ 209/MT

PEMBINA (H) BVORTAC 112.4/PMB **FSS:** GRAND FORKS

RED RIVER (H) VOR 116.7/RDR

RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN **FSS:** MINOT

OHIO

§AKRON MUNI ***IFR*** Adj SE AOE **FSS:** AKRON on Fld

1059 H53/7-25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2

REIL: Rnwys 7 and 25.

Remarks: Poles E. Obstn lgts inop SE hill apch rnwy 32.

Tower 120.1 122.7R 110.9T **Gnd Con** 121.9

Radar Services:

Akron-Canton App Con 125.5 126.2 122.5R 109.5T

Akron-Canton Dep Con 118.6

ILS 110.9 I-AKR Apch Brg 246° **LOM:** 362/AKR

(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld

RBn MHW 362/AKR 246° 3.7 NM to fld.

Remarks: LOM is MHW.

§AKRON-CANTON ***IFR*** 10SE **FSS:** AKRON

1228 H56/1-19(4) (S-100, T-135, TT-210) BL4,6,11 S5 F5, JP1

DT2 **RVV:** Rnwy 1 **REIL:** Rnwy 23

Remarks: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.

Tower 126.2 122.5R 118.3 109.5T **Gnd Con** 121.7

Radar Services: (BCN)

App Con 125.5 126.2 122.5R 109.5T

Dep Con 118.6

ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400 Vsby 1 mi Min Alt 1628

ILS 109.5 I-CAK Apch Brg 006° **LOM:** 233/CA

Remarks: VOT: 112.0. VOT freq to be 115.4 May 27.

APPLETON (H) BVORTAC 116.7/APE **FSS:** COLUMBUS

ATHENS RBn MHW 206/UOA **FSS:** PARKERSBURG

ATTICA (L) BVORTAC 116.9/ATO **FSS:** MANSFIELD

BELLAIRE (L) BVOR 111.0/AIR **FSS:** WHEELING

Remarks: To be BVORTAC May 31.

BRECKSVILLE RBn MHW 326/BKI **FSS:** CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV **FSS:** AKRON

OHIO—*Continued*

CHARDON (L) BVORTAC 109.8/CXR **FSS:** CLEVELAND

COVINGTON, KY. (CINCINNATI, OHIO)

§GREATER CINCINNATI ***IFR*** 9SW Cincinnati **FSS:** CINCINNATI

890 H86/18-36(3) (S-179, T-283, TT-500) BL4,6,8A,9,11 S5

F5 **REIL:** Rnwy 27

Remarks: Rnwy 4-22 clsd to acft over 48,000 lbs. Fee.

Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7

Clrnc Del 121.3

Radar Services:

Cincinnati App Con 124.7 126.2 122.7R 119.7

Cincinnati Dep Con 121.0

ASR Rnwys 4, 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290. Rnwys 22, 27 Ceil 700 Vsby 1 mi Min Alt 1590

ILS 109.9 I-CVG Apch Brg 360° **LOM:** 287/CV

111.5 I-SIC Apch Brg 180° **LOM:** 351/SI

Cincinnati (L) BVORTAC 112.9/CVG 043° 2.3 NM to fld

VHF/DF contact tower or radar

Remarks: VOT: 108.4.

§CINCINNATI MUNI-LUNKEN FLD ***IFR*** 3SE **FSS:** CINCINNATI on Fld

488 H61/2R-20L(4) (S-55, T-75 TT-167) BL4,6,8A,9 S5 F4, JP4

U2

Remarks: Rnwy 2L threshold displaced 900′ NE from end full width pavement. 4794′ avbl lndg rnwy 2L; tkoff rnwy 20R. 4984′ avbl lndg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 700′ SE. 3334′ avbl lndg rnwy 15; tkoff rnwy 33. 4034′ avbl tkoff rnwy 15, lndg rnwy 33.

Lunken Tower 126.2 122.5R 118.7 **Gnd Con** 121.9

Radar Services:

Cincinnati App Con 119.7 126.2 124.7 122.7R

Cincinnati Dep Con 121.0

ILS 111.1[1] I-LUK Apch Brg 201° **LOM** 379/MDE

Cincinnati Rng SABRAZ 335/LUK 227° 4.3 NM to fld

Remarks: LOM is Madeira RBn. [1]Freq to be 110.9 June 30

CLEVELAND

§BURKE LAKEFRONT Adj N **FSS:** CLEVELAND (DL)

584 H52/6-24(1) (S-31, T-37, TT-55) BL 6 S5 F4, JP1

U2 DT2

Remarks: Fee. Rgt tfc rnwy 24.

Lakefront Tower[3] 126.2 122.5R 120.9 **Gnd Con** 121.9

Radar Services

Cleveland App Con 124.0[1] 122.7R 118.5[2]

Cleveland Dep Con 121.0

Remarks: [1]270°-089° [2]090°-269° [3]Oper 1100-0300Z.

§CLEVELAND-HOPKINS INTL ***IFR*** 9SW AOE **FSS:** CLEVELAND on Fld

792 H90/5R-23L(5) (S-54, T-78, T--126)* BL4,6,8A,9,10,11 S5

F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27

REIL: Rnwy 36L.

Remarks: *(S-125, T-188, TT-338) avbl rnwy 9-27. Rnwy 23L apch restricted by fence.

Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7

$Clrnc Del 127.4

ATIS 108.4[3]

Radar Services: (BCN)[6]

Cleveland App Con 124.0[1] 122.7R 118.5[2] 110.7T 109.9T **Cleveland Dep Con** 121.0

ASR Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292. Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.

ILS 109.9 I-CLE Apch Brg 055°

110.7 I-CEE[5] Apch Brg 278° **LMM:** 244/EE

Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld

Cleveland RBn H-SAB 344●/CLE 070° 0.8 NM to fld

VHF/DF contact tower

OHIO—*Continued*

Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]Emergency Basis. [6]To be comsnd June 30 **VOT:** 110.4

CLINTON (T) VOR 113.2/ILN **FSS:** DAYTON
RBn MHW 219/ILN

§COLUMBUS, PORT COLUMBUS INTL *IFR* 6E **FSS:** COLUMBUS on Fld
816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28R **REIL:** Rnwys 10R, 28R.
Remarks: *(S–180, T–200, TT–400) avbl rnwy 10L–28R. Due non-vsby some areas of fld, ctc twr.
Tower 126.2 121.1 109.1T 3023.5R **Gnd Con** 121.9
Clrnc Del 121.3
Radar Services: (BCN)
App Con 119.0 126.2 125.4 122.5R 109.5T 3023.5R
Dep Con 120.5 126.2
ASR [2]Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.
Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.
ILS[1] 109.1 1–CBP Apch Brg 096° **LOM:** 271/CB
109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM
RBn BH 391/CMH 070° 1.0 NM to fld
VHF/DF contact tower
Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM. [2]RVR and ASR apchs unavbl til June.
VOT: 111.0

CUYAHOGA RBn MHW 275/CUC **FSS:** CLEVELAND

DAYTON
§JAMES M COX-DAYTON MUNI *IFR* 9N **FSS:** DAYTON on Fld
1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: P-line SE. 1096′ TV twr 10NM S.
Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 125.2
Radar Services: (BCN)
Dayton App Con 118.0 122.7R 111.6T 110.3T
Dayton Dep Con 119.9
ILS[1] 110.3 1–DAY Apch Brg 056° **LOM:** 356/DA
Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.
Remarks: **VOT:** 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI **FSS:** FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY **FSS:**FINDLAY
RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO **FSS:** FINDLAY
Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL **FSS:** CLEVELAND

HAMILTON RBn MHW 260/HAO **FSS:** CINCINNATI

HUBBARD RBn MHW 408/HBD **FSS:** YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN **FSS:** YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA **FSS:** FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK **FSS:** COLUMBUS

LUNKEN RBn MHW 248/LKA **FSS:** CINCINNATI

MADEIRA RBn MHW 379/MDE

§MANSFIELD MUNI *IFR* 3N **FSS:** MANSFIELD on Fld
1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32
Tower 119.3 122.5R 110.5T **Gnd Con** 121.9
App Con 124.7 122.5R 110.5T 108.8T
ILS 110.5 1–MFD Apch Brg 320° **LOM:** 374/MF
(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.
RBn MHW 374/MF 320° 4.0 NM to fld.

OHIO—*Continued*

Remarks: LOM is MHW.

MARION RBn MHW 230/MNN **FSS:** MANSFIELD

MIDDLETOWN RBn MHW 239/MWO **FSS:** DAYTON

MONTGOMERY CO. (T) VORW 110./MGY **FSS:** DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW **FSS:** ZANESVILLE

PATTERSON (T) VOR 111.6/FFO **FSS:** DAYTON
RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD **FSS:** DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY **FSS:** CLEVELAND

§SPRINGFIELD MUNI *IFR* 5S **FSS:** DAYTON (LC FA 2–4562)
1049 H90/5–23(3) (S–190, T–200, TT–380) BL4 S5 F4, JP4
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245–2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM **FSS:** CLEVELAND

STRONGSVILLE (L) VOR 108.4/STG **FSS:** CLEVELAND

TIPP CITY RBn MHW 212/TPC **FSS:** DAYTON

TIVERTON (L) BVOR 116.5/TVT **FSS:** MANSFIELD

§TOLEDO EXPRESS *IFR* 9SW **FSS:** FINDLAY (LC 242–4171)
684 H87/7–25(2) (S–107, T–163, TT–287) BL5,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 7
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084.
Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I–TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV **FSS:** TOLEDO

WILLOUGHBY
§LOST NATION *IFR* 2 N **FSS:** CLEVELAND (DL)
626 H50/9–27(3) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°–089° [2]090°–269° [3]Oper 0230–1430Z.

§YOUNGSTOWN MUNI *IFR* 10 N **FSS:** YOUNGSTOWN on Fld
1196 H75/14–32(3) (S–116, T–160, TT–270) BL4, 6, 8A, 9 S5 F4 TP1 U2 **RVV:** Rnwy 32
Remarks: Rnwy 9–27 rnwy lgts inop.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I–YNG Apch Brg 320° **LOM:** 338/YN
(L) BVOR–DME 109.0/YNG 183° 4.1 NM to fld.
VHF/DF contact tower

ZANESVILLE (L) BVORTAC 111.4/ZZV **FSS:** ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS
RBn HW 410/LTS **FSS:** HOBART

OKLAHOMA—*Continued*

ARDMORE (L) BVORTAC 116.7/ADM FSS: ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO FSS: TULSA

CLINTON (L) VOR 111.2/CSM FSS: HOBART
RBn MHW 320/CSM

DUNCAN (L) BVOR 111.0/DUC FSS: ARDMORE

GAGE (H) BVORTAC 115.6/GAG FSS: GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR FSS: HOBART

KINGFISHER (L) BVORTAC 114.2/IFI FSS: OKLAHOMA CITY

§LAWTON MUNI *IFR* 2 S FSS: WICHITA FALLS (LC EL5–1323)
1109 H54/17–35(1) (S–50, T–75, TT–135) BL4 S5 F5 JPI U–2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.5R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230–0430Z.

McALESTER (L) BVORTAC 112.0/MLC FSS: McALESTER

MUSKOGEE RBn MHW 306/MKO FSS: TULSA (DL)

OKLAHOMA CITY
§WILEY POST *IFR* 7 NW FSS: OKLAHOMA CITY on Fld
1303 H54/17–35(3) (S–15, T–20, TT–30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 120.5 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200–0400Z.

§WILL ROGERS WORLD *IFR* 6W FSS: OKLAHOMA CITY (DL)
1284 H98/17R–35L(4) (S–120, T–160, TT–) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3–21 and txwy (C–1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr.
Tower 118.′3 126.2R 122.7R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 120.5 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I–OKC Apch Brg 351° **LOM:** 219/OK
Oklahoma City (H) BVORTAC 115/OKC 098° 8.1 NM to rnwy 12
Oklahoma City RBn H–SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM FSS: TULSA

OWASSO RBn MHW 317/DW FSS: TULSA

PAGE (L) BVOR 113.5/PGO CS/T: FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC FSS: PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO FSS: HOBART

STILLWATER (T) BVOR 108.4/SWO FSS: OKLAHOMA CITY (LC FR 2–4935)

TINKER AFB RBn HW 394/TIK FSS: OKLAHOMA CITY

TULAKES RBn MHW 406/TWO FSS: OKLAHOMA CITY

§TULSA INTL *IFR* 5NE FSS: TULSA on Fld
674 H100/17L–35R(5) (S–200, T–200, TT–400) BL4, 6, 8A, 9, 10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R
Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy.
Tower 118.7 122.5R **Gnd Con** 121.9
$Clrnc Del 121.2
Radar Services: (BCN)
App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7
Tfc Info Ctc App Con 25 mi out on 119.1
ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074
ILS 109.7 I–DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I–TUL[2] Apch Brg 355° **LOM:** 338/TU
(H) BVORTAC 114.4/TUL 260° 4.3 NM to rnwy 26
RBn H–SAB 245●/TUL 220° 0.9NM to fld.
Remarks: [1]500–1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL; unusable for automatic apchs. Both systems not operd simultaneously. **VOT:** 109.0

§TULSA RIVERSIDE *IFR* 5S FSS: TULSA
624 H40/18–36(1) BL4 S5 F4 U2
Remarks: Due non-vsby some areas of fld, ctc twr.
Tower:[1] 118.1 122.7R
Remarks: [1]Oper 1200–0400Z.

WOODRING (T) BVOR 109.0/ODG FSS: PONCA CITY

OREGON

ASTORIA (L) BVOR 114./AST FSS: HOQUIAM

BAKER (L) BVORTAC 115.3/BKE FSS: BAKER

CORVALLIS (L) BVOR 108.4/CVO FSS: EUGENE

EUGENE
§MAHLON-SWEET FLD *IFR* 7 NW FSS: EUGENE on Fld
365 H55/16–34(2) (S–80, T–120, T–190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16
Eugene Tower 118.9 122.5R **Gnd Con** 121.9
Eugene App Con 118.9 122.5R 112.9T 109.5T
ILS 109.5 I–EUG Apch Brg 159° **LOM:** 227/EU
Eugene (L) BVORTAC 112.9/EUG on fld

JOHN DAY (H) BVOR 115.6/JDA FSS: BAKER

KLAMATH FALLS
§KINGSLEY FLD *IFR* 4 SE FSS: KLAMATH FALLS on Fld
4092 H103/14–32(3) (S–100, T–200, TT–380) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2
Kingsley Tower 118.5 122.5R 269T **Gnd Con** 121.9
Radar Services: (BCN)
Klamath Falls App Con 126.2 122.5R
Klamath Falls Dep Con 124.1
Tfc Info Ctc App Con
ILS[1] 109.5 I–LMT Apch Brg 319° BC unusable **LMM:**269/MT
Klamath Falls (L) BVORTAC 115.9/LMT on fld
Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.
Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV FSS CS/T: KLAMATH FALLS

§MEDFORD MUNI *IFR* 2 N FSS: MEDFORD on Fld
1330 H54/14–32(2) (S–80, T–120, TT–180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVV:** Rnwy 14

OREGON—*Continued*

Remarks: Ngt fueling delay and surcharge 1800–0730 lcl time.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 119.8 110.3T 113.6T
ILS[1] 110.3 I-MFR Apch Brg 141° **LOM:** 394/MF
(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.
RBn SBH 263/MFR 161° 2.1NM to fld.
VHF/DF contact tower.
Remarks: [1]ILS not certified for automatic apchs. [2]VHF/DF coverage 40 NM at MEA excp 360–015°, 9000′; 015–030°, 10,000′; 030–057°, 11,000′; 120–210°, 13,500′; 315–350°, 8000′; 350–360°, 8500′; 057–075°, 30 NM at 11,000′; 075–120°, 30 NM at 13,500′; 210–225°, 30 NM at 12,000′; 225–250°, 30 NM at 10,500′.

NEWBERG (H) BVORTAC 117.4/UBG **FSS:** PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP **FSS:** EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH **FSS:** NORTH BEND
RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO **FSS:** BOISE

§PENDLETON MUNI *IFR* 2 NW **FSS:** PENDLETON on Fld
1493 H63/7L–25R(4) (S–70, T–100, TT–170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25
Remarks: Rnwy 25L threshold displaced 821′W. 2029′ avbl lndg rnwy 25L, 7R–25L dalgt operns only lgt planes.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 114.7T 341T
ILS 110.3 I-PDT Apch Brg 250° **LOM:** 236/PD
(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.
RBn SABH 341●/PDT 259° 1.7 NM to fld

§PORTLAND INTL *IFR*..4 NE **FSS:** PORTLAND on Fld
26 H88/10R–28L(3) (S–100, T–200, TT–400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R
Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.0
Radar Services: (BCN)
App Con 118.1[2] 126.2 122.7R 119.8[3] 109.9T
Dep Con 124.9
Tfc Info Ctc App Con
PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226
ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726
Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826
ILS 109.9 I-PDX Apch Brg 098° BC restricted **LMM:** 201/DX
111.3 I-IAP Apch Brg 278° **LOM:** 383/IA
(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.
Rng SABH 332●/PDX 155° 2.9 NM to fld.
VHF/DF contact tower.
Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070–289°. [3]290–069°. **VOT:** 111.0.

§PORTLAND-TROUTDALE *IFR* Adj NW **FSS:** PORTLAND (DL)
36 H46/7–25(1) (Max 20) BL 4 S5 F4 U2 DT2
RVV: Rnwy 7
Remarks: Rnwy 7 threshold displaced 400′ E. 4241′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 500′W. 4141′ avbl lndg rnwy 25.
Troutdale Tower[3] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Portland App Con 118.1[1] 119.8[2]
Portland Dep Con 124.9
Remarks: [1]070–289° [2]290–069°. [3]Oper 1500–0700Z.

REDMOND (L) BVORTAC 117.6/RDM **FSS:** REDMOND
RBn H–SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO **FSS:** BAKER

OREGON—*Continued*

ROSEBURG (L) BVOR 108.2/RBG **FSS:** EUGENE CS/T

§SALEM-MCNARY FLD *IFR* 1 SE **FSS:** PORTLAND (DL)
207 H58/13–31(2) (S–50, T–60, TT–110) BL4, 6 S5 F4 U1 DT2 **RVV:** Rnwy 31
Remarks: Rnwy 16–34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins.
ILS[1] 110.3 I-SLE Apch Brg 309° **LOM:** 266/SL
Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY **FSS:** PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS **FSS:** THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON *IFR* 3 NE
FSS: ALLENTOWN on Fld
388 H62/6–24(4) (S–55, T–76, TT–125) BL4,6,8A,9 S5 F5 U2 DT2 **RVR:** Rnwy 6
Remarks: 5210′ avbl lndg rnwy 24. Rnwy 14–32 open for ngt opern 2415′ btn threshold lgts plus 175′ of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9
Clrnc Del 121.9
Allentown App Con 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061° **LOM:** 400/AB
Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld
Allentown Rng SBMAZ 321/AE 195° 2.5 NM to fld.

ALTOONA (T) BVOR 108.8/AOO **FSS:** ALTOONA

AMBLER RBn MHW 275/ING **FSS:** N. PHILADELPHIA
Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD **FSS:** BRADFORD
RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP **FSS:** PITTSBURGH

CARROLLTOWN (L) BVOR-DME 110.6/CLN **FSS:** ALTOONA

CLARION (L) BVOR 112.9/CIP **FSS:** DU BOIS

COATESVILLE RBn MHW 262/CVE **FSS:** N. PHILADELPHIA

CREEK RBn MHW 219/CRK **FSS:** PITTSBURGH

CRYSTAL LAKE RBn (MHW) 392/CYE **FSS:** WILKES–BARRE

DU BOIS RBn BH 356/DUJ **FSS:** DU BOIS

EAST TEXAS (L) BVOTAC 110.2/ETX **FSS:** ALLENTOWN CS/T

ELLWOOD CITY (H) BVORTAC 115.8/EWC **FSS:** PITTSBURGH

ERIE
§PORT ERIE *IFR* 5 SW .. **FSS:** ERIE on Fld
732 H50/6–24(3) (S–75, T–115, TT–) BL4, 6, 8A, 9, 11 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Erie Tower 118.1 122.5R 110.3T (118.4)[1] **Erie Gnd Con** 121.9
Erie App Con 119.0 122.5R 110.3T
ILS 110.3 I-ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

FITZGERALD (L) BVOR 112.0/FTZ **FSS:** DUBOIS
Remarks: To be decomsnd May 26.

FRANKLIN (L) BVOR 109.6/FKL **FSS:** YOUNGSTOWN
RBn MHW 233/FKL

§HARRISBURG-YORK STATE *IFR* 3 S **FSS:** HARRISBURG on Fld
347 H50/8–26(3) (S–65, T–105, TT–185) BL4, 6, 8A, 9 S5 F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26.
Harrisburg Tower 119.5 126.2 122.5R 109.1T
Gnd Con 121.9

PENNSYLVANIA—*Continued*

Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447.
Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I–HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMRAZ 338/HR 118° 0.9 NM to fld.

HAZELTON (T) BVOR 109.4/HZL **FSS:** WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200–2400Z by City.

IMPERIAL (L) BVORTAC 109.4/IRL **FSS:** PITTSBURGH

INDIANA RBn MHW 242/INP **FSS:** ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/HD **FSS:** MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST **FSS:** ALTOONA

KEATING (L) BVOR 114.7/ETG **FSS:** PHILIPSBURG

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§LANCASTER *IFR* 5N **FSS:** HARRISBURG (LC 392–0881)
403 H50/8–26(2) (S–77, T–107, TT–) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
RBn MHW 326/LRP
Remarks: [1]Oper 1200–0400Z.

LATROBE (T) VORW 108.2/LBE **FSS:** PITTSBURGH

MCKEESPORT RBn MHW 287/MKP **FSS:** PITTSBURGH

MILTON (L) BVORTAC 109.2/MP **FSS:** WILLIAMSPORT

PARKWAY RBn MHW 302/PB **FSS:** PITTSBURGH

PHILADELPHIA

§NORTH PHILADELPHIA *IFR* 10 NE **FSS:** N. PHILADELPHIA on Fld
120 H50/6–24(2) (S–120, T–200, TT–) BL4, S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
Remarks: [1]270–089° [2]090–269°

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§PHILADELPHIA INTL *IFR* 5 SW **FSS:** N. PHILADELPHIA (DL)
14 H95/9–27 (3) (S–120, T–200, TT–400) BL4, 6, 8A, 9 S5
F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: Fence E, NE. Constrn vcnty rnwy 27.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
PAR [3]Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 214
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
ILS 109.3 I–PHL Apch Brg 085°. **LOM:** 237/PH
VHF/DF contact tower.
Remarks: [1]270–089° [2]090–269° [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB **FSS:** PHILIPSBURG
RBn MHW 236/PSB

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PITTSBURGH

§ALLEGHENY COUNTY *IFR* 4 S **FSS:** PITTSBURGH on Fld
1252 H55/9–27(3) (S–70, T–120, TT–210) BL6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30
Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7
Radar Services: (BCN)
Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]
Pittsburgh Dep Con 125.9
ILS 109.1 I–AGC Apch Brg 275° BC unusable **LMM:** 201/GC
(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld
RBn H–SAB 254●/AGC 082° 2.0 NM to fld
Remarks: [1]270–089° [2]090–269°

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§GREATER PITTSBURGH *IFR* 12 NW **FSS:** PITTSBURGH (DL)
1203 H105/10L–28R(4) (S–120, T–200, TT–400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32
Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. US Customs lndg rts arpt.
Pittsburgh Tower 119.1 126.2 122.7R 110.3T
‡Clrnc Del 121.3 **Gnd Con** 121.9
Radar Services: (BCN)
Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]
Pittsburgh Dep Con 125.9
Tfc Info Ctc Radar App Con on 124.15 when approaching from NW & NE, and on 118.7 from SE & SW.
PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1368
ASR Rnwys 5,14,23.28R,32 Ceil 500 Vsby 1 mi Min Alt 1703
Rnwy 10L, 10R, 28L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I–GPB Apch Brg 277° BC unusable **LOM:** 323/GP
111.7 I–LXB Apch Brg 097° BC unusable **LMM:** 365/XB
VHF/DF contact tower.
Remarks: [1]270–089° [2]090–269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POTTSTOWN (L) BVORTAC 116.5/PTW **FSS:** N. PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING

§GENERAL SPAATZ FIELD *IFR* 2NW **FSS:** HARRISBURG (LC 376–3045)
343 H51/18–36(3) (S–30, T–45, TT–175) BL4, 6, 7, 12 S5
F4, JP4 U2 DT2
Remarks: Rgt tfc rnwys 5, 13, and 36.
Reading Tower 119.9 126.2 122.5R 109.5T
Gnd Con 121.9
Reading App Con 119.9 126.2 122.5R 109.5T
ILS 109.5 I–RDG Apch Brg 001° BC unusable **LOM:** 269/RD
VHF/DF available, contact tower.

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

TOBYHANNA RBn MHW 410/TSD **FSS:** WILKES BARRE

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** N. PHILADELPHIA

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§WILKES-BARRE-SCRANTON *IFR* 9 NE **FSS:** WILKES-BARRE on Fld
956 H52/4–22 (3) (S–100, T–140, TT–) BL4–6,8A,9 F5, JP4
DT2 **RVV:** Rnwy 4

PENNSYLVANIA—*Continued*

Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.

FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.

Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9

Radar Services: (BCN)

Wilkes-Barre App Con 124.5 122.5R 109.9T

Wilkes-Barre Dep Con 126.3

ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956

Rnwy 10,22 Ceil 900 Vsby 1½ mi Min Alt 1956

ILS[1] 109.9 I-AVP Apch Brg 043° BC unusable **LOM:** 257/AV

Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.

Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

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§WILLIAMSPORT-LYCOMING CO ***IFR*** **4 E FSS:** WILLIAMSPORT on Fld

528 H50/9-27 (3) (S-40, T-60, TT-) BL4,6,8A,9 S5 F4, JP1 DT2

Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 12,500 lbs and under. Rnwy 12-30 (Max-200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW. Rnwy 12-30 rnwy lgts inop.

Williamsport Tower 119.1 122.5R

Williampsort Gnd Con 121.9

Williampsort App Con 124.9 122.5R

ILS 110.1 I-IPT Apch Brg 266° BC unusable **LMM:** 281/PT

Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** N. PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO **FSS:** BOSTON

PROVIDENCE

§GREEN ***IFR*** **6 S** **FSS:** PROVIDENCE on Fld

56 H54/5R-23L(4) (S-94.5, T-143, TT) BL5,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 5R

Remarks: Fee. No mult engine lndgs 5L, no tkofs 23R.

Providence Tower 120.7 122.5R 109.3T 368T

Gnd Con 121.9

Clrnc Del 121.9

Radar Services: (BCN)

Quonset App Con 118.6 134.1 120.1

Quonset Dep Con 124.5 126.2 123.8

ILS 109.3 I-PVD Apch Brg 046° BC unusable **LOM:** 368/PV

Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

ANDERSON (L) BVOR 108.6/AND **FSS:** ANDERSON

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§CHARLESTON AFB/MUNI ***IFR*** **9 NW** **FSS:** CHARLESTON on Fld

45 H90/15-33 (2) (S-50, T-155, TT-305) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15

Tower 126. 122.5R 121.0 113.5T 109.7T **Gnd Con** 121.9

Clrnc Del 121.7

Radar Services:

App Con 119.3 118.5 113.5T 109.7T

Dep Con 123.9

ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.

PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445

Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245

Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445

ILS[1] 109.7 I-CHS Apch Brg 149° BC unusable **LOM:** 329/CH

(H) BVORTAC 113.5/CHS on fld.

RBn H-SAB 329●/CH

Remarks: LOM is H-SAB. **VOT:** 111.0.

SOUTH CAROLINA—*Continued*

CHESTERFIELD (L) BVOR 108.2/CTF **FSS:** FLORENCE

COLUMBIA

§COLUMBIA METROPOLITAN ***IFR*** **5SW**

FSS: FLORENCE (LC 254-9791)

236 H75/10-28(2) (S-45, T-130, TT-270) BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10

Remarks: Rnwy 5-23 (S-45, T-170, TT-320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.

Tower 126.2 122.5R 119.5 110.3T **Gnd Con** 121.9

App Con 118.2 122.5R 114.7T 110.3T

ILS 110.3 I-CAE Apch Brg 107° BC unusable **LOM:** 356/CA

(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.

§OWENS FIELD 1SE **FSS:** FLORENCE (LC 254-9791)

203 H36/15-33(2) (S-30) L4 S5 F4 U1

Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.

Tower[1] 126.2 122.5R

Columbia App Con 118.2 122.5R 110.3T 227T

Remarks: [1]AAS—Oper weekdays 1230-1630Z and 1745-2115Z. Sats 1230-1600Z.

CONWAY RBn HW 269/MTL **FSS:** FLORENCE

FLORENCE (H) BVORTAC 115.2/FLO **FSS:** FLORENCE

FORT MILL (L) BVOR 112.4/FML **FSS:** HICKORY

GREENVILLE

§GREENVILLE MUNI DOWNTOWN ***IFR*** **2 E** **FSS:** GREER

1047 H54/18-36 (3) (S-21, T-30, TT-60) BL4,6 S5 F4, JP1 U2

Remarks: Rgt tfc rnwys 18, 27, 23.

Tower 119.9 126.2 122.5R 109.7T 391T **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.0 124.3 122.5R 119.4 109.7T

Dep Con 118.8

ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.

Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.

ILS[1] 109.7 I-GRL Apch Brg 002° BC unusable **LOM:** 272/GR

Remarks: [1]Glide slope unusable below 1347′ MSL.

GREENWOOD (L) BVORTAC 114.9/GRD **FSS:** ANDERSON

GREER

§GREENVILLE-SPARTANSBURG ***IFR*** **3 S** **FSS:** GREER on Fld

972 H76/3-21 (2) (S-120) BL6,8A,9, 14,15 S5 F5, JP5 U2 **RVV:** Rnwy 3

Remarks: Fee commercial only.

Greer Tower 120.1 126.2 122.7R 115.7T 109.3T 209T

Gnd Con 121.8

Radar Services: (BCN)

Greenville App Con 118.0 126.2 124.3 122.5R 119.4 109.7T

Greenville Dep Con 118.8

ILS 109.3 I-GSP Apch Brg 033° **LOM:** 287/GS

VHF/DF ctc FSS.

MYRTLE BEACH (L) BVOR 116.0/MYR **FSS:** FLORENCE

SHAW AFB (L)VOR 109.2/SSC **FSS:** FLORENCE

RBn HW 375/SW

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§SPARTANSBURG DOWNTOWN MEMORIAL ***IFR*** **2SW**

FSS: GREER (LC 585-5470)

816 H52/4-22(3) (S-56) BL4, 6 S5 F5, JP1, JP5

Tower[1] 118.3 126.2 122.5R 317T **Gnd Con** 121.9

Clrnc Del 121.9

Radar Services: (BCN)

Greenville App Con 124.3

Greenville Dep Con 118.8

SOUTH CAROLINA—*Continued*

(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H–SAB 248[1]/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100–0300Z.

VANCE (L) BVOR 110.4/VAN **FSS:** CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR **FSS:** ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR **FSS:** PIERRE

ELLSWORTH (L) BVOR 110.8/RCA **FSS:** RAPID CITY

HURON
§HOWES MUNI *IFR* 1NW **FSS:** HURON on Fld
1287 H51/12–30(2) (S–50, T–75, TT–132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17–35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 1–HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM **FSS:** DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE **FSS:** HURON
Remarks: VFR use only.

MOBRIDGE (T)VOR 108.6/MBG
Remarks: Voice 0700–1900. State owned, operd. VFR use only.

PHILIP (L) BVOR 108.4/PHP **FSS:** PIERRE

PIERRE (L) BVORTAC 112.5/PIR **FSS:** PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

§RAPID CITY MUNI *IFR* 8SE **FSS:** RAPID CITY on fld
3181 H62/14–32(2) (S–63, T–85, TT–140) BL6,11 S5 F4 U2 JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld.
RBn[2] H–SAB 254/RAP 102° 1.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Oper 1300–0500Z. [2]To be SABH June 23.

SIOUX FALLS
§JOE FOSS FIELD *IFR* 2NW **FSS:** HURON (DL)
1428 H90/3–21(3) (S–85, T–120, TT–220) BL4,6,8A,9,11 S5 F5 JP1 U2 **RVV:** Rnwys 3, 21 **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9–27 clsd acft over 30,000 lbs. First 300′ rnwy 27 unusable tkof. Usable length 5392′. Rnwy 9–27 unserviceable for acft over 15 tons.
Foss Tower 118.3 122.5R **Gnd Con** 121.9
Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 1–FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

WATERTOWN (L) BVORTAC 116.6/ATY **FSS:** WATERTOWN

WINNER (L) BVOR 112.8/ISD **FSS:** PIERRE

YANKTON (L) BVOR 111.4/YKN **FSS:** HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW **FSS:** TRI-CITY on Fld

TENNESSEE—*Continued*

1519 H66/4–22(2) (S–95, T–125, TT–215) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 119.5 126.2
ILS[1] 109.9 I–TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 500 Vsby ¾ mi Min Alt 2019
Remarks: [1]Glide slope unusable below 2019′ MSL. Lclzr unusable abope 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME **FSS:** MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E **FSS:** CROSSVILLE (LC 267–5343)
682 H62/2–20(2) (S–90, T–120, TT–) BL4,6,8A,9,10 S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanoga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I–CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn MHW 341/CQN 196° 7.7 NM to fld.
Remarks. [1]016–196° [2]197–015° Glide slope unusable below 882′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV **FSS:** NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV **FSS:** CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR **FSS:** DYERSBURG

GRAHAM (L) BVOR 111.6/GHM **FSS:** NASHVILLE

HARDEE RBn MHW 281/MKL
Remarks: Privately owned.

HIGHWAY (L) BVOR 108.4/HIY **FSS:** CROSSVILLE

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY CS/T

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE
§McGHEE-TYSON *IFR* 11S **FSS:** KNOXVILLE on Fld
989 H90/4L–22R(3) (S–84, T–90, TT–200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services:
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I–TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H–SAB[1] 257/TYS 200° 2.6 NM to fld
VHF/DF contact tower.
Remarks: [1]AB 1000–0300Z. **VOT:** 112.0.

TENNESSEE—*Continued*

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§MEMPHIS METROPOLITAN *IFR* 3S **FSS:** MEMPHIS on Fld

331 H89/9-27(4) (S-105, T-150, TT-240) BL4,6,8A,9,10,15 S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35

Remarks: Rnwys 3-21 & 14-32 (S-100). Rnwy 17-35. (S-110, T-150, TT-270). 3816′ avbl lndg & tkoff both directions rnwy 14-32. 1088′ (1340′ MSL) twr 9 NM NNE. 1078′ (1333′ MSL) twr 10 NM NE. 1077′ (1349′ MSL) twr 11 NM NE. Touch-down zone lgts rnwy 35.

Tower 126.2 122.5R 118.3 115.5T 110.5T 109.5T

Gnd Con 121.9

Radar Services: (BCN)

App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7

Tfc Info Ctc App Con 25 mi out.

ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731

ILS 109.5 I-MEM[6] Apch Brg 087° **LOM:** [4]287/ME

110.5 I-TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]

(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.

RBn SBH 371/TS 354° 4.7 NM to fld

VHF/DF available, contact FSS

Remarks: [1]077-271° [2]272-076° [3]Glide slope unusable below 400′ MSL. [4]LOM is Brooks MHW. [5]LOM is SBH. [6]Glide slope unusable below 350′ MSL. **VOT:** 111.0

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§NASHVILLE METROPOLITAN *IFR* 5SE **FSS:** NASHVILLE on Fld

597 H80/13-31(3) (S-76, T-130, TT-220) BL4,6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 2L

Remarks: Rnwy 2R-20L-240′ overrun N end; 1185′ S end; rnwy 2L-20R-1065′ overrun S end; rnwy 13-31-1000′ overrun SE and NW end. 1368.5′ (2049′ MSL) twr 8.5 NM W. 1179′ (2049′ MSL) 9 NM NNW.

Berry Tower 126.2 122.5R 119.1 109.9T **Gnd Con** 121.9

Radar Services: (BCN)

App Con 120.6 124.0 122.5R 109.9T

Dep Con 118.4

Tfc Info Ctc App Con 25 mi out on 120.6.

ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997

ILS 109.9 I-BNA Apch Brg 016° **LOM:**304/BN

Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.

Nashville RBn H-SAB[2] 304●/BN 016° 5.0 NM to rnwy 13.

VHF/DF available, contact tower

Remarks: [1]Main 1200′ til 2 mi from end of rnwy on final to rnwy 20R. LOM is H-SAB. [2]AB 0500-2200. **VOT:** 112.0.

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 298/UOS **FSS:** CROSSVILLE

Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE

RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT

TEXAS

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§ABILENE MUNI *IFR* 3SE **FSS:** ABILENE on Fld

1778 H60/17-35(2) (S-70, T-89, TT-145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35

Remarks: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmitt 122.5 and receive 124.1 mc 20 mi out.

Tower[1] 120.1 122.7R 110.3T 126.2 **Gnd Con** 121.9

Radar Services: (BCN)

App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0

TEXAS—*Continued*

Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out

ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB

(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.

Remarks: [1]Opers 0600-2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

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§AMARILLO AFB/MUNI *IFR* 8E **FSS:** AMARILLO on Fld

3605 H135/3-21(2) (S-65, T-330, TT-470) BL6,8A,9,10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21

Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100′ MSL. Overhead tfc ptn 5400′ MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.

Tower 126.2 122.5R 118.3 **Gnd Con** 121.9

Radar Services: (BCN)

App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T

Dep Con 119.5

Tfc Info Ctc App Con 25 NM out on 124.8

ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005. Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105

ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM

(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.

RBn SABH 251●/AMA 109° 1.3 NM to fld.

Remarks: [1]Glide slope unusable below 3905′ MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN

§MUELLER MUNI *IFR* 2NE **FSS:** AUSTIN on Fld

631 H73/12R-30L(5) (S-74, T-100, TT-159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVV:** Rnwy 30L

Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 900′ SE. 6400′ avbl lndg rnwy 12R. Rnwy 16R threshold displaced 600′ S. 4406′ avbl lndg rnwy 16R. 1137′ (2049′ MSL) twr 5 NM W. 1199′ (2049′ MSL) twr 7 NM W.

Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9

Radar Services: (BCN)

Austin App Con 124.9 118.8 122.7R 112.5T

Austin Dep Con 120.8

ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031

Tfc Info Contact App Con 25 mi out on 118.8.

ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU

Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.

Austin RBn MHW 353/AU 305° 4.8 NM to fld.

Remarks: LOM is MHW.

BEAUMONT-PORT ARTHUR

§JEFFERSON CO *IFR* 9SE **FSS:** BEAUMONT on Fld

16 H57/11-29(3) (S-65, T-91, TT-170) BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16

Remarks: (S-83, T-118, TT-212) avbl rnwy 16-34.

Tower 119.5 122.5R **Gnd Con** 121.9

Beaumont App Con 121.3 122.5R 114.9T

ILS 109.5 I-BPT Apch Brg 114° **LOM:** 257/BP

Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.

RBn[1] **MHW** 368/BEM

Remarks: [1]VFR use only.

BEEVILLE **FSS:** ALICE

§CHASE (NAAS) FLD 45E

186 H80/13R-31L(3) BL4,6,7

Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.

Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO **FSS:** FORT WORTH

BERGSTROM (L) VORW 109.8/BSM **FSS:** AUSTIN

RBn HW 293/BSM

TEXAS—*Continued*

BIGGS RBn HW 400/BIF **FSS:** EL PASO

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326 /BGS

BORGER (L) BVOR 108.6/BGD **FSS:** AMARILLO

BRAZOS SANTIAGO RBn HW 314/PIL **CS/T:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE

§RIO GRANDE VALLEY INTL ***IFR*** **4E AOE FSS: BROWSNVILLE on Fld**
22 H74/13R–31(6) (S–26, T–50, TT–87) BL4,6,7,8A,9
S5 F5, JP1 JP4 U2
Remarks: Rnwy lgts on req after 2400. Constrn vcnty fld. Brush apch 31L. Trees apch rnwys 31R, 35R. Rnwy 17R–35L: (S–35, T–56, TT–108). Rnwys 8–26 and 4–22 do not meet air carrier standards for day/ngt operns.
Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I–BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.
Brownsville RBn SBH 388/BRO 155° 2.0 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 114.7/ARO **FSS:** BUFFALO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR **FSS:** ALICE

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION

§EASTERWOOD FIELD ***IFR*** 2SW **FSS:** COLLEGE STATION on Fld
319 H51/10–28(3) (S–30, T–40, TT–) BL4 S3 F4 JP1
Remarks: Services offered dalgt hrs only. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: [1]Oper 1200–0400Z.

CONNALLY RBn MHW 400/CNW **FSS:** WACO

§CORPUS CHRISTI INTL ***IFR*** 5W **FSS:** ALICE (LC TU 4–5712)
43 H56/13–31(2) (S–96, T–108, TT–152) BL4,6,8A,9 S5
F4, TP–1 JP4 U2 **RVV:** Rnwy 13
Remarks: Amber flashing lgt for rgt ptn. US Customs–lndg rts arpt 0800–1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I–CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS

§ADDISON ***IFR*** 9N **FSS:** DALLAS (LC FL2–8491)
637 H52/15–33(2) BL4 S5 F5. JP1 U2
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5

TEXAS—*Continued*

Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°–307° [2]308°–126°.

§DALLAS LOVE FIELD ***IFR*** 5NW **FSS:** DALLAS on Fld
485 H88/13R–31L(3) (S–100, T–150, TT–350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R
RVR: Rnwy 13L
Remarks: Rnwy 13R–31L limited to tkofs only. US Customs lndg rgts arpt 0030–1430 Mon-Fri, 0030–1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 126.2 122.5R 118.7 **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[2] 125.2 125.8[3] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I–DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF contact tower.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°–307° [3]308°–126° [4]Glide slope unusable below 677′ MSL due roughness. BC unusable for automatic apchs. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

§RED BIRD ***IFR*** 6SW **FSS:** DALLAS (LC FL2–8491)
659 H44/13–31(2) BL4 S5 F4, JP1 U2
Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°–307° [2]308°–126° [3]Oper 1200–0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

DYESS (L) VOR 109.2/DYS **FSS:** ABILENE
RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

§EL PASO INTL ***IFR*** 4NE (AOE) **FSS:** EL PASO on Fld
3956 H120/4–22(3) (S–95, T–156, TT–280) BL4,6,8A,9,11 S5
F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26
Remarks: Rnwy 4 threshold displaced 1000′ NE. 11,000′ avbl lndg rnwy 4. Rnwy 17 threshold displaced 395′ S. 6606′ avbl lndg rnwy 17.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
Dep Con 119.1
ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I–ELP Apch Brg 218° **LOM:** 266/EL
(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.
RBn H–SAB 242 /ELP 258° 3.2 NM to fld.
Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

TEXAS—*Continued*

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH

§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE FSS: FORT WORTH

568 H90/17–35(2) (S–83, T–120, TT–210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13

Remarks:1074′ (1679′ MSL) twr 10.5 NM WSW.

Southwest Tower 118.9 126.2 122.7R **Gnd Con** 121.8

Radar Services:

Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T

Fort Worth Dep Con 123.9 122.7R

Tfc Info Ctc App Con 25 NM out on 118.1

ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968

ILS 109.5 I–GSW Apch Brg 129° **LOM:** 219/GS

Greater Southwest (L) BVORTAC[1] 110.6/GSW at fld.

VHF/DF contact tower.

Remarks: VOT: 111.8. [1]Wea bcsts discontd 2400–0600 excp forecast.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld

692 H52/17–35(3) (S–60, T–80, TT–) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17

Remarks: P-line SE.

Tower[1] 126.2 122.7R 118.3 **Gnd Con** 121.9

Radar Services:

Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T

Fort Worth Dep Con 123.9 122.7R

ILS 109.9 I–FTW Apch Brg 174° **LOM:** 365/FT

Fort Worth RBn H–SAB 365●/FT 174° 3.5 NM to rnwy 17

Remarks: [1]Oper 1200–0400Z. LOM is H–SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON

RBn H–SAB 206●/GLS

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK **FSS:** COLLEGE STATION

GREENVILLE

§MAJORS FIELD *IFR* 4SE **FSS:** DALLAS

544 H80/17–35(3) (S–26, T–50, TT–) BL4 S5 F4

Remarks: Rgt tfc rnwy 17.

Tower[1] 121.3 122.5R **Gnd Con** 121.7

Remarks: [1]Oper 1330–2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE

HOOD (L) VORW 111.8/HLR **FSS:** COLLEGE STATION

RBn MHW 347/HLR

HOUSTON

§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld

48 H76/3–21(3) (S–75, T–107, TT–185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12

Remarks: US Customs lndg rgts arpt 0800–1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12–30, 3–21 not usable for lndgs or taxg acft; usable rnway pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.

Tower 118.7 126.2 122.5R **Gnd Con** 121.9

‡Clrnc Del: 127.6

ATIS 109.9

Radar Services:

App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T

Dep Con 120.2 126.2

Tfc Info Ctc App Con 25 mi out on 119.1 or 118.1

ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448

Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548

ILS 109.9 1–HOU Apch Brg 036° **LOM:** 251/HO

Houston (H) BVORTAC 115.9/HOU on fld.

VHF/DF available, contact tower.

Remarks: [1]218°–008° [2]009°–217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/DU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN

1515 H63/17–35(1) L4,11 F4 U1 **REIL:** Rnwy 35

Tower[1] 126.2

Radar Services:

Austin App Con 124.9 118.8 122.7R

Austin Dep Con 120.8

RBn MH 393/JCY 346° 2 NM to fld.

Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (L) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

Remarks: Oper 1200–2400Z.

KELLY (L) VORW 113.8/SKF **FSS:** SAN ANTONIO

RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI **FSS:** ALICE

§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2–3612)

524 H49/15–33(1) (S–25, T–37, TT–) BL4 S3 F4 U1

Remarks: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T.

VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.

(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.

RBn HW[1] 308/LRD

Remarks: [1]Oper 1200–2400Z Mon-Fri.

LAUGHLIN (L) VOR 114.4/DLF **FSF:** JUNCTION

RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FSS:** SAN ANTONIO

LEONA (L) BVORTAC 110.8/LOA **FSS:** COLLEGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

LONGVIEW

§GREGG COUNTY MUNI *IFR* 6SE **FSS:** GREGG COUNTY on Fld

365 H61/17–35(3) (S–75, T–100, TT–) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13

Tower 119.7 122.5R **Gnd Con** 121.9

ILS 109.5 I–GGG Apch Brg 127° **LOM:** 410/GG

Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

§LUBBOCK MUNI *IFR* 4NE **FSS:** LUBBOCK on Fld

3269 H85/17R–35L(5) (S–90, T–150, TT–250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R

Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl lndg rnwy 35L, 8500′ avbl lndg rnwy 17R. Clsd to tactical mil jet acft.

Tower 119.9 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)[1]

App Con 118.1 126.2 122.5R 110.8T

TEXAS—*Continued*

Dep Con 118.1
ASR[1] Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Min Alt 3669
ILS 109.5 I–LBB Apch Brg 169° **LOM:** 219/LB
(L)BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12
Remarks: [1]To be comsnd June 15.

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT **FSS:** DALLAS

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI **FSS:** PALACIOS

McALLEN
§MILLER INTL ***IFR*** 2S (AOE) **FSS:** McALLEN on Fld
106 H49/13–31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13
Remarks: P-line N, S. TV ant NE. Rnwy 31 threshold displaced 542′ NE.
McAllen Tower 118.9 122.5R **Gnd Con** 121.9
Brownsville App Con: 119.5 126.2 118.1
McAllen (L) BVOR 109.8/MFE on fld
Remarks: Oper 1200–0400Z.

§MIDLAND AIR TERMINAL ***IFR*** 8SW **FSS:** MIDLAND on Fld
2870 H83/10–28(4) (S–100, T–128, TT–280) BL4,6,8A,9 S5 F5,JP2 U2 **RVV:** Rnwy 10
Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl lndg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
App Con 121.1 122.5R 114.8T 110.3T
ILS 110.3 I–MAF Apch Brg 103° **LOM:** 344/MA
VHF/DF contact FSS.
(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.

MINERAL WELLS (H) BVORTAC 117.7/MWL **FSS:** MINERAL WELLS
RBn BMH 284/MWL

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CORPUS (L) VOR W 109.6/NGP **FSS:** PALACIOS
RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PLAINVIEW
§HALE COUNTY ***IFR*** 1S **FSS:** AMARILLO (LC CA 3–2148)
3372 H52/4–22(2) (S–30, T–40, TT) BL4 S5 F4 U2
Remarks: Hangar NE.
Tower[1] 118.9 122.5R **Gnd Con** 121.7
Lubbock App Con 118.1 126.2 112.9T
Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.
Remarks: [1]Oper 1200–0400Z.

QUITMAN (L) BVOR 114.0/UIM **FSS:** TYLER

RANDOLPH RBn HW 359/RND **FSS:** SAN ANTONIO
Remarks: Used as LOM.

ROCKSPRINGS (L) BVOR 111.2/RSG **FSS:** SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI **FSS:** BEAUMONT CS/T

SALT FLAT (L) BVORTAC 113.0/SFL **FSS:** EL PASO

SAN ANGELO
§MATHIS FIELD ***IFR*** 7SW **FSS:** SAN ANGELO on Fld
1915 H59/3–21(3) (S–35, T–56, TT–) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3
Remarks: Trees E. Rnwy 9–27 clsd to acft over 25,000 lbs GWT.

TEXAS—*Continued*

Tower 118.3 122.5R **Gnd Con** 121.9
San Angelo App Con 119.2 118.3 122.5R 115.1T 109.7T
ILS 109.7 I–SJT Apch Brg 033° **LOM:** 356/SJ
San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

§SAN ANTONIO INTL ***IFR*** 7N **FSS:** SAN ANTONIO on Fld
808 H85/12–30(3) (S–150, T–225, TT–300) BL4,6,8A,9 S5 F4, JP1 U2 **RVV:** Rnwy 3 **RVR:** Rnwy 12
Remarks: US customs lndg rts arpt 1000–2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′.
Tower 118.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 1208
ILS 110.9 I–ANT Apch Brg 123° BC unusable **LOM:** 305/AN
109.7 I–SAT Apch Brg 032° **LOM:** 219/SA
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
H–SAB 254/SAT 175° 2.3 NM to Rnwy 17
VHF/DF contact tower.
Remarks: **VOT:** 110.4.

SAN ANTONIO
§STINSON MUNI ***IFR*** 5S **FSS:** SAN ANTONIO (LC TA 6–9575)
577 H49/9–27(3) (S–40, T–75, TT–) BL5 S5 F4
Remarks: Trees all apchs. Tfc 800′ above terrain 1367′ MSL.
Tower[1] 119.5 122.7R **Gnd Con** 121.7
Radar Services:
San Antonio App Con 120.3 134.1 126.5 126.2R 122.5R
San Antonio Dep Con 123.9
Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld
Remarks: [1]Oper 1300–0500Z.

SEGUIN RBn HW 371/UCT **FSS:** SAN ANTONIO
Remarks: VFR only. Opers daylight hours Mon-Fri.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR **FSS:** DALLAS

TANK RBn BH 388/DDA **FSS:** DALLAS

TEMPLE (L) BVOR 110.4/TPL **FSS:** WACO

TEXICO (H) BVORTAC 112.2/TXO **FSS:** TUCUMCARI

TRADEWIND RBn MHW 338/AM **FSS:** AMARILLO

TYLER
§POUNDS FIELD ***IFR*** 4W **FSS:** TYLER on Fld
544 H52/13–31(3) (S–40, T–60, TT–100) BL5,6,8A,9 S5 F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl lndg rnwy 17.
Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I–TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT **FSS:** PALACIOS
(512) 445–1281

§WACO MUNI ***IFR*** 5NW **FSS:** WACO on Fld
515 H57/18–36(3) (S–26, T–38, TT–) BL4,6,8A,9 S5 F5 U2 **RVV:** Rnwy 18
Remarks: Rnwy 14–32 (S–46, T–64, TT–100)

TEXAS—*Continued*

Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 134.1 122.7R 115.3T
Dep Con 125.4
ILS 109.7 I–ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS
§SHEPPARD AFB/WICHITA FALLS AIR TRML ***IFR*** 5N FSS: WICHITA FALLS on Fld
1015 H131/15–33(2) (S–65, T–300, TT–530) BL4,6,8A,9,10 S5 F4, JP1 JP5 U2 **VASI:** Rnwys 15, 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700′ rectangular tfc ptn 2200′ MSL. Rgt tfc rnwys 17 & 33. Rnwy 17–35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Wichita Falls App Con 118.2 122.5R 109.7T
Wichita Falls Dep Con 118.2
ILS 109.7 I–SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.8 NM to rnwy 33.
VHF/DF ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK FSS: WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL FSS: SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE FSS: BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC FSS: CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA FSS: SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG FSS: SALT LAKE CITY

HANKSVILLE (H) BVORTAC 115.9/HVE FSS: HANKSVILLE

HILL RBn MHW 317/HI FSS: SALT LAKE CITY

LA SAL (L) BVORTAC 112.9/LXL FSS: GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU FSS: SALT LAKE CITY

MILFORD (H) BVORTAC 112.1/MLF FSS: CEDAR CITY

MYTON (H) BVORTAC 117.9/MTU FSS: GRAND JUNCTION

§OGDEN MUNI ***IFR*** 3SW FSS: SALT LAKE CITY (LC 394–8712)
4455 H73/3–21(3) (S–100, T–160, TT–280) BL4,11 S5 F5 JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000′ NE end. 6300′ avbl lndg day/ngt rnwy 21 and lndg rnwys. Tkof rnwy 21 ngts. 7300′ avbl lndg rnwy 3 and tkof rnwys 21 days.
Tower[1] 118.7 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1
Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
Remarks: [1]Oper 1300–0500Z.

PROVO (H) BVORTAC 116.6/PVU FSS: SALT LAKE CITY (LC 374–6327)

§SALT LAKE CITY MUNI NO. 1 ***IFR*** 4W FSS: SALT LAKE CITY on Fld
4226 H100/16R–34L(2) (S–100, T–160, TT–260) BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: Rnwy 7–25 & 14–32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500–2330Z Mon-Fri. No service holidays.

UTAH—*Continued*

Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
Radar Services:
Salt Lake App Con 120.9 122.7R 116.8T 109.5T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I–SLC Apch Brg 339° **LOM:** 239/SL
(H) BVORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF[1] contact tower.
Remarks: [1]VHF/DF unusable from 360 to 100°. **VOT:** 111.0

VERNAL (L) BVOR 108.2/VEL FSS: GRAND JUNCTION

VERMONT

§BURLINGTON MUNI ***IFR*** 2E AOE FSS: MONTPELIER (LC 878–3393)
335 H78/15–33(2) (S–62, T–110, TT–195) BL5,6,8A,9 S5 F5, JP1, JP4 U2 DT2 **RVV:** Rnwy 33
Tower 126.2 122.5R 118.3 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.2
Dep Con 119.2
ILS 110.3 I–BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H–SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF contact tower.
Remarks: VOT: 109.0.

MONTPELIER (L) BVOR 108.2/MPV FSS: MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK FSS: MONTPELLER

RUTLAND RBn MHWZ 391/RUT FSS: GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD FSS: LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA FSS: BLUEFIELD

BLACKSTONE RBn MHW 326/BKT FSS: BLACKSTONE (0600–2200)
FSS: RICHMOND (2200–0600)

BROOKE (L) BVORTAC 111.8/BRV FSS: WASHINGTON

CAPE CHARLES (L) BVORTAC 112.2/CCV FSS: NEWPORT NEWS

CASANOVA (L) BVORTAC 109.6/CSN FSS: WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE ***IFR*** 7N FSS: CHARLOTTESVILLE on fld
634 H46(1) BL4,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
ILS 109.1 I–CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.9 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD FSS: ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN FSS: DANVILLE

ECLIPSE RBn HW 209/NGU FSS: NEWPORT NEWS

EVINGTON RBn MHW 385/EVI FSS: ROANOKE

FELKER (T) VOR 111.4/FAF FSS: NEWPORT NEWS
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU FSS: NEWPORT NEWS
RBn MHW 356/NTU

VIRGINIA—*Continued*

FLAT ROCK (H) BVORTAC 113.3/FAK FSS: RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN FSS: NEWPORT NEWS
RBn H 362/FKN. Private facility

FRONT ROYAL (H) BVORTAC 115.3/FRR FSS: MARTINSBURG

GORDONSVILLE (H) BVORTAC FSS: CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM FSS: NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN FSS: WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW FSS: RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP FSS: ROANOKE
Remarks: Private Facility

LANGLEY (L) VOR 111.6/LFI FSS: NEWPORT NEWS

LAWRENCEVILLE (L) BVOR 112.9/LVL FSS: BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE FSS: ROANOKE

LINDEN (L) BVORTAC 114.3/LDN FSS: WASHINGTON

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§LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sept 6.
Lynchburg Tower 120.7 122.5 **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS[1] 110.1 I–LYH Apch Brg 032° **LMM:** 344/YH
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: [1]BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR FSS: CHARLOTTESVILLE
112.6/MOL

MORRISON RBn HW 248/MOV

NEWPORT NEWS
§PATRICK HENRY *IFR* 9NW FSS: NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5 F5, JP1 U2 DT FSS: NEWPORT NEWS on Fld
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30–Sept 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 126.8
ILS 110.1 I–PHF Apch Brg 065° BC unusable **LOM:** 375/PH

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§NORFOLK MUNI *IFR* 5NE FSS: NEWPORT NEWS (DL)
26 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVV:** Rnwy 4
Remarks: DT May 30–Sept 5. Rnwy 13 threshold displaced 219′ SE. 4657′ avbl lndg rnwy 13. 4876′ avbl lndg and tkof rnwy 31 and tkof rnwy 13. Rnwy open day/ngt operns. Rnwy 19 threshold displaced 950′ SW. Dalgt operns 4050′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both direstions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibted from making eng runup when facing SE at the apch end of rnwy 4.
Tower 121.1 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.9 **Dep Con** 118.5
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526
ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF contact tower.

PULASKI (H) BVORTAC 115.9/PSK FSS: BLUEFIELD
Rng SBMRAZ 272/PK

RICHMOND
§RICHARD E. BYRD FLYING FIELD *IFR* 6 E FSS: RICHMOND on Fld
167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5 F5, JP1, JP4 U2 DT **RVV:** Rnwy 6
Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ overrun each end rnwy 15–33. DT may 30–Sept 5.
Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Richmond App Con 119.0 126.2 122.5R 119.9 110.3T
Richmond Dep Con 118.2
Tfc Info Lndg acft App Con 35 mi out on 119.9
ASR Rnwys 2, 15,[1] 20, 24,[1] 33[1] Ceil 400 Vsby 1 mi Min Alt 567
Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667
ILS 110.3 I–RIC Apch Brg 063° **LOM:** 382/RI
Richmond (H) BVORTAC 114.1/RIC on fld.
Richmond SBH 260/RIC 018° 1.7 NM to fld.
Remarks: [1]400–¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT:** 110.8.

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§ROANOKE MUNI *IFR* 3 NW
FSS: ROANOKE on Fld
1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5 F5, JP1 DT **REIL:** Rnwy 23
Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sept 6.
Tower 118.3 122.5R 120.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 126.9 122.5R 120.2 109.0T
Dep Con 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374
Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV FSS: DANVILLE

SPRINGFIELD RBn MHW 353/SRI FSS: WASHINGTON

WOODRUM (T) VOR 109.0/ODR FSS: ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI FSS: BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K FSS: SEATTLE

ELLENSBURG (L) BVORTAC 117.9/ELN FSS: WENATCHEE

EPHRATA (H) BVOR 116.8/EPH FSS: EPHRATA

EVERETT
§PAINE FIELD *IFR* 6 SW FSS: SEATTLE (DL)
603 H90/16–34(2) (S–50, T–150, TT–220) BL6, 8A, 9 S5 F4, JP4 U2 DT2
Remarks: Rnwy 11 threshold displaced 1600′. Jet arresting barrier 3″ above rnwy 16/34 J-bar each end rnwy 34 not visible to twr 2000′ to 4000′ from apch end. Due constrn twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.
Tower 121.3 126.2 122.5R 3023.5R 278T
Radar Services:
Seattle Center App Con 121.2
ILS 109.3 I–PAE Apch Brg 155° **LOM:** 396/PAE

WASHINGTON—*Continued*

Everett (L) VOR 114.2/PAE on fld.
Everett RBn HW 396/PAE 158° 7.9 NM to fld
Remarks: LOM is HW.

GRAY RBn MH 216/GRF FSS: SEATTLE

HOQUIAM (H) BVOR 113.1/HQM FSS: HOQUIAM
Remarks: To be BVORTAC and freq 115.4 June 23.

KITSAP RBn MHW 206/PWT FSS: SEATTLE
Remarks: Operd by County.

LARSON (L) VOR 117.0/LRN FSS: EPHRATA
RBn MHW 408/LR

NEAH BAY RBn HW 391/EBY FSS: SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM FSS: SEATTLE

PASCO (L) BVOR 108.4/PSC FSS: WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM FSS: SEATTLE

§RENTON MUNI ***IFR*** Adjt NW 031° FSS: SEATTLE (LC RO 2–4000)
29 H53/15–33(1) (S–100, T–190, TT–300) BL4 S5
F4, U2 JP4 DT2
Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195–300° at 1000′ MSL beyond 2 mi.
Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9
Seattle Dep Con 119.2
Remarks: [1]Oper 0700–2300 lcl time.

SEATTLE
§KING COUNTY ARPT, BOEING FIELD ***IFR*** 4 S FSS: SEATTLE on fld
17 H100/13–31(2) (S–100, T–160, TT–290) BL6, 11, 12 S5
F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
Remarks: Rnwy 12–30 (Max–12.5)
Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2
ILS[1] 110.9 I–BFI Apch Brg 128° BC unusable **LOM:** 387/BF
Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.
Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

§SEATTLE-TACOMA INTL ***IFR*** 10 S FSS: SEATTLE (DL)
428 H119/16–34(2) S–45, T–145, TT–300) BL4,6,8A,9,14
S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I–SEA[1] Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I–SZI[2] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF contact tower.
Remarks: [1]Automatic apchs not authorized from MM to touchdown. [2]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

§SPOKANE INTL ***IFR*** 5 S FSS: SPOKANE
2372 H90/3–21(2) (S–100, T–200, TT–350) BL5, 6, 8A, 9
S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3–21.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3
Tfc Info Ctc Spokane App Con aprx 20 mi out.
ILS 109.9 I–GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: VOT: 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW FSS: SEATTLE

WALLA WALLA
§CITY-COUNTY ***IFR*** 3 NE FSS: WALLA WALLA on fld
1205 H72/2–20(3) BL4, 6, 8A, 9 S5 F5, JP4 DT2
Remarks: Apch end rnwy 25 not visible to twr. 1030′ overrun NE end, 500′ SW end.
Walla Walla Tower[1] 118.5 122.7R
(L) BVOR 111.8/ALW
RBn BH 356/ALW
Remarks: [1]Oper 1400–0200Z Mon-Fri; Clsd wkends, holidays. AAS propided by FSS when twr not in opern.

WENATCHEE (L) BVOR 111.0/EAT FSS: WENATCHEE

§YAKIMA MUNI ***IFR*** 2 S FSS: YAKIMA on Fld
1082 H55/9–27(3) (S–50, T–60, TT–100) BL4, 6 S5
F5, JP1, JP4 U2
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I–YKM Apch Brg 269° **LOM:** 284/YK
(H) BVOR 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW FSS: CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF FSS: BLUEFIELD

CHARLESTON
§KANAWHA ***IFR*** 2 NE FSS: CHARLESTON on Fld
982 H56/5–23(2) (S–150, T–200, TT–44) BL4, 6, 8A, 9, 11
S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:
Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I–CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/CRW 084° 8.1 nm to fld
VHF/DF contact tower.
Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. VOT: 111.0.

CLARKSBURG (L) BVOR 115.1/CKB FSS: MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN FSS: ELKINS
Rng SBMRAZ 245/EN

HENDERSON (L) BVORTAC 111.2/HNN FSS: HUNTINGTON

HUNTINGTON
§TRI-STATE (WALKER LONG FLD) ***IFR*** 6 SW
FSS: HUNTINGTON on Fld
828 H53/11–29(1) (S–50, T–75, TT–135) BL6, 8A, 9 S5
F4, JP1 U2 DT1
Huntington Tower 120.9 122.5R **Gnd Con** 121.9
Huntington App Con 118.5 122.5R 109.9T
ILS[1] 109.9 I–HTS Apch Brg 114° **LOM:** 287/HT
Huntington RBn BH 323/HTW 199° 2.5 NM to fld.
Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL FSS: ELKINS

WEST VIRGINIA—*Continued*

§MARTINSBURG MUNI ***IFR*** 4 S **FSS:** MARTINSBURG on Fld
556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2
Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Dulles App Con 119.2 126.1
Dulles Dep Con 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ¾ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.
Remarks: [1]Oper 0800–1630 Tues, Thur, Sat and Sun; 0830–2200 Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW **FSS:** MORGANTOWN
RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB **FSS:** PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL **FSS:** CHARLESTON

§WHEELING-OHIO COUNTY ***IFR*** 7 N **FSS:** WHEELING on Fld
1195 H40/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12
F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21
Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9
ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL
Wheeling (L) BVOR 112.2/HLG 220° 5.8 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU
FSS: ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW **FSS:** GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ **FSS:** WAUSAU

CAMP MC COY RBn MHW 412/CAY **FSS:** LA CROSSE

DELLS (L) BVORTAC 110.4/DLL **FSS:** LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU **FSS:** EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD **FSS:** GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG **FSS:** MINNEAPOLIS

GREEN BAY
§AUSTIN STRAUBEL ***IFR*** 7 SW **FSS:** GREEN BAY on Fld
694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT1 **RVR:** Rnwy 6
Remarks: US Customs lndg rts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE
Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9
Green Bay App Con 119.4
VFR ADV Ctc App Con on 119.4.
ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR
Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.
VHF/DF ctc FSS.

JANESVILLE
ROCK COUNTY ***IFR*** 4 SW **FSS:** ROCKFORD (LC EN5639)
808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2
REIL: Rnwy 4
Remarks: Rnwy 22 threshold displaced 6981 NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.
Tower 121.2 122.7R **Gnd Con** 121.9
Rockford App Con 119.6
(L) BVORTAC 113.4/JVL
Remarks: Opers 0500–2300 lcl time. Efctp May 16.

WISCONSIN—*Continued*

LACROSSE (T) BVOR 108.4/LSE **FSS:** LACROSSE
RBn SBH 371/LSE

LAND 'O LAKES RBn MHW 396/LNL **FSS:** WAUSAU
Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR **FSS:** LONE ROCK

MADISON
§TRUAX FIELD ***IFR*** 5 NE **FSS:** MADISON on Fld
859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36
Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.
Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9
Madison App Con 120.1 126.2 109.9T
Madison Dep Con 118.8
VFR ADV Ctc App Con on 120.1.
ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN
Madison RBn MHW 400/MSN 359° 3.9 NM to fld.
Truax (L) BVOR 115.5/TAX at fld.
VHF/DF contact FSS.
Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW **FSS:** GREEN BAY

MILWAUKEE
§GENERAL MITCHELL FLD ***IFR*** 5 S **FSS:** MILWAUKEE on Fld
722 H99/1–19(4) (S–200, T–200, TT–400) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwy 1
Remarks: Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N.
Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 120.0
Radar Services: (BCN)
Milwaukee App Con 126.5 126.2 123.8 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19, 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1323
ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Milwaukee RBn H–SAB 242●/MKE 352° 1.4 NM to fld.
VHF/DF contact tower.
Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. **VOT:** 109.0

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§TIMMERMAN FIELD ***IFR*** 5 NW **FSS:** MILWAUKEE (DL)
745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior premission except emgcy.
Tower[1] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[2] 126.2 123.8[2] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6

WASHINGTON—*Continued*

Everett (L) VOR 114.2/PAE on fld.
Everett RBn HW 396/PAE 158° 7.9 NM to fld
Remarks: LOM is HW.

GRAY RBn MH 216/GRF FSS: SEATTLE

HOQUIAM (H) BVOR 113.1/HQM FSS: HOQUIAM
Remarks: To be BVORTAC and freq 115.4 June 23.

KITSAP RBn MHW 206/PWT FSS: SEATTLE
Remarks: Operd by County.

LARSON (L) VOR 117.0/LRN FSS: EPHRATA
RBn MHW 408/LR

NEAH BAY RBn HW 391/EBY FSS: SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM FSS: SEATTLE

PASCO (L) BVOR 108.4/PSC FSS: WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM FSS: SEATTLE

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§RENTON MUNI *IFR* Adjt NW 031° FSS: SEATTLE (LC RO 2-4000)
29 H53/15-33(1) (S-100, T-190, TT-300) BL4 S5
F4, U2 JP4 DT2
Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195-300° at 1000′ MSL beyond 2 mi.
Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9
Seattle Dep Con 119.2
Remarks: [1]Oper 0700-2300 lcl time.

SEATTLE
§KING COUNTY ARPT, BOEING FIELD *IFR* 4 S FSS: SEATTLE on fld
17 H100/13-31(2) (S-100, T-160, TT-290) BL6, 11, 12 S5
F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
Remarks: Rnwy 12-30 (Max-12.5)
Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2
ILS[1] 110.9 I-BFI Apch Brg 128° BC unusable **LOM:** 387/BF
Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.
Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

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§SEATTLE-TACOMA INTL *IFR* 10 S FSS: SEATTLE (DL)
428 H119/16-34(2) S-45, T-145, TT-300) BL4,6,8A,9,14
S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I-SEA[1] Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I-SZI[2] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF contact tower.
Remarks: [1]Automatic apchs not authorized from MM to touchdown. [2]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

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§SPOKANE INTL *IFR* 5 S FSS: SPOKANE
2372 H90/3-21(2) (S-100, T-200, TT-350) BL5, 6, 8A, 9
S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3-21.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3
Tfc Info Ctc Spokane App Con aprx 20 mi out.

WASHINGTON—*Continued*

ILS 109.9 I-GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: VOT: 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW FSS: SEATTLE

WALLA WALLA
§CITY-COUNTY *IFR* 3 NE FSS: WALLA WALLA on fld
1205 H72/2-20(3) BL4, 6, 8A, 9 S5 F5, JP4 DT2
Remarks: Apch end rnwy 25 not visible to twr. 1030′ overrun NE end, 500′ SW end.
Walla Walla Tower[1] 118.5 122.7R
(L) BVOR 111.8/ALW
RBn BH 356/ALW
Remarks: [1]Oper 1400-0200Z Mon-Fri; Clsd wkends, holidays. AAS propided by FSS when twr not in opern.

WENATCHEE (L) BVOR 111.0/EAT FSS: WENATCHEE

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§YAKIMA MUNI *IFR* 2 S FSS: YAKIMA on Fld
1082 H55/9-27(3) (S-50, T-60, TT-100) BL4, 6 S5
F5, JP1, JP4 U2
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I-YKM Apch Brg 269° **LOM:** 284/YK
(H) BVOR 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW FSS: CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF FSS: BLUEFIELD

CHARLESTON
§KANAWHA *IFR* 2 NE FSS: CHARLESTON on Fld
982 H56/5-23(2) (S-150, T-200, TT-44) BL4, 6, 8A, 9, 11
S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:
Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I-CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/CRW 084° 8.1 nm to fld
VHF/DF contact tower.
Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. VOT: 111.0.

CLARKSBURG (L) BVOR 115.1/CKB FSS: MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN FSS: ELKINS
Rng SBMRAZ 245/EN

HENDERSON (L) BVORTAC 111.2/HNN FSS: HUNTINGTON

HUNTINGTON
§TRI-STATE (WALKER LONG FLD) *IFR* 6 SW
FSS: HUNTINGTON on Fld
828 H53/11-29(1) (S-50, T-75, TT-135) BL6, 8A, 9 S5
F4, JP1 U2 DT1
Huntington Tower 120.9 122.5R **Gnd Con** 121.9
Huntington App Con 118.5 122.5R 109.9T
ILS[1] 109.9 I-HTS Apch Brg 114° **LOM:** 287/HT
Huntington RBn BH 323/HTW 199° 2.5 NM to fld.
Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL FSS: ELKINS

WEST VIRGINIA—*Continued*

§MARTINSBURG MUNI ***IFR*** 4 S **FSS:** MARTINSBURG on Fld
556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2
Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Dulles App Con 119.2 126.1
Dulles Dep Con 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby 3/4 mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.
Remarks: [1]Oper 0800–1630 Tues, Thur, Sat and Sun; 0830–2200 Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW **FSS:** MORGANTOWN
RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB **FSS:** PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL **FSS:** CHARLESTON

§WHEELING-OHIO COUNTY ***IFR*** 7 N **FSS:** WHEELING on Fld
1195 H40/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12
F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21
Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9
ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL
Wheeling (L) BVOR 112.2/HLG 220° 5.8 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU
FSS: ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW **FSS:** GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ **FSS:** WAUSAU

CAMP MC COY RBn MHW 412/CAY **FSS:** LA CROSSE

DELLS (L) BVORTAC 110.4/DLL **FSS:** LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU **FSS:** EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD **FSS:** GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG **FSS:** MINNEAPOLIS

GREEN BAY
§AUSTIN STRAUBEL ***IFR*** 7 SW **FSS:** GREEN BAY on Fld
694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT1 **RVR:** Rnwy 6
Remarks: US Customs lndg rts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE
Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9
Green Bay App Con 119.4
VFR ADV Ctc App Con on 119.4.
ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR
Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.
VHF/DF ctc FSS.

JANESVILLE
ROCK COUNTY ***IFR*** 4 SW **FSS:** ROCKFORD (LC EN5639)
808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2
REIL: Rnwy 4
Remarks: Rnwy 22 threshold displaced 6981 NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.
Tower 121.2 122.7R **Gnd Con** 121.9
Rockford App Con 119.6
(L) BVORTAC 113.4/JVL
Remarks: Opers 0500–2300 lcl time. Efctp May 16.

WISCONSIN—*Continued*

LACROSSE (T) BVOR 108.4/LSE **FSS:** LACROSSE
RBn SBH 371/LSE

LAND 'O LAKES RBn MHW 396/LNL **FSS:** WAUSAU
Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR **FSS:** LONE ROCK

MADISON
§TRUAX FIELD ***IFR*** 5 NE **FSS:** MADISON on Fld
859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36
Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.
Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9
Madison App Con 120.1 126.2 109.9T
Madison Dep Con 118.8
VFR ADV Ctc App Con on 120.1.
ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN
Madison RBn MHW 400/MSN 359° 3.9 NM to fld.
Truax (L) BVOR 115.5/TAX at fld.
VHF/DF contact FSS.
Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW **FSS:** GREEN BAY

MILWAUKEE
§GENERAL MITCHELL FLD ***IFR*** 5 S **FSS:** MILWAUKEE on Fld
722 H99/1–19(4) (S–200, T–200, TT–400) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwy 1
Remarks: Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N.
Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 120.0
Radar Services: (BCN)
Milwaukee App Con 126.5 126.2 123.8 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19, 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1323
ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Milwaukee RBn H–SAB 242●/MKE 352° 1.4 NM to fld.
VHF/DF contact tower.
Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. **VOT:** 109.0

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§TIMMERMAN FIELD ***IFR*** 5 NW **FSS:** MILWAUKEE (DL)
745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior premission except emgcy.
Tower[1] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[2] 126.2 123.8[2] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6

WISCONSIN—*Continued*

Tfc Info Ctc Milwaukee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200–0400Z. [2]360–179 [3]180–359.

OSHKOSH
§WINNEBAGO CO *IFR* 1 SW FSS: GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC FSS: MILWAUKEE

REWEY (L) BVOR 115.8/RWY FSS: LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI FSS: WAUSAU

STEVENS POINT (L) BVOR 110.6/STE FSS: WAUSAU

TIMMERMAN (L) BVOR 108.6/MWC FSS: MILWAUKEE

TRUAX (L) BVOR 115.5/TAX FSS: MADISON

VOLK (L) VOR 109.0/VOK FSS: LA CROSSE
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW FSS: WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI FSS: ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY FSS: WORLAND

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§CASPER AIR TERMINAL *IFR* 7 NW FSS: CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2
Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVOR 112.2/CKW FSS: RAWLINS
Remarks: To be BVORTAC June 23.

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§CHEYENNE MUNI *IFR* 1 N FSS: CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T **Gnd Con** 121.9
VFR Adv Ctc App Con on 118.7 aprx 25 mi out.
App Con 119.9 122.5R 113.1T
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1/CYS 196X 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI FSS: SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW FSS: CASPER

DUNOIR (L) BVOR 113.4/DNW FSS: WORLAND

WYOMING—*Continued*

FORT BRIDGER (L) BVORTAC 108.6/FBR FSS: ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC FSS: IDAHO FALLS
Remarks: To be comsnd May 26.

LARAMIE (L) BVORTAC 117.6/LAR FSS: LARAMIE

MEDICINE BOW (L) BVOR 114.1/MBW FSS: LARAMIE

RIVERTON (L) BVOR 108.8/RIW FSS: WORLAND

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§ROCK SPRINGS MUNI *IFR* 7E FSS: ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290/RKS

SHERIDAN (L) BVORTAC 115.3/SHR FSS: SHERIDAN

SINCLAIR RBn SBH 368/SIR FSS: RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE FSS: SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ FSS: SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W FSS: SAN JUAN
11 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100–0200Z

§PUERTO RICO INTL 6E FSS: SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9
ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391.SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP FSS: SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX FSS: ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W FSS: SAN JUAN
11 H42/9–27(1) (S–30, T–45, TT–70) BL5 F4
Remarks: U.S. Customs lndg rgts.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE SECTION II DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)	VHF (High)
119.8 120.1 124.5 124.6	132.9 133.0 132.65 133.05
124.7 125.2 125.4 125.9	133.8 133.45 133.55 133.65
126.0 126.4 126.9 127.2	133.85 134.35 134.45 134.75
132.3 134.5	135.05 135.3 135.7 135.8
	135.15

ATLANTA

VHF (Low)	VHF (High)
118.9 120.0 120.3 120.8	132.25 132.75 132.85 132.9
120.9 121.2 123.8 124.1	133.1 133.35 133.7 134.45
124.4 125.2 125.5 126.4	134.55 134.6 135.15 135.75
126.6 126.8 127.55 127.8	
127.95 128.3 128.6 128.65	
128.75 135.6	

BOSTON

VHF (Low)	VHF (High)
119.0 121.0 124.0 124.2	127.8 128.1 132.5 132.65
124.9 125.8 127.0 127.1	132.9 133.5 134.3 134.7
127.3 127.6 127.8 127.9	134.45 134.95 134.85
128.1 128.2 132.4 132.5	
132.65 135.7	

CHICAGO

VHF (Low)	VHF (High)
119.4 119.6 120.2 120.4	124.5 127.95 132.15 128.65
120.6 120.8 121.4 123.9	132.4 132.5 132.75 133.1
124.0 124.1 124.4 124.8	133.35 133.5 133.7 133.9
125.1 125.2 125.6 126.4	133.95 134.85 135.1 135.35
126.6 126.8 127.0 127.1	135.55
127.5 127.6 127.7 127.8	
128.0 128.05 128.2 128.4	
128.5 128.7 132.2 132.3	

CLEVELAND

VHF (Low)	VHF (High)
118.8 118.9 119.6 119.8	132.25 132.45 133.25 133.3
120.2 120.3 120.4 120.6	133.95 134.25 134.65
120.8 121.2 121.4 123.9	
124.2 124.3 124.4 124.6	
125.0 125.1 125.2 125.3	
125.6 125.7 126.1 126.4	
126.8 127.15 127.5 127.45	
127.65 127.9 128.35 128.45	
128.6 134.3	

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)	VHF (High)
119.8 124.1 125.0 125.6	127.55 128.2 132.1 132.05
125.8 126.0 127.2 127.8	132.15 132.85 133.15 127.3
132.5 132.7 133.0 133.4	133.3 133.75 133.85 134.4
134.6	134.65 134.7 135.5 135.15
	135.65

FORT WORTH

VHF (Low)	VHF (High)
119.4 124.4 124.6 124.7	132.2 132.35 132.45 132.55
124.8 125.0 125.5 125.6	132.75 133.5 133.7 133.25
126.0 126.6 127.3 127.7	133.35 133.55 133.95 134.25
128.1 128.3 133.1 133.3	134.55 134.85 135.1 135.4
133.9 135.0 135.6	135.8 135.35 135.75

GREAT FALLS

VHF (Low)	VHF (High)
120.4 124.1 125.0 125.1	118.9 125.0 132.25 132.65
125.5 125.8 125.9 126.4	132.95 133.4 133.55 134.55
126.5 127.1 127.6	135.25 135.55

HOUSTON

VHF (Low)	VHF (High)
118.2 118.9 120.6 120.7	127.8 132.4 132.5 132.6
121.0 121.2 124.0 124.1	132.7 132.8 132.15 132.95
124.2 125.1 125.8 125.9	133.05 133.4 133.65 133.75
126.0 126.4 126.6 126.8	133.85 134.8 134.35 134.95
126.9 126.95 127.05 127.2	135.2
128.0 128.1 128.2 128.3	
128.4 132.5 132.8 132.9	
134.7	

INDIANAPOLIS

VHF (Low)	VHF (High)
118.2 124.2 124.4 124.8	128.25 132.7 133.05 133.45
126.0 127.0 127.1 127.3	133.75 134.35 134.75 134.9
127.4 128.3 128.4 128.55	134.95
128.8 132.2 132.6 135.1	
135.7 135.8	

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.75
126.9	127.2	128.1	128.5	134.85	135.4	135.05	135.25
132.3	132.5	132.8	133.4	135.55	135.65		
133.5	134.3	134.7					

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.30	135.4			
125.5	125.9	127.4	127.5				
127.6	127.7	127.8	128.1				
128.4	128.6	132.10	134.6				
134.9							

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	125.8	127.9	128.3	128.6	132.15
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.8
127.1	127.3	127.4	128.2	134.55	134.75	134.95	135.25
128.4	128.8	132.3	132.5	135.45			
132.6	133.4	133.8	134.2				
134.4	134.6	135.05					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	127.1	127.2	134.25	134.45	134.9	135.3
127.25	127.3	127.4	127.6	135.5	135.7		
127.75	128.0	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	127.7	132.7	132.15
124.4	124.5	124.7	125.4	132.95	133.65	133.8	134.35
125.6	125.8	126.0	126.4	134.5	134.95	135.5	
127.0	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.5	132.15	133.4	133.55	133.65
125.6	125.9	126.0	126.1	133.85	134.25	134.45	134.8
127.1	127.2	127.3	127.8	134.55	135.45	135.7	
127.9	128.6	132.1	132.6				
134.6	134.8						

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.1	132.1	132.3	132.95	132.75
124.2	124.8	125.1	125.3	133.8	133.9	134.8	135.45
125.4	125.5	125.6	126.0	135.55	135.75		
126.4	126.6	126.8	126.9				
127.95	128.2	128.3	128.5				
128.65	128.7	132.6	134.6				
135.1	135.6	135.65					

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	128.15	132.05	132.8	132.65
121.2	123.8	123.9	124.2	132.85	132.95	133.3	133.7
124.6	125.5	125.7	125.9	133.75	134.35	134.7	
126.5	126.8	127.05	127.3				
127.2	127.5	127.7	127.8				
128.7							

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.40	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	127.40	128.4	134.25	134.85	135.7	
133.1							

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.3	125.1	125.3	125.6	133.0	133.5	133.65	133.9
125.8	126.0	128.1	132.1	134.65	134.75	134.95	
132.6	133.0	133.5					

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.5	133.15	133.55	133.65	133.85
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
134.3	135.0	135.4					

SAN JUAN

VHF (Low)	VHF (High)			
	119.9	120.3	121.5	125.0

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 2 ARRIVALS)

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ **Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.**

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed.

ALABAMA

Location and Identifier			Area Code	Telephone
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595-6151▬
		WB	(205)	595-2101 ★
Dothan DHN	DF	FSS	(205)	794-6683
Huntsville HSV		FSS	(205)	536-1254
		WB	(205)	881-2761 ◆
Mobile MOB (Bates)		FSS	(205)	342-1177
		WB	(205)	342-2762 ◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269-4368
		WB	(205)	263-0621 ◆
Muscle Shoals MSL		FSS	(205)	383-6541
		WB	(205)	383-6657
Tuscaloosa TCL		FSS	(205)	758-3628

ARIZONA

Location and Identifier			Area Code	Telephone
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4-5353
Flagstaff		WB	(602)	774-1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261-4295▬
		WB	(602)	261-3868 ◆
Prescott PRC	DF	FSS	(602)	HI 5-2160
Tucson TUS	DF	FSS	(602)	294-1463▬
Winslow		WB	(602)	289-3592
Yuma YUM		FSS	(602)	725-2601▬

ARKANSAS

Location and Identifier			Area Code	Telephone
El Dorado ELD (Goodwin)		FSS	(501)	UN 3-9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2-8277

ARKANSAS (Con't)

Location and Identifier			Area Code	Telephone
Ft. Smith FSM		FSS	(501)	MI 6-1791
		WB	(501)	646-5731
Harrison HRO		FSS	(501)	EM 5-3433
Little Rock		WB	(501)	374-1546 ◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5-0652
Texarkana TXK		FSS	(501)	774-6221
Walnut Ridge ARG		FSS	(501)	TU 6-6671

CALIFORNIA

Location and Identifier			Area Code	Telephone
Arcata ACV	DF	FSS	(707)	TE 9-2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399-1787▬ 399-3815
Bishop		WB	(714)	873-3213 (0545-1915)
Blue Canyon		WB	Emigrant Gap	2721 (0545-1415)
Blythe BLH	DF	FSS	(714)	948-6638
Burbank		WB	(213)	848-6206 ◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4-2514
Daggett DAG		FSS	(714)	CL4-2223
Eureka		WB	(707)	442-2171 ◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251-8269▬
Imperial IPL		FSS	(714)	355-1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429-0337 ◆
Los Angeles LAX (International)		FSS	(213)	SP 6-2727
		WB	(213)	670-2223
Marysville MYV (Yuba Co.)		FSS	(916)	742-1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459-3003
Mt Shasta		WB	(916)	926-2227 (0730-1600)
Needles EED		FSS	(714)	326-3511

CALIFORNIA (Con't.)

Location and Identifier			Area Code	Telephone
Oakland OAK (Metropolitan-International)		FSS	(415)	638-5714▬
		WB	(415)	832-5418★
				(Via San Francisco)
Ontario ONT		FSS	(714)	983-2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947-3502
Paso Robles PRB	DF	FSS	(805)	238-2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527-0242▬
Sacramento SAC	DF	FSS	(916)	428-6500▬
Salinas SNS		FSS	(408)	422-4723
San Diego SAN (Lindbergh)		FSS	(714)	296-3181▬
San Francisco		WB	(415)	589-6711★
		WB	(415)	761-2052◆
(So. San Francisco)		WB	(415)	588-3012
Santa Barbara SBA		FSS	(805)	967-2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925-3525
				(0600-2200)
Stockton SCK		FSS	(209)	466-3684▬
Thermal TRM		FSS	(714)	EX 9-5155
Ukiah UKI		FSS	(707)	462-6136

COLORADO

Location and Identifier			Area Code	Telephone
Akron AKO		FSS	(303)	345-2271
Alamosa		WB	(303)	589-2547
				(0400-2000)
Colorado Springs		WB	(303)	632-0535◆
Denver DEN (Stapleton Intl)		FSS	(303)	297-3277▬
		WB	(303)	388-3653★
Eagle EGE		FSS	(303)	328-2125
Grand Junction GJT (Walker Field)		FSS	(303)	CH 2-1801▬
La Junta LHX		FSS	(303)	DU 4-4311
Pueblo PUB (Memorial)		FSS	(303)	948-3301
		WB	(303)	948-3376◆
Trinidad TAD	DF	FSS	(303)	846-2623

CONNECTICUT

Location and Identifier			Area Code	Telephone
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247-2855◆
New Haven		WB	(203)	469-2141◆
				(0630-1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3-5590

DELAWARE

Location and Identifier			Area Code	Telephone
Wilmington		WB	(302)	328-2755◆

DISTRICT OF COLUMBIA

Location and Identifier			Area Code	Telephone
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661-8526◆
Washington National DCA		FSS	(202)	DI 7-1442
		WB	(202)	628-0491▬
		WB	(202)	347-8016★

▬This line answered by FSS or WB. Caller can be switched to either office upon request.

FLORIDA

Location and Identifier			Area Code	Telephone
Apalachicola		WB	(305)	653-3171
Crestview CEW	DF	FSS	(305)	MU 2-2795
Daytona Beach DAB		FSS	(904)	255-4767
		WB	(904)	252-5949
Ft. Myers FMY (Page Field)		FSS	(813)	936-1857
		WB	(813)	WE 6-2057
				(0600-1400 Apr-Oct)
				(0600-2200 Nov-Mar)
Gainesville GNV		FSS	(904)	376-8521
Jacksonville JAX (Imeson)		FSS	(904)	355-3601▬
		WB	(904)	353-8605★
Key West EYW (International)		FSS	(305)	CY 6-2042
		WB	(305)	CY 6-2011
Lakeland		WB	(813)	682-4221
				(0600-2400 Nov 15-Mar 15)
				(0800-1700 Mar 16-Nov 14)
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3-6151
Miami MIA		IFSS	(305)	633-1461▬
		WB	(305)	666-2543★
Orlando ORL (Herndon)		FSS	(305)	841-5101
Pensacola PNS		FSS	(305)	HE 8-4390
St Petersburg via Tampa		WB	(813)	894-3086★
Tallahassee TLH	DF	FSS	(305)	224-7101
		WB	(305)	222-3335
Tampa TPA (Tampa International)		FSS	(813)	877-7503
		WB	(813)	872-9964★
		WB	(813)	877-1677◆
Vero Beach VBR	DF	FSS	(305)	562-2167
			(305)	464-1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832-5697★
		WB	(305)	683-3032◆

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

GEORGIA

Location and Identifier		Area Code	Telephone
Albany ABY	FSS	(912)	435–6201
Alma AMG	FSS	(912)	632–4422
			(0600–2200 EST)
Athens	WB	(404)	LI 3–3891◆
Atlanta FTY (Fulton Co.) DF	FSS	(404)	344–1551
	WB	(404)	767–0244★
	WB	(404)	767–3187◆
Augusta AGS (Bush Fld)	FSS	(404)	798–5164
	WB	(404)	798–6821◆
Brunswick SSI (Malcom McKinnon)	FSS	(912)	638–8641
Columbus CSG (Muscogee County)	FSS	(404)	322–6458
	WB	(404)	322–1793◆
			(0630–2045)
Macon MCN (Muni)	FSS	(912)	788–5064
	WB	(912)	788–1100◆
Rome	WB	(404)	232–6801
			(0700–1300 Mon–Fri)
			(0700–1100 Sat)
Savannah SAV (Travis)	FSS	(912)	234–2257/8▬
	WB	(912)	233–0272
Valdosta VLD	FSS	(912)	CH 4–2361

IDAHO

Location and Identifier		Area Code	Telephone
Boise BOI (Air Terminal)	FSS	(208)	343–2525▬
Burley BYI	FSS	(208)	678–7451
Idaho Falls IDA (Fanning Field) DF	FSS	(208)	522–9024
Lewiston	WB	(208)	743–3841
Malad City MLD	FSS	(208)	766–2971
Mullan Pass MLP	FSS	(208)	PR 5–2001
Pocatello PIH	FSS	(208)	232–2032
	WB	(208)	233–0143◆

ILLINOIS

Location and Identifier		Area Code	Telephone
Champaign CMI (University of Ill.)	FSS	(217)	822–5211
Chicago	WB	(312)	686–2155◆
	WB	(312)	667–5055★
Joliet JOT DF	FSS	(815)	725–3144
	FSS	(312)	242–3111
Moline MLI (Quad City)	FSS	(309)	762–2412
	WB	(309)	762–1726
Peoria PIA (Greater Peoria)	FSS	(309)	697–0751
	WB	(309)	637–6422◆
Quincy UIN (Baldwin)	FSS	(217)	885–3251
Rockford RFD (Greater Rockford)	FSS	(815)	965–6758
	WB	(815)	963–5816◆
			(0515–2115)
Springfield SPI (Capital)	FSS	(217)	544–9012
	WB	(217)	523–5812◆
Vandalia VLA	FSS	(618)	283–0478

INDIANA

Location and Identifier		Area Code	Telephone
Evansville EVV (Dress Memorial)	FSS	(812)	422–8120
	WB	(812)	424–9613◆
Ft. Wayne FWA (Baer Field)	FSS	(219)	747–3139
	WB	(219)	747–2577◆
Indianapolis IND (Weir-Cook) DF	FSS	(317)	244–3316▬
	WB	(317)	244–2411★
Layfayette LAF (Purdue University)	FSS	(317)	743–1802/3
South Bend SBN (St. Joseph Co.) DF	FSS	(219)	CE 3–4433
	WB	(219)	234–3937◆
Terre Haute HUF (Hulman)	FSS		C–2704

IOWA

Location and Identifier		Area Code	Telephone
Burlington BRL	FSS	(319)	752–4734
Cedar Rapids CID	FSS	(319)	364–3041
Davenport (via Moline Ill.)	WB	(319)	326–2677
Des Moines DSM	FSS	(515)	285–5691
	WB	(515)	284–4493◆
Dubuque	WB	(319)	582–3171
			(0545–2105)
Mason City MCW	FSS	(515)	GA 3–7512
Ottumwa OTM	FSS	(515)	MU 2–1846
Sioux City SUX	FSS	(712)	258–1060
	WB	(712)	252–0244
			ext 210
Waterloo ALO	FSS	(319)	AD 3–5528
	WB	(319)	234–1602◆

KANSAS

Location and Identifier		Area Code	Telephone
Concordia	WB	(913)	243–3141
Chanute CNU	FSS	(316)	HE 1–4450
Dodge City DDC	FSS	(316)	HU 3–3441
	WB	(316)	483–3311
Emporia EMP	FSS	(316)	DI 2–7475
Garden City GCK (New Municipal)	FSS	(316)	BR 6–2531
Goodland GLD	FSS	(913)	TW 9–7154
	WB	(913)	899–2360◆
Hill City HLC	FSS	(913)	674–5642
Hutchinson HUT	FSS	(316)	2–4851
Manhattan MHK	FSS	(913)	PR 8–2162
			(0700–1900)
			(Other hrs. Salina)
			LC PR 6–9751
Russell RSL	FSS	(913)	483–2312
Salina SLN	FSS	(913)	TA 5–5309
Topeka TOP (Phillip Billard)	FSS	(913)	232–5478
	WB	(913)	CE 4–8659◆
Wichita ICT	FSS	(316)	942–2261/2
	WB	(316)	942–3284★
	WB	(316)	943–1063◆

Location and Identifier		Area Code	Telephone
KENTUCKY			
Bowling Green BWG (Warren County)	FSS	(502)	843-4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381-8195 ◆
Lexington LEX (Blue Grass)	FSS	(606)	254-5143
	WB	(606)	255-1774 ◆
London LOZ	FSS	(606)	864-4410
Louisville LOU (Bowman)	FSS	(502)	451-5344
	WB	(502)	368-2188 ◆
Paducah FUK (Barkley)	FSS	(502)	442-1551
LOUISIANA			
Alexandria AEX DF	FSS	(318)	445-3663 ▬
Baton Rouge BTR (Ryan)	FSS	(504)	EL 5-2763
	WB	(504)	357-9943 ◆
Lafayette LFT	FSS		CE 5-3752
	WB		234-1220 ◆
Lake Charles LCH	FSS	(318)	477-1784 ▬
	WB	(318)	477-5227 ◆
Monroe MLU	FSS	(318)	322-3157
New Orleans MSY	FSS	(504)	943-5535
	WB	(504)	523-4311 ★
	WB	(504)	729-2520 ◆
Shreveport SHV (Greater Shreveport)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141 ◆
MAINE			
Augusta AUG (State)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton HUL (Memorial International) DF	FSS	(207)	532-2475
Millinocket MLT	FSS	(207)	723-8343
Old Town OLD	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland PWM	FSS	(207)	SP 5-0602
	WB	(207)	775-3071 ◆
MARYLAND			
Baltimore	WB	(301)	761-1333 ◆
	WB	(301)	766-0757 ★
Salisbury SHV (Salisbury-Wicomico)	FSS	(301)	742-7324
MASSACHUSETTS			
Boston BOS (Logan)	FSS	(617)	LO 7-0099 ▬
	FSS	(617)	LO 7-0015 ▬
	WB	(617)	569-1773 ★
Nantucket ACK DF	FSS	(617)	228-0815 ▬
	WB	(617)	228-0971
Worcester ORH	FSS	(617)	PL 5-6083
	WB	(617)	798-2124 ◆ (0600-2200)

Location and Identifier		Area Code	Telephone
MICHIGAN			
Alpena	WB	(517)	354-8733 ◆ (0645-1915)
Battle Creek BTL (Kellogg)	FSS	(616)	·2-7878
Detroit DTW (Metropolitan Wayne)	FSS	(313)	PA 2-8790
	WB	(313)	274-5310 ★
	WB	(313)	278-7340 ◆
Detroit (Willow Run)	WB	(313)	482-5001 ◆
Flint FNT (Bishop)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987 ◆
Grand Rapids GRR (Kent County)	FSS	(616)	949-4090
	WB	(616)	949-4251 ◆
Houghton HTL (Houghton County)	FSS	(906)	482-0380
Houghton Lake (Roscommon County)	WB	(517)	366-5392
Jackson JXN (Reynolds Mun.)	FSS	(517)	ST 4-9640
Lansing LAN (Capital City)	FSS	(517)	482-9237
	WB	(517)	489-2415 ◆
Marquette MQT	FSS	(906)	GR 5-4197
	WB	(906)	226-8642 ◆ (0500-2100)
Muskegon MKG (Muskegon County)	FSS	(616)	798-1222
	WB	(616)	798-3048
Pellston PLN (Emmet County)	FSS	(616)	LE 9-8401
Saginaw MBS (Tri City) DF	FSS	(517)	OX 5-6621
Saulte Ste Marie SSM	FSS	(906)	632-8271
	WB	(906)	632-9461
Traverse City TVC	FSS	(616)	947-5056
Ypsilanti	WB	(313)	482-5001
MINNESOTA			
Alexandria AXN	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982 ◆
Hibbing HIB (Chisholm-Hibbing)	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis MSP St. Paul Intl	FSS	(612)	PA 9-9386
(Wold-Chamberlain) DF	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429 ◆
	WB	(612)	729-9339 ★
Redwood Falls RWF	FSS	(507)	637-8530
Rochester RST	FSS	(507)	289-1579 ▬
St. Cloud	WB	(612)	251-3213 (0400-2200)
St. Paul (See: Minneapolis)			
MISSISSIPPI			
Greenwood GRW	FSS	(601)	GL 3-2631
Jackson JAN (Thompson Field)	FSS	(601)	939-5212
	WB	(601)	939-5881 ◆

MISSISSIPPI (Con't.)

Location and Identifier		Area Code	Telephone
McComb MCB (Pike County)	FSS	(601)	684-7070
Meridian MEI (Key Field)	FSS	(601)	482-1243
	WB	(601)	483-3725◆
Vicksburg	WB	(601)	636-1193
			(0630-1530 Mon-Fri)
			(0630-1130 Sat, Holidays)
			(clsd Sunday)

MISSOURI

Location and Identifier		Area Code	Telephone
Cape Girardeau GGI	FSS	(314)	ED 4-2803
Columbia CBI	FSS	(314)	449-1136/7
	WB	(314)	443-4332
Joplin JLN	FSS	(417)	MA 3-6868
Kansas City MKC	FSS	(816)	GR 1-5484▬
	WB	(816)	471-2131★
Kirksville IRK	FSS	(816)	MO 5-4132
St. Joseph STJ (Rosecrans Memorial)	FSS	(816)	BR 9-2394
St. Louis STL (Lambert)	FSS	(314)	PE 1-0900
	WB	(314)	731-3001◆
	WB	(314)	PE 1-3004★
	WB	(314)	848-3303★
			(Hazlewood)
Springfield SGF DF	FSS	(417)	862-3588▬
Vichy VIH (Rolla National)	FSS	(314)	AX 9-3677

MONTANA

Location and Identifier		Area Code	Telephone
Billings BIL (Logan Field) DF	FSS	(406)	259-4545▬
Bozeman BZN (Gallatin Field)	FSS	(406)	586-6520
Butte BTM (Silver Bow)	FSS	(406)	723-3004
Cut Bank CTB	FSS	(406)	938-4522
Dillon DLN	FSS	(406)	683-5651
Glasgow Intl	WB	(406)	228-8395
			(0300-2400)
Great Falls GTF (International)	FSS	(406)	452-6495
	WB	(406)	453-3512◆
Havre	WB	(406)	265-6424
			(0430-1315)
Helena HLN	FSS	(406)	442-9902
	WB	(406)	442-8260
Kalispell	WB	(406)	756-4829
Lewistown LWT	FSS	(406)	538-3639
Livingston LVM (Mission Field)	FSS	(406)	222-2411
Miles City MLS DF	FSS	(406)	232-1503
Missoula MSO (Missoula City)	FSS	(406)	542-2230
	WB	(406)	543-7996◆

NEBRASKA

Location and Identifier		Area Code	Telephone
Chadron CDR	FSS	(308)	HE 2-3153
Grand Island GRI	FSS	(308)	382-5196
	WB	(308)	384-1907
Imperial IML	FSS	(308)	TU 2-4887
Lincoln LNK (Mun/AFB)	FSS	(402)	477-3929▬
Norfolk	WB	(402)	371-3386
			(0530-2130)
North Plate LBF (Lee Bird)	FSS	(308)	LE 2-4034▬
Omaha OMA (Eppley)	FSS	(402)	341-6178▬
	WB	(402)	342-3603★
Scottsbluff BFF	FSS	(308)	635-2615
	WB	(308)	632-6822
Sidney SNY	FSS	(308)	254-3130
Valentine	WB	(402)	376-3442

NEVADA

Location and Identifier		Area Code	Telephone
Elko EKO	FSS	(702)	738-6506▬
Ely ELY (Yelland Filed)	FSS	(702)	264-2045
	WB	(702)	264-2403
Las Vegas LAS (McCarran)	FSS	(702)	736-1573/4▬
Lovelock LOL (Derby Field) DF	FSS	(702)	CR 3-2448
Reno RNO	FSS	(702)	784-5414
	WB	(702)	784-5402◆
Tonopah TPH (Nye County)	FSS	(702)	482-6421
Winnemucca	WB	(702)	623-2203

NEW HAMPSHIRE

Location and Identifier		Area Code	Telephone
Concord CON	FSS	(603)	224-7474
	WB	(603)	225-5191
			(0500-1900)
Lebanon LEB (Regional)	FSS	(603)	298-8360

NEW JERSEY

Location and Identifier		Area Code	Telephone
Atlantic City	WB	(609)	641-4327◆
Millville MIV	FSS	(609)	825-1173
Newark	WB	(201)	624-8118
			624-7272★
			(Via New York)
Teterboro TEB	FSS	(201)	288-9092

NEW MEXICO

Location and Identifier		Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)	FSS	(505)	243-7831▬
	WB	(505)	242-2661★
Carlsbad CNM	FSS	(505)	TU 5-2042
Clayton	WB	(505)	374-9511
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)

NEW MEXICO (Con't.)

Location and Identifier		Area Code	Telepone
Deming DMN	FSS	(505)	546-2726
Farmington FMN DF	FSS	(505)	DA 5-9271
Grants GNT	FSS	(505)	AT 7-3011
Hobbs HOB (Lea County)	FSS	(505)	EX 3-3222
Las Vegas LVS	FSS	(505)	GA 5-7411
Raton	WB	(505)	445-3891
			(0545-1225)
Roswell ROW	FSS	(505)	622-6780▬
Santa Fe SAF	FSS	(505)	YU 3-6581
Silver City	WB	(505)	538-9023
		(0530-2000 Mon-Fri)	
Truth or Consequences TCS DF	FSS	(505)	894-3277
Tucumcari TCC	FSS	(505)	461-2900
Zuni ZUN	FSS	(505)	782-3770

NEW YORK

Location and Identifier		Area Code	Telepone
Albany ALB (Albany County)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173◆
Binghamton BGM (Broome County)	FSS	(607)	RA 9-6145
	WB	(607)	797-0784◆
Buffalo BUF (Greater Buffalo)	FSS	(716)	NF 2-6083▬
	WB	(716)	632-5042★
Elmira ELM (Chemung County)	FSS	(607)	RE 9-2471
Glens Falls GFL (Warren County)	FSS	(518)	RX 3-2593
Islip ISP (Long Island MacArthur) DF	FSS	(516)	JU 8-1061
(New York)	FSS	(914)	723-4330
	FSS	(212)	995-8657
Massena MSS	FSS	(315)	RO 9-2033
New York JFK (John F. Kennedy Intl)	IFSS	(212)	995-8659
	WB	(212)	656-7474★
New York (John F. Kennedy Intl and LaGuardia)	WB	(212)	995-9151◆
Poughkeepsie POU (Dutchess County)	FSS	(914)	462-3400
Rochester ROC (Monroe County)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391◆
Syracuse SYR (Hancock)	FSS	(315)	GL 4-2479
	WB	(315)	454-1214◆
Utica UCA (Oneida)	FSS	(315)	RE 6-9023
Watertown ART	FSS	(315)	NE 9-3321

NORTH CAROLINA

Location and Identifier		Area Code	Telepone
Asheville AVL	FSS	(704)	684-4401
	WB	(704)	684-6906◆
Cape Hatteras	WB	(919)	995-2321
Charlotte	WB	(704)	399-6000◆
Durham	WB	(919)	596-2326
Elizabeth City ECG (Coast Guard Air Station)	FSS	(919)	338-3808
Fayetteville FAY (Grannis Field)	FSS	(919)	483-7904
Greensboro	WB	(919)	299-9499◆
Hickory HKY	FSS	(704)	DA 7-8281

NORTH CAROLINA (Con't.)

Location and Identifier		Area Code	Telephone
High Point	WB	(919)	883-1927
	(Answered in Greensboro)		
New Bern EWN (Simmons-Nott)	FSS	(919)	ME 7-2080
Raleigh-Durham RDN	FSS	(919)	787-4289
	WB	(919)	787-4092◆
			596-2446
		(Durham Exchange)	
			275-6341
		(Greensboro Exchange)	
Rocky Mount RMT	FSS	(919)	446-6637
Wilmington ILM (New Hanover County)	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	725-1731
	WB	(919)	724-2208◆

NORTH DAKOTA

Location and Identifier		Area Code	Telephone
Bismarck BIS	FSS	(701)	CA 3-8790
	WB	(701)	223-0920◆
Dickinson DIK	FSS	(701)	224-2989
Fargo FAR (Hector)	FSS	(701)	AD 5-8894
	WB	(701)	232-1584◆
Grand Forks GFK (International) DF	FSS	(701)	772-7201
Jamestown JMS	FSS	(701)	CL 2-4350
Minot MOT (International)	FSS	(701)	833-8112
Williston	WB	(701)	572-3198◆
			(0445-2045)

OHIO

Location and Identifier		Area Code	Telephone
Akron ACO	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246◆
Canton	WB	(216)	499-7933◆
Cincinnati CVG (Lunken)	FSS	(513)	321-1434
	WB	(513)	381-2300★
	WB	(513)	381-6706◆
(Greater Cincinnati)	WB	(513)	684-2129◆
	WB	(606)	283-3696◆
Cleveland CLE (Hopkins)	FSS	(216)	267-0149▬
	WB	(216)	267-3410★
Columbus CMH	FSS	(614)	237-8478▬
Dayton DAY	FSS	(513)	898-4639
	WB	(513)	898-4620◆
		(Vandalia Exchange)	
Findlay FDY	FSS	(419)	GA 2-3237
Mansfield MFD	FSS	(419)	524-5323
	WB	(419)	522-7070
			(0600-1800)
Toledo TOL (Express)	FSS	(419)	242-4171
	WB	(419)	259-6454◆
Youngstown YNG	FSS	(216)	539-5121
	FSS	(216)	856-4806
	WB	(216)	545-2447
Zanesville ZZV	FSS	(614)	452-8611

OKLAHOMA

Location and Identifier			Area Code	Telephone
Ardmore ADM		FSS	(405)	CA 3–6772
		FSS	(405)	DU 9–5441
Gage GAG	DF	FSS	(405)	923–2601
Hobart HBR		FSS	(405)	GE 6–4234
McAlester MLC	DF	FSS	(918)	GA 3–4091
Oklahoma City OKC (Will Rogers)		FSS	(405)	SU 9–7452
		WB	(405)	685–4433 ★
		WB	(405)	685–6350 ◆
(Answered personally after PATWAS message.)				
Ponca City PNC		FSS	(405)	RO 5–5485
Tulsa TUL		FSS	(918)	TE 8–3316
		WB	(918)	835–2364 ★

OREGON

Location and Identifier			Area Code	Telephone
Astoria		WB	(503)	861–2722
Baker BKE		FSS	(503)	523–2961
Eugene EUG (Mahlon-Sweet)		FSS	(503)	343–7738
		WB	(503)	344–0141 ◆
Klamath Falls LMT (Kingsley Field)		FSS	(503)	TU 4–8223
		WB	(503)	882–5060 (0800–1600)
Meacham		WB	(503)	Meacham 2 (0700–1500)
Medford MFR		FSS	(503)	772–6523
		WB	(503)	773–1525 ◆
North Bend OTH		FSS	(503)	756–4916
Pendleton PDT		FSS	(503)	276–1761
		WB	(503)	276–1852
Portland PDX (International)		FSS	(503)	AT 2–7293 ▬
		WB	(503)	282–2285 ★
Redmond RDM (Roberts Field)	DF	FSS	(503)	548–2522
Salem		WB	(503)	363–6151
The Dalles DLS		FSS	(509)	PO 7–1187

PENNSYLVANIA

Location and Identifier			Area Code	Telephone
Allentown ABE (Bethlehem-Easton)		FSS	(215)	264–4539
		WB	(215)	264–2241
Altoona AOO (Blair)		FSS	(814)	793–3113
Bradford BFD (Bradford-McKean)		FSS	(814)	362–8860
DuBois DUG		FSS	(814)	328–2231
Erie ERI (Port Erie)		FSS	(814)	833–1345
		WB	(814)	833–1991 ◆
Harrisburg HAR (Harrisburg-York State)		FSS	(717)	233–5987
		WB	(717)	233–7315 ◆
Philadelphia PNE (North Philadelphia)		FSS	(215)	OR 3–8020
		WB	(215)	726–7511 ◆
		WB	(215)	726–3503 ★ (0600–2300)
Philipsburg PSB (Mid-State)	DF	FSS	(814)	342–0830
Pittsburgh AGC (Allegheny)		FSS	(412)	461–8250
		WB	(412)	462–5585 ★
		WB	(412)	462–5586 ★
Pittsburgh (Greater Pittsburgh)		WB	(412)	771–2855 ◆
Reading (General Spaatz Fld)		WB	(215)	376–4103 ◆ (0800–0900 Sun, 0700–noon Sat) (0700–1630 Mon–Fri)
Scranton		WB	(717)	457–5650 ◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)		FSS	(717)	457–9600
		WB	(717)	457–5650 ◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)		FSS	(717)	368–8547
		WB	(717)	368–1866 ◆

RHODE ISLAND

Location and Identifier			Area Code	Telephone
Providence PVD (Green)		FSS	(401)	RE 7–5300
		WB	(401)	737–0051 ◆

SOUTH CAROLINA

Location and Identifier			Area Code	Telephone
Anderson AND		FSS	(803)	225–7501
		FSS	(803)	225–5031 ◆
Charleston CHS		FSS	(803)	747–5778 ★
		WB	(803)	744–8281 ◆
Columbia		WB	(803)	794–4054 ◆
Crescent Beach MBC (Myrtle Beach)		FSS	(803)	448–7187 (0800–2000) (Other hrs Florence)
Florence FLO		FSS	(803)	662–8197
Greer GSP (Greenville)	DF	FSS	(803)	Greenville 239–3738 ▬ Spartanburg 585–5470

SOUTH DAKOTA

Location and Identifier			Area Code	Telephone
Aberdeen ABR		FSS	(605)	225–5264
		WB	(605)	225–7157 ◆
Huron HON (W. W. Howes)		FSS	(605)	352–3806 ▬
Pierre PIR		FSS	(605)	224–5894
Rapid City RAP	DF	FSS	(605)	FI 2–2280
		WB	(605)	342–1160 (0200–2300 daily)

SOUTH DAKOTA (Con't)

Location and Identifier		Area Code	Telephone
Sioux Falls FSD (Joe Foss Fld)	FSS	(605)	ED 8–4841
	WB	(605)	338–1441◆
Watertown ATY	FSS	(605)	TU 6–4581

TENNESSEE

Location and Identifier		Area Code	Telephone
Blountville	WB	(615)	323–8752◆
Bristol	WB	(615)	323–8242◆
Chattanooga	WB	(615)	892–3747◆
Crossville CSV (Crossville-Cumberland) DF	FSS	(615)	484–6711
Dyersburg DYR	FSS	(901)	285–4842
			(0600–2200)
Jackson JKS (McKeller)	FSS	(901)	427–0611
Johnson City	WB	(615)	323–8242
Kingsport	WB	(615)	323–8242◆
Knoxville TYS (McGhee-Tyson)	FSS	(615)	577–0795
	WB	(615)	577–4805◆
(from Maryville)		(615)	982–3682
Maryville (See Knoxville)			
Memphis MEM DF	FSS	(901)	398–9260/9
	WB	(901)	398–2347★
Nashville BNA (Metropolitan)	FSS	(615)	254–6552/3
	WB	(615)	255–8732★
	WB	(615)	256–4468◆
Tri City TRI	FSS	(615)	323–7242

TEXAS

Location and Identifier		Area Code	Telephone
Abilene ABI	FSS	(915)	OR 4–6915▬
Alice ALI	FSS	(512)	MO 4–4291
Amarillo AMA (Air Terminal)	FSS	(806)	349–1608▬
Austin AUS (Robert Mueller)	FSS	(512)	GR 8–6695
	WB	(512)	476–8554
Beaumont BPT (Jefferson County)	FSS	(713)	RA 2–0288
	WB	(713)	722–7011◆
Brownsville BRO (Rio Grande Valley International)	FSS	(512)	LI 6–6421
	WB	(512)	542–8231◆
Childress CDS	FSS	(817)	WE 7–3892
College Station CLL (Easterwood)	FSS	(713)	VI 6–8784/5
Corpus Christi	WB	(512)	883–3008◆
Cotulla COT	FSS	(512)	TR 9–2417
Dalhart DHT	FSS	(806)	CH 9–2006
Dallas Love Field DAL	FSS	(214)	FL 2–8491▬
	WB	(214)	264–3481★
			(Transcribed from Ft. Worth)
Del Rio	WB	(512)	775–2115
El Paso ELP (International)	FSS	(915)	778–6449
	FSS	(915)	772–6448▬
	WB	(915)	778–4487★

TEXAS (Con't.)

Location and Identifier		Area Code	Telephone
Fort Worth FTW (Meacham)	FSS	(817)	MA 4–8471
	WB	(817)	283–1571★
	WB	(817)	283–3961◆
Galveston GLS (Scholes)	FSS	(713)	SH 4–3255
	WB	(713)	763–5670
Gregg County GGG (Longview)	FSS	(214)	MI 3–2612
Houston HOU (International)	FSS	(713)	MI 5–6693▬
	WB	(713)	644–1507★
Junction JCT (Kimble Co.)	FSS	(915)	HI 6–3214
			(0600–1800)
			(Other hrs San Antonio)
Lubbock LBB	FSS	(806)	PO 2–5802
	WB	(806)	762–2380◆
Lufkin LFK (Angelena County) DF	FSS	(713)	NE 4–3544
McAllen MFE (Miller Field)	FSS	(512)	MU 2–2878/9
Midland MAF (Air Terminal)	FSS	(915)	563–2611▬
Mineral Wells MWL	FSS	(817)	FA 5–5922
Palacios PSX	FSS	(713)	824–2218
Port Arthur	WB	(713)	722–7011◆
San Angelo SJT (Mathis)	FSS	(915)	655–5638
	WB	(915)	655–9780◆
San Antonio SAN (International)	FSS	(512)	TA6–9575▬
Tyler TYR (Pounds)	FSS	(214)	LY 4–6301
Victoria	WB	(512)	445–1276◆
Waco ACT	FSS	(817)	PL 2–4811
	WB	(817)	754–1582◆
Wichita Falls SPS Sheppard AFB/Wichita Falls Air Trml	FSS	(817)	322–1302
	WB	(817)	322–2011
Wink INK DF	FSS	(915)	LA 7–3351

UTAH

Location and Identifier		Area Code	Telephone
Bryce Canyon BCE	FSS	(801)	834–5311
Cedar City CDC	FSS	(801)	JU 6–9131
Delta DTA	FSS	(801)	4741
			(0600–1800)
			(Other hrs Salt Lake City)
Milford	WB	(801)	387–2361
			(0900–1700)
Ogden	WB	(801)	399–5806
Salt Lake City SLC (Municipal No. 1)	FSS	(801)	524–5183▬
	WB	(801)	364–5571
Wendover	WB	(801)	665–2382
			(0430–2015)

VERMONT

Location and Identifier		Area Code	Telephone
Burlington	WB	(802)	862–2475
			(0600–2300)
Montpelier MPV (Barre-Montpelier)	FSS	(802)	223–2376
	FSS	(802)	878–3393
			(from Burlington)

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

VIRGINIA

Location and Identifier		Area Code	Telephone
Blackstone BKT	FSS	(703)	292–3826
			(0600–2200)
Bristol	WB	(615)	323–8242◆
Chantilly (Dulles)	WB	(703)	661–8526◆
Charlottesville CHO (Charlottesville/ Albermarle)	FSS	(703)	973–3909
Danville DAN	FSS	(703)	SW 3–1163
Lynchburg (Muni-Preston Glenn	WB	(703)	239–0345◆
			(0600–1930)
Newport News PHF (Patrick Henry)	FSS	(703)	877–0200
Norfolk	WB	(703)	853–3014◆
Richmond RIC (Byrd Flying Field)	FSS	(703)	437–5249▬
Roanoke ROA (Woodrum)	FSS	(703)	362–1668▬

WASHINGTON

Location and Identifier		Area Code	Telephone
Bellingham BLI	FSS	(206)	734–6400
Ephrata EPH	FSS	(509)	SK 4–2361
Hoquiam HQM (Bowerman)	FSS	(206)	GE 9–3432
Olympia	WB	(206)	357–8386
Seattle SEA (Boeing)	FSS	(206)	RO 2–4000
	WB	(206)	682–3655★
Spokane GEG (Felts)	FSS	(509)	KE 5–2906
	WB	(509)	624–5674◆
Toledo TDO (Toledo-Winlock)	FSS	(206)	864–2371
			(0500–2100)
Walla Walla ALW (City-County)	FSS	(509)	JA 9–1413
Wenatchee EAT (Pangborn)	FSS	(509)	TU 4–5654
Yakima YKM	FSS	(509)	GL 3–9862
	WB	(509)	GL 7–4371

WEST VIRGINIA

Location and Identifier		Area Code	Telephone
Beckley	WB	(304)	252–3171◆
Bluefield BLF (Mercer County)	FSS	(304)	325–6521
Charleston CRW (Kanawha)	FSS	(304)	342–1371▬
Elkins EKN (Randolph)	FSS	(304)	636–0810
	WB	(304)	636–1246◆
Huntington HTS (Tri-State)	FSS	(304)	453–3951▬
	WB	(304)	453–3674◆
Martinsburg MRB	FSS	(304)	AM 3–9353

WEST VIRGINIA (Con't.)

Location and Identifier		Area Codes	Telephone
Morgantown MGM	FSS	(304)	292–3632
Parkersburg PKB (Wood County)	FSS	(304)	485–6421
	WB	(304)	422–3661
			(0700–1400 Mon-Fri)
			(0700–1200 Sat)
Wheeling HLG (Ohio County)	FSS	(304)	CR 7–1252

WISCONSIN

Location and Identifier		Area Codes	Telephone
Eau Clare EAU	FSS	(715)	835–9642
Green Bay GRB (Austin Straubel)	FSS	(414)	494–7417▬
La Crosse LSE	FSS	(608)	785–1225▬
Lone Rock LNR(Tri-County)	FSS	(608)	583–2661
Madison MSN (Traux)	FSS	(608)	244–1033
	WB	(608)	249–6644◆
Milwaukee MKE (General Mitchell)	FSS	(414)	481–4414
	FSS	(414)	481–6116
	WB	(414)	744–7810★
	WB	(414)	744–5860◆
Wausau AUW	FSS	(715)	845–7396

WYOMING

Location and Identifier		Area Codes	Telephone
Casper CPR (Air Terminal) DF	FSS	(307)	234–5053
	WB	(307)	234–1201◆
Cheyenne CYS	FSS	(307)	638–9711
	WB	(307)	638–3642◆
Lander	WB	(307)	332–2718
Laramie LAR (General Brees Field)	FSS	(307)	745–4010
Rawlins RWL	FSS	(307)	324–3241
Rock Springs RKS	FSS	(307)	362–2121
Sheridan SHR (Sheridan County)	FSS	(307)	674–7426▬
Worland WRL DF	FSS	(307)	347–4122

PUERTO RICO

Location and Identifier		Area Codes	Telephone
San Juan SJU (Puerto Rico Intl)	IFSS		791–1780
	WB		791–0320

VIRGIN ISLANDS

Location and Identifier		Area Codes	Telephone
St. Croix STT (Christiansted, Alexander Hamilton)	FSS		773–1425

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in addition to frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense VFR Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	groundcontrolled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend from Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical raditors), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum en-route IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

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bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense VFR Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
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ident	identification
IFF	Identification Friend from Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical raditors), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
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MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmission
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omnidirectional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omnidirectional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Indicate Appropriate Part. Date ------------------------------

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3–A, Notices to Airmen

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AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE–FY 1966

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

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Effective Date	Part 1	Part 2	Part 3	Part 3A
June 9				May 27
June 23			June 6	June 6
July 7				June 27
July 21			July 1	July 1
August 4				July 25
August 15	July 15			
August 18			August 1	August 1
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October 27				October 17
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930–1730 Sun. Up to 12,500′.

Fort Rucker, Calms AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Gadsden:1000–1700 Weekends. Up to 12,500′.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500′.

ARIZONA

Chandler:090–1700 weekends. Up to 12,500′.

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800–1700. Up to 12,500′.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000′.

ARKANSAS

Ashdown: Weekends. 1200 to SS. Up to 12,500′. (Mostly in summer mos.)

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Dardanelle: 1 mi S of City on Hwy 7. Weekends. 0700–dark. Up to 13,000′.

Fayetteville: 6 mi N Drake Arpt. Mon thru Fri 1900Z–SS. Sat, Sun, Holidays 1400Z–SS. Up to 12,500′.

Jonesboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200–SS. Up to 12,500′.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500′.

Arvin: 3 mi SW. Daily, day and ngt. Up to 20,000′ MSL.

Avenal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0300Z occasional jumps week days 0000–0300Z; up to 10,000′.

Black Point: Sky diving weekends up to 12,500′.

Black Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500′ MSL.

●**California City Arpt:** NW of fld.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

Clay: 4 NM N. 1600–0800GMT daily. Up to 3000′.

Clear Lake: Into Clear Lake at 39°05′N, 122°51′W. Mon thru Sat. Up to 4400′ MSL.

Davis, Yolo Co. Intl Arpt: 800′ E of apch end rnwy 36. Daily, SR-SS. Up to 12,500′ MSL.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000′ MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800′–15,000′, opening at absolute alts of 2000′–2500′. Center of drop zone lctd at 36°38′N, 121°46′W in Restricted Area R–2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000′.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,500′.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000′.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500′ MSL.

Imperial Beach: Weekends. 0800–1200. Up to 1500′.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000′ MSL.

Lake Berryessa: Lat 38°31′, 122°12′. Mon thru Sat. Up to 2000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld, Santee, Calif., two mi out of ctl area. Daily, greatest activity weekends. Up to 15,000′.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends and holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy btn Linden and Sacramento VORs. Up to 9,500′.

Los Banos Arpt: 3.5 mi SE; edge of V–113. Suns SR–SS. Up to 10,000′.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000′ MSL.

Milpatas, King Skylanes Arpt: 3 mi E; Weekends. From 12,500′.

Ojai, Henderson Arpt: Weekends from 14,000′ MSL 3 mi SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500′ MSL. Weekends and holidays.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000′ MSL.

Piru: Tues-Fri. 2 mi E. Up to 14,500′.

San Diego, Brown Fld: NW corner of fld. Weekdays, morning hrs. Up to 15,000′.

San Diego–County Arpt (Gillespie Fld): Up to 20,000′ MSL, chute opening alt aprxly 2700–3000′ MSL in vcnty of arpt.

San Diego, Otay Reservoir: Weekdays and ngts. Up to 15,000′.

San Diego Co.: 5 mi ESE Brown Fld, adj Mexico. Weekdays and ngts. Up to 15,000′.

Santa Maria Arpt: Weekends and holidays. Up to 15,000′ MSL. 6 NW.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000′.

Sonoma Valley: Weekends (occansionally during the wk.) 0800–SS. Up to 15,000′.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Daylgt hrs. Up to 8,000′.

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Suns and holidays. Up to 18,500′ MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 and 20,000′ AGL.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 15,000′ MSL.

Denver: 2.5 mi SE of Cherry Creek Dam. 0800–SS, weekends, and holidays. Up to 15,000′ MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays. Dalgt hrs. Up to 13,000′.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Littleton, Columbine Arpt: 2 mi S. Up to 18,500′ AGL.

Longmont Mun Arpt: Weekends and holidays up to 15,000′.

Sedalia, Littleton Arpt: Weekends and holidays. Up to 14,500′ MSL.

CONNECTICUT

Bethany: Weekends and Wed (P.M.). 0800–SS. Up to 12,500′.

Burlington, Johnnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200–SS. Up to 12,500′.

Harwinton: 0800–dusk. Weekends. Up to 7200′.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Buchan Arpt: 7 mi S of Venice. Weekends and holidays. Up to 15,500′.

Clewiston, Airglades Arpt: Up to 12,000′.

Deland Mun Arpt: Up to 7,000′ daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500′.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

Gainesville: Weekends 0800–1600. Up to 9,600′. Up to 12,000′.

Homestead AFB: Occasionally. Up to 1,000′ MSL.

Howey Arpt: Weekends. Up to 10,000′.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800–1600. Up to 15,000′. (2) 2 mi NW of Herlong Fld. Weekends. 0800–1600. Up to 7,500′.

Kissimmee Arpt: Daily and weekends. Up to 12,000′.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500′.

Palatka: Suns. 0800–1600. Up to 7500′.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.

Santa Rosa Island: Daily. Up to 12,500′.

Umatilla Arpt: 32 NM 325° rad. Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.

Venice Arpt: 7 mi S. Weekends and holidays. Up to 15,500′.

Zephyrhills Ahpt: Sundays, occasionally weekdays. Up to 12,500′.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500′ AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500′.

Cohutta: 10 mi N Dalton. Weekends. 1200–1900. Up to 13,500′.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500′.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

Fitzgerald: Daily, mostly on Sats and Suns. 0900–1700. Up to 12,500′.

Fort Benning: Daily. 0600–2000. Up to 18,000′.

Ft. Steward: Daily, Sats and Suns. Up to 15,000′.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935′ MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000′.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

Waycross: Weekends. 1000–1600. Up to 12,500′.

IDAHO

Weiser: 1500Z–SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.

Alton, Civic Meml Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.

Antioch: 3 mi N.

Breese Arpt: ½ mi N. Up to 7,000′.

Chicago, Hammond Arpt: Weekends. Up to 12,500′.

Clinton: ½ mi E. Weekends. 1200–SS. Up to 10,000′.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

Dixon, Walgren Meml Arpt: Weekends, holidays and occasionanl weekdays. 0900—SS. Up to 10,000′.

Hebron Arpt: Daily.

Hillsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

O'Fallon: N on edge of town. Weekends. 1200–1800. Up to 7500′.

Pekin: 3 mi S. Weekends. 1200–SS. Up to 15,000′.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500′.

Springfield: Weekends. 1200–SS. Up to 10,000′.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500′.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500′.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

Shelbyville: 5 mi N. Wed, Sat and Sun. 1000-SS. Up to 15,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.

Des Moines: Between Camp Dodge and Johnston Station. Thurs and Sun. 1300–SS.

Mechanicsville: 5S, 2 mi radius. Weekends and occasionally wk days SR–SS. Up to 15,000′.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

Northwood: Weekends. 0900–SS. Up to 13,000′.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500′.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000′.

KANSAS

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000′.

Fort Leavenworth Military Reservation: Weekends and holidays Occasionally weekdays. Up to 12,500′.

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Junction City Mun Arpt: Suns 1400Z–SS. Up to 13,700′.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500′.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000′. Occasionally ngts.

Oxford: Weekends. 1300–1900. Up to 13,000′.

KENTUCKY

Fort Knox: 3 mi SW of Godman AAF weekends and holidays, 1300–1700. Up to 10,000′.

Greenville-Muhlenberg Co. Arpt: Suns and holidays 0700–SS. Up to 12,500′.

LOUISIANA

Abbeville: Weekends. 0900–SS. Up to 17,000′.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500′.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900–SS. Up to 12,000′.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.

Fort Polk, Polk AAF: 2 nmi radius.

Thibodaux: 1 mi E on Hwy 1. Weekends. 0900–SS. Up to 13,000′. 20 mis N. Weekends. SR-SS. Up to 12,500′.

Youngsville: Weekends. 0900–SS. Up to 13,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland, Mexico Farms Arpt: Up to 3000′. Most activity weekends.

Edgewood: 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

Patuxent River NAS: On V-213. 2200–2400 weekdays; 1500–2100Z Sat, Sun and holidays. Up to 12,500′.

Stevensville, Carroll's Arpt: Weekends. Up to 12,500′.

MASSACHUSETTS

Agawam: Daytime only. Up to 15,000′.

Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up to 13,500′ MSL, lat 42°28′, long 71°42′.

Hatfield, Pilgrim Arpt: Day time only. Up to 15,000′.

Mansfield Muni Arpt: Day time only. Up to 15,000′.

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Day time only. Up to 15,000′.

North Attleboro: 5 mi W of Mansfield Arpt. Sat, Sun & holidays. Two hours proceeding dusk. Up to 7500′.

Orange Muni Arpt: Day time only. Up to 15,000′.

Pepperell Arpt: Day time only. Up to 15,000′.

Tauton Muni Arpt: Day time only. Up to 15,000′.

Turners Falls: Weekends. Dawn-Dusk. Up to 12,500′.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500′.

E. Tawas, Iosco Arpt: Up to 13,500′.

Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500′.

Gaylord: Weekends. Dawn-Dusk. Up to 12,500′.

Grand Rapids (So. Kent Fld): Weekends. 0900–dusk. Up to 12,000′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Lake City: 6mi E, 1 N. Weekends. SR–SS. Up to 12,500′.

LaSalle: 5 mi S of Custer Arpt. 0900–SS. Up to 12,500′.

Marksfield, Lawton: Sat and Sun. 0900–SS. Up to 15,000′.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Midland: Sat, Sun, Wed. SR–SS. Up to 12,500′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

Muskegon Northside Airport: Up to 15,000′.

Saginaw Arpt: Weekends. Up to 13,000′.

Saline Arpt: 1 mi SW. 0800 to SS Sats and Suns, and holidays. Up to 18,000′.

Tecumseh Arpt: Daily. Up to 17,500′.

Traverse City: Weekends. SR–SS. Up to 12,500′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Monticello, Flynn Arpt: Wk-end. Up to 12,000′ AGL.

Rosemount: 3 mi SE. Up to 2500′.

Stanton, Carleton Arpt: Wed 1600–SS during June; July and Aug wk-ends 0800–SS. Up to 14,500′ AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000′.

Hattiesburg: During the week. SR–SS. Up to 12,500′.

Jackson: 10 mi SW. 0900–SS. Weekends. Up to 12,500′.

Louisville: 5 mi S. Weekends. Up to 12,500′.

Lucedale, Formco Arpt: Weekends. Up to 12,000′.

Ocean Springs, Gulfpark Arpt: SR–SS Sats, Suns, holidays and occasional wk days. Up to 12,500′ AGL.

MISSOURI

Chesterfield: Weekends. Up to 10,000′.

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lobmaster Arpt: Weekends and holidays. Up to 11,000′.

Valleroy: Weekends. 1200–1800. Up to 8000′.

●**Vichy, Rolla Natl Arpt:** Daily SR–SS. Up to 12,500′.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800–dusk. Up to 10,000′.

Glendive: Sat and Sun, occasionally wk days.

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Kalispell: Weekends. 0700–2000. Up to 10,000′.

Laurel: Sat, Sun. 0900–1800. Up to 10,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500′ MSL.

Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500′.

NEW HAMPSHIRE

Antrim Feather Air Park: Weekends. Dawn-dusk. Up to 12,600′.

Hollis: 3 mi SW Boric Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600′.

Hooksett: Tues, Sat Sun, and holidays. 0900–2100. Up to 12,500′.

Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900–dusk. Up to 5,200′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500′.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

Manville, Decker Arpt: ½ mi SW rnwy. Dawn to dusk. Up to 15,000′.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500′.

NEW MEXICO

Alamogordo Mun Arpt: Dalgt hrs Fri, Sat, Sun. Up to 16,000′ MSL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000′.

Belen: 3 to 5 mi SE. Weekends and holidays. Up to 18,000′.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.

●**Greene Arpt:** Within 5 mi radius. Daily 1100Z–SS. Up to 12,500′.

Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. Up to 13,000′ AGL.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500′.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MSL.

Randolph Arpt: Daily. Up to 15,000′.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000′.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500′ MSL

Wallkill (Galesville): Every day of wk. 1000–2130. Up to 14,000′.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500′.

Charlotte, Brockenborough Arpt: 5 mi N. Daily 0800–dusk. Up to 14,000′.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900-1630. Up to 13,000′.

New River MCAF: On V157 1100–0300 daily from 23,500′.

●**Oak Grove OLF:** Sat, Sun and holidays from 0800-1830. Up to 15,000′.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000′.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12,000′.

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

Ada Arpt: 2 mi N. Weekends 1400–2300Z. Up to 9500′ AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000′.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500′.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000′

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000′.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500′ AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.

Lenox Arpt: Sat and Sun. 0800 2100 EDST. Up to 12,500′.

Lima: Weekends. 1200–SS. Up to 12,500′.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000′ MSL.

Oberlin: Fri. 1600–dark. Up to 12,500′.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500′ AGL.

Piqua Arpt: Up to 12,000′. Daily.

Roundhead: Weekend. 1200–SS. Up to 12,500′.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500′.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500′.

South Dayton Arpt: Up to 18,000′. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.

●**Valley City:** 3.5 mi W. (Weekends. Up to 12,500′ AGL.

●**Van Wert:** Mon-Fri 2100Z–SS; Sat, Sun SR-SS. Up to 12,500′ AGL.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Claremore: Weekend. 0800–SS. Up to 12,500′.

Dewey: Weekends. 0800–SS. Up to 12,500′.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500′.

Frederick: Weekend. Dawn-dusk. Up to 10,000′.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stillwater: 5 mi W. Weekend. 0800–SS. Up to 12,500′.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Albany: 1½ mi SE of arpt. Weekends. 1000–SS. Up to 13,000′ MSL.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 2 mi N and 5 mi NE. Periodically June thru Sept. From 2000′ AGL.

Cottage Grove: 1½ mi E of city. Wed, Thurs, Fri, Sat 1600–2030. Up to 10,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR-SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR-SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

Portland: ½ mi S and 3 mi E of Scholl Arpt, Orchards, Wash.

Portland: 4 mi N Aurora Flight Strip, Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

Buffalo Springs Arpt: Weekend. SR–SS. Up to 15,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Maytown: 2 mi NE. Weekend. SR–SS. Up to 12,500′.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

Mountville, Gordon Sport Arpt: Weekend. Dawn-dusk. Up to 15,000′.

New Hanover Arpt: Most activities weekends. Up to 12,500′.

Palmyra, Reigles Arpt: Wed and Sun. Dawn-dusk. Up to 15,000′.

Pottstown Arpt: Weekends. Up to 8000′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

Darlington Co. Arpt: Daily SR–SS. Up to 12,500′ AGL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR-SS. Up to 12,500′.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens, McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Caddo Mills Airfield: 18.5 NM due E of Dallas VOR. 0200Z thru 0500Z and 1900Z thru 2300Z Sats and Suns. Up to 2040′ MSL.

Clear Springs Arpt: Suns. Up to 12,500′.

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AFB. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampasas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

Littlefield Mun: 2200Z–SS daily. SR–SS Sat, Sun, holidays. Up to 12,000′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 8 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

Rio Vista: 2 mi W. Tues, Thurs, Sat, and Sun. 0800–2000. Up to 12,500′.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

Hill AFB: Two times per mo. during daigt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Centerville: 4 mi W. Sat and Sun. SR–SS. Up to 15,000′.

Forest, New London Arpt: Daily. Up to 11,000′.

Hopewell Arpt: Weekends. Up to 9000′.

Leesburg: 2 nmi N or 10 nmi Herndon VOR on 340° radial. Weekends. Up to 12,500′. Occasional ngt jump.

Manassas: On the Herndon 195 radial 15 mi. Weekends and holidays. Occasional ngt jumping. Up to 12,500′.

Midland: 8 nmi from CSN VOR on 120° rad. Weekends. Up to 12,000′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000′.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Dayigt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

Quantico MCAS: NW end of base. Weekdays 1600–1800, Sat 0900–1100 and holidays. Up to 13,000′.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Muni Arpt: Cont. Up to 12,000′.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

● **Bellingham Arpt:** 6NE. 7days per wk. Up to 12,500′ AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000′ MSL.

Enumclaw Arpt: Weekends and holidays. Up to 15,000′.

Issaquah-Sky Ranch Arpt: Wed, Fri and weekends. Up to 7000′.

Larson AFB: ½ mi from end of rnwy 21. Daily. Up to 2500′ AGL.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 6 mi N SR to 1 hr after SS. Up to 12,000′ AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500′.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

● **Lake Geneva Wal-Co. Farms Arpt:** Wed, Sat and Sun SR—one hr after SS. Up to 15,000′.

New Holstein Arpt: Weekends, SR-SS. Sat and Sun. Up to 12,500′.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500′.

Stevens Point Mun Arpt: 2 mi NW. Daily. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500′ MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500′ AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000′.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred Route Starting and Terminating Fixes—Preferred routes generally commence and terminate at fixes on or near the perimeter of the terminal area.

Depicted on the Area Charts, produced by **Coast and Geodetic Survey**, are the normal routes between the airport and the **preferred route starting/terminating fixes**. Whenever a fix is shown in **bold-face type**, **pilots should** refer to the appropriate Area Chart for the routing he may **expect prior** to or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names aer spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston	V2 **GDM** (L-25)
Kennedy	V91 **RVH** (L25)
LaGuardia	V91 V487 **Stamford** (L25)
Newark	V489 **Budd Lake** (L25)

ALBUQUERQUE

Denver	**Aden** V19W SAF V83 PUB V19E **IOC** (L-4, 6)
Kansas City	**Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L-6)
Los Angeles	**GNT** V12 EED V208 TNP V264S **ONT.** (L-4, 3)
Phoenix	**GNT** V190N SJN V190 **Lake.** (L-4)

ATLANTA METRO AREA

Birmingham	**Chattahoochee** V18N ANB (L20, 14)
Charlotte	**Conyers** V66 FML (L-20)
Cincinnati	Crabapple V97 **Dry Ridge** (L-20, 22)
Chicago	**Crabapple** V51 **CGT** (L-14, 20, 21, 23)
Dallas	**Chattahoochee** V18N ANB V18S TCL V18 MLU V94 V477E **Forney** (L20, 14, 18, 17, 13)
Dulles	**Conyers** V66 FML V454 LVL V155 GVE V39E **Brandy** (L20-22)
Houston	Chattahoochee V18N ANB V18S TCL V18 MEI V194 MCB V222 LCH V222N **Monument** (L20, 14, 18)
Kennedy	**Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
Jacksonville	**Griffin** V243 AYS V243W **Callahan** (L20, 18)
La Guardia	**Conyers** V66 FML V454 LVL V157 RIC V20 V213 **RBV** (L-20, 22, 24)
Memphis	**Chattahoochee** V18N ANB V18 BHM V176N HLI (L20, 14)
Miami	**Brooks** V97 ABY V159 V159W CTY V7 LAL V157 **Cypress** (L20, 18, 19)
Newark	**Conyers** V66 FML V454 V157 V20 V213 V29 V433 **Rocky Hill** (L-20, 22, 24)
Orlando	**Griffin** V243 AYS V157 OCF V159W **Clermont** (L20, 18, 19)
Pittsburgh	**Crabapple** V97 TYS V115 PKB V119 **HLG** (L-20. 22, 24)
Tampa	**Brooks** V97 ABY V159 V159W CTY V7 Homo V35E **Hazel** (L20, 18, 19)
Washington	**Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta	ANB V18 **Sargent** (L-14, 20)
New Orleans	TCL V18 MEI V455 HBG V455W **Madison** (L14, 18 17)
Pittsburgh	GAD V115E CHA V115 PKB V119 **HLG** (L-14, 22, 24)

BOSTON METRO AREA

Albany	V14 Melrose (L-25)
Buffalo	V14 Bellona V31 ROC V142 **Grant** (L-25)
Cleveland	V14 ALB V72 Hadley V232 **Mentor** (L-25, L-24)
Kennedy	**PUT** V475E V16 **RVH** (L25)

BOSTON METRO AREA—Continued

LaGuardia	**Millbury** V3 V445 **Stamford** (L25)
Newark	**Millbury** V3 V292 **Budd Lake** (L25, 24)
Philadelphia	**Millbury** V3 **Warrington** (L25, 24)
Rochester	V14 Bellona V31 Fishers (L-25)
Washington	**PUT** V308 **North Beach** (L25, 24)
Windsor Locks	**PUT** PUT 295 rad Meadow, (L25)

BUFFALO

Boston	**GEE** V14 **GDM** (L-12, L-25)
Cleveland	**Langford** V464 DKK V14 **Mentor** (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 **QG** (L-12, 23)
Kennedy	V252 BGM V270 V34 **RVH** (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 **Liberty** (L-12, 25)
Midway	V84 LAN V218 **Surf** (L-12, 23)
Newark	V252 GEE V147 TOH V226 **Budd Lake** (L12-25)
O'Hare	**V84 OBK** (L12, 23)
Philadelphia	V33 PSB V238 **ESR** (L-12, 24)
Pittsburgh	V115 **EWC** (L-12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn **DCA** (L12-24)

CHARLESTON, W. VA.

Cincinnati	V128 **California** (L22)
Cleveland	V115 PKB V59 V427 V40 **Sharon** (L22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 **HLG** (L-22, 24)
Washington	V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

Atlanta	FML V194 Homer V20N **OCR** (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 **RBV** (L-20, 22, 24)
Miami	FML V37 ALD V157 **Cypress** (L20, 18, 19)
Washington	New London V454 LVL V157 **Ironsides** (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	**EON** V171 SCJ V243 **Kennesaw** (L23, 21, 14, 20)
Denver	**Malta** V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	**Musky** V100 ELX V218 **Troy** (L23, 12)
Dulles	**EON** V144 **Blue Ridge** (L23, 24)
Kennedy	V6 SEG V170 V276 **RBV** (L23, 24)
Indianapolis	**EON** V128 (L-23)
La Guardia	V6 V433 **Liberty** (L-23, 24)
Los Angeles	**Malta** V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	**Big Run** V173 CAP V9 Kerrville (L-23, 21, 14)
Miami	**EON** V171 SCJ V243 Harrison V97 ABY V159 GEF V159W CTY V7 LAL V157 **Cypress** (L23, 21, 14, 20, 18, 19)
Minneapolis	**Malta** V218 RST V82 **FGT** (L23, 11, 10)
Newark	V6 SEG V30 **Rocky Hill** (L-23, 24)
Philadelphia	V6 PSB V238 **ESR** (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 **EWC** (L23, 24)
San Francisco	**Malta** V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
St. Louis	**Big Run** V191 Palmer V426 **Godfrey** (L23, 21)
Tampa	**EON** V171 SCJ V243 Harrison V97 ABY V159 GEF V159W CTY V7 Homo V35E **Hazel** (L23, 21, 14, 20, 18, 19)
Tulsa	**API** V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	**EON** V144 ESL V4 **HRN** (L23, 24)

From Midway only

Cleveland	**Crib** V6 SKY V232 **Vermillion** (L23)
Des Moines	**API** V8 CVA V233 CID V172 TNU (L23-11)
Kansas City	**API** V10 **Kearney** (L-23, 11, 21)
● Metro Wayne Co.	**Crib** V10 **Milan** (L23)
Omaha	**API** V8 CVA V233 CID V172 EOL (L23, 11)
● Willow Run	**Crib** V10 **Milan** (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 **Vermillion** (L-23)
Des Moines	V172 **TNU** (L-23, 11)
Kansas City	V84 BDF V10 **Kearney** (L-23, 11, 21)
● Metro Wayne Co.	V172 Musky V100 LeRoy V30 LFD V10 **Milan** (L23)
Omaha	V172 EOL (L23, 11)
● Willow Run	V172 Musky V100 LeRoy V30 LFD V10 **Milan** (L23)
Windsor	V100 V218 **Troy** (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 **OCR** (L-21, 22, 20)
Charleston W. Va.	V128S YRK V128 (L22)
Chicago	V97 **CGT** (L-21, 23)
● Detroit (City)	V275 **SVM** (L21, 23)
Indianapolis	V97 (L-21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 **Liberty** (L22-24)
Louisville	V47 ABB V51 (L-21)
● Metro Wayne Co.	V275 **Milan** (L21, 23)
Miami	V47 ABB V51 CSV V51W Harrison V97 ABY V159 V159W CTY V7 LAL V157 **Cypress** (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 **Rocky Hill** (L22-24)
Pittsburgh	V128S YRK V44 PKB V119 **HLG** (L22-24)
St. Louis	V47 ABB V44 ENL V4 **TOY** (L-21)
● Willow Run	V275 **Milan** (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 **GDM** (L-23, 24, 12, 25)
Buffalo	V14N **Crystal Beach** (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 **Niles** (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	V42E QG V90 (L-23)
Kennedy	**ACO** V30 SEG V170 V276 **RBV** (L24)
Indianapolis	**CLE** V14 (L23)
La Guardia	**ACO** V30 CIP V6 Amboy V433 **Liberty** (L-24)
● Metro Wayne Co.	V42E V103 **Lasalle** (L23)
Miami	V443 V133 V35 V185 Dover V157 **Cypress** (L23 22, 20, 18, 19)
Newark	**ACO** V30 **Rocky Hill** (L-24)
Philadelphia	**ACO** V30 PSB V238 **ESR** (L-24)
Pittsburgh	**ACO** V297 **EWC** (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	**ACO** V103 IRL V37 Millsboro V92 FRR V4 **HRN** (L-24)
● Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L-23, 24, 22)
Indianapolis	Grindell V210 (L-23)
LaGuardia	**APE** V12 V106 V6 V433 **Liberty** (L23, 24)
Pittsburgh	APE V12 **HLG** (L-23, 24)
St. Louis	V12N V210 VLA V14N **Godfrey** (L-23, 21)
Toledo	V38 FDY V47 (L-23)
Washington	APE V144 ESL V4 **HRN** (L-23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	**Lakeside** V114 Claude (L-13)
Atlanta	**DAL** V278 BHM V18 **Sargent** (L-13, L-14, L-20)
Dulles	**DAL** V278 V16 BNA V140 MOL V251 V174 **Blue Ridge** (L13-14-21-22)
El Paso	**Joshua** V94 INK V16 **RIO** (L-13, 4)
Houston	**Trinity Fork** V477 LOA V477W **Fairbanks** (L-13, 17)
Los Angeles	**Joshua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L-13, 4, 3)
Memphis	**DAL** V278 TXK V16 Walls (L13-L14)
Midway	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
New Orleans	**DAL** V114 **French** (L-13, 17)
O'Hare	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
San Antonio	**Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L-13, 15)
Tulsa	**DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L-13, 6)
Washington	**DAL** V278 V16 BNA V140 MOL V16N GVE V16 **Ironsides** (L-13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 **CGT** (L-23)
● Cleveland	V275 V47W FDY V8 MFD V246 **Sharon** (L23)
● Detroit/City	V275 **SVM** (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
● Metro Wayne Co.	V275 **Milan** (L23)
● Willow Run	V275 **Milan** (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N **Langston** (L23-21-6)
Washington	V12 APE V144 ESL V4 **HRN**(L-23, 24)

DENVER METRO AREA

Chicago	**DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L-8, 11, 23)
Kennedy	**DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 **RBV** (L12, 24)

From City and Windsor only

Newark	V221 ERI V170 SEG V30 **Rocky Hill** (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 **ESR** (L-12, 24)
Ft. Wayne	**SVM** V170 Leslie V45 JXN V221 (L-23)
Midway	**SVM** V170 V84 V7E V116 (L-23)
Milwaukee	**SVM** V170 PMM V30S **Pike** (L-12, 23)
O'Hare	**SVM** V170 V84 **OBK** (L-23)

From Metro or Willow Run only

Buffalo	V221 V90 V14N **Crystal Beach** (L-12)
● Cleveland	**Stripe** V297 **Vermilion** (L23)
Ft. Wayne	**Dexter** V221 (L-23)
Midway	**Pinckney** V170 V84 V7E V116 (L-12, 23)
Milwaukee	**Dexter** V116 JXN V45 Leslie V170 PMM V30S **Pike** (L-12, 23)
O'Hare	**Pinckney** V170 V84 **OBK** (L-12, 23)
● Pittsburgh	**Stripe** V133 Bay V6 V42 ACO V297 **EWC** (L23, 24)
Rochester	V221 V90 V14 V2 (L-12)
● Washington	**Stripe** V133 ZZV V144 ESL V4 **HRN** (L23, 24)

EL PASO

Dallas	**HUP** V66 MAF V16S BGS V16 ABI V66 Denton V114 **Lakeside** (L-4, 13)
Los Angeles	**EWM** V94 GBN V461 BXK V16 **ONT** (L-4, 3)
San Antonio	**HUP** V198 **Boerne** (L-4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 **PRR** (L-19)

HOUSTON METRO AREA

Atlanta	**LaPorte** V20S LCH V20 LFT V70 MVC V20 **Tyrone** (L-17, 18, 14, 20)
Dallas	**Gulf Coast** V477E **Forney** (L-17, 13)
New Orleans	**LaPorte** V20S LCH V20 **Turtle** (L-17)
San Antonio	**Andrau** V222 **Hunter** (L-17, 15)

INDIANAPOLIS

Detroit	V11 **SVM** (L-23)
Evansville	V11W SCJ V11E (L-21)
Kennedy	V50 DAY V12 V106 V276 **RBV** (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 **Liberty** (L23, 24)
● Metro Wayne Co.	V1 V10 **Milan** (L23)
Midway	V97W V97 **CGT** (L-23)
Newark	V50 DAY V12 V106 V30 **Rocky Hill** (L23, 24)
Pittsburgh	V50 DAY V12 **HLG** (L-23, 24)
St. Louis	V14 VLA V14N **Godfrey** (L-21)
● Willow Run	V11 V10 **Milan** (L23)

JACKSONVILLE

Atlanta	**Kings** V5E DBN V5 **MDU** (L18, 20)
Dulles	**Clinch** V3E SAV V3 RDU V155 GVE V39E **Brandy** (L18-20-22)
Kennedy	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 **BGT** (L-18, 20, 22, 24)
LaGuardia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 **RBV** (L-18, 20, 22, 24)
Miami	**Blue Jacket** V267 **New River** (L-19)
Newark	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 **Rocky Hill** (L-18, 20, 22, 24)
Norfolk	**Clinch** V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN V266 Burdette (L18-20-22)
Orlando	**Blue Jacket V267** Woodruff (L-18, 19)
Philadelphia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 **OOD** (L-18, 20, 22, 24)
Washington	**Clinch** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L-18, 20, 22)

KANSAS CITY METRO AREA

Midway	**Excelsior** V116 **JOT** (L–21, 23)
O'Hare	**Excelsior** V116 **JOT** (L–21, 23)
St. Louis	**BSP** V12 **MTS** (L–21)
Wichita	**Bonner Springs V12** De Graff (L–6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 **Liberty** (L–21, 22, 24)
Newark	V4 CRW V106 V30 **Rocky Hill Hill** (L–21, 22, 24)

MEMPHIS

Atlanta	Wyatte V176 S HAB V176 BHM V18 **Sargent** (L14–L20)
Dallas	Prichard V16S PBF V16 **DAL** (L13–L14)
Dulles	Moscow V16S GHM V16 V140 MOL V251 V174 **Blue Ridge** (L14, 21, 22)
Midway	Cuba V9W V9 **JOT** (L–14, 21, 22)
New Orleans	Savage V9W GRW V9 **Madison** (L14–L17)
O'Hare	Cuba V9W V9 **JOT** (L–14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 **Ironsides** (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta	**MIA** V7 LAL V157 AMG V5 **DU** (L19–L18–L20)
Charlotte	**MIA** V7 LAL V157 ALD V37 FML (L19–L18–L20)
Chicago	**MIA** V35 FMY V7 LAL V157 AMG V51 DBN V267 TYS V97 **CGT** (L19, 20, 22, 21, 23)
Cleveland	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 **Sharon** (L19, 20, 22, 21, 23)
Detroit (city)	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 **QG** (L19, 20, 22, 21, 23)
Dulles	**Guppy** drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E **Brandy** (L19–L20–L22)
Habana	**Gary** V51 EYW drct SF/Rbn or **PRR/Rbn** B19 EYW drct SF. Rbn (L19)
Kennedy	**Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L–19, 20, 22, 24)
Jacksonville	**Martin** V3E PBI V3 DAB V3E **Shiloh** (L–19)
La Guardia	**Guppy** drct Halibut Control 1150 ILM V1W V213 **RBV** (L–19, 20, 22, 24)
● Metro Wayne Co.	**MIA** V7 LAL V157 ALD V37 PSK PSK V59 CTW V427 BSV V40 CLE V42 V103 **Lasalle** (L19, 20, 22, 21, 23)
Newark	**Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L–19, 20, 22, 24)
Pittsburgh	**MIA** V7 LAL V157 ALD V37 **AGC** (L19–L20–L22–L24)
Tampa	**MIA** V7 V35 **Hansen** (L19)
Washington	**Guppy** drct Halibut Control 1150 ILM V1 ISO V157 **Ironsides** (L–19–L20–L22)
● Willow Run	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 **Lasalle** (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 **API**; or **Taylor** V7E V116 **Surf** (L–12, 23)
Detroit	V2S MKG V2 **SVM** (L–12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 **RBV** (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	**Prescott** V2 V97 V171 V6 **API** (L–10, 11, 23)
O'Hare	**Prescott** V2 V97 **Lakewood** (L–10, 11, 23)

MONTGOMERY

Washington	**TGE** V154 MCN V56 AGS V155 V157 **Ironsides** (18, 20, 22)

NASHVILLE

LaGuardia	**Freedom** V140N LOZ V140 MOL V16N GVE V16 ENO V213 **RBV** (L21, 22, 24)
Newark	**Freedom** V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 **Rocky Hill** (L21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta	**PCU** V70 MVC V20 **Tyrone** (L17, 18, 20)
Birmingham	**PCU** V455 MEI V154 V209 BWA drct BHM/LOM (L–17, L–18, L–14)
Dallas	**Walker** V–114N AEX V–114 GGG V–94 V–477E **Forney** (L–17, 13)
Dulles	**PCU** V70 MVC V20 SBV V39 GVE V39E **Brandy** (L–17, 18, 20, 22)
Houston	**TBD** V20S LFT V20 LCH V222N **Monument** (L–17)
Kennedy	**PCU** V70 MVC V20 V213 ENO V44 **Barnegat** (L–17, 18, 20, 22, 24)
Memphis	**PCU** V9E MCB V9 GRW V9E **Independence** (L–14)
Newark	**PCU** V70 MVC V20 V213 ENO V29 V433 **Rocky Hill** (L–17, 18, 20, 22, 24)
Washington	**PCU** V70 MVC V20 SBV V39 GVE V16 **Ironsides** (L–17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	**Sound** POU V487 Brainard (L–25)
Bradley	**Sound** V433 Waterbury (L25)

From Newark only

Albany	**SAX** POU V487 Brainard (L–25)
Atlanta	**SBJ** V3 EMI V39 V140 MOL V143 V222 V35 V20N **OCR** (L24, 22, 20)
Baltimore	**SBJ** V3 V93 (L24)
Boston	**SAX** POU V58 V167 Sterling (L25)
Buffalo	**TVE** V188 V147 V36 **Dale** (L–25)
Cincinnati	**SBJ** V3 V166 V4 V174 V128 **California** (L24–22)
Cleveland	**TVE** V232 **Mentor** (L–24, 23)
Detroit (City)	**TVE** V188 TOH V147 V116 **QG** (L24, 23)
Detroit Metro Area	**TVE** V188 V147 V116 **QG** (L24, 23)
Dulles Int'l	**SBJ** V3 EMI V166 V223 **Sugar Loaf** (L24)
Indianapolis	**TVE** V232 ETG V226 V119 V210 (L24–23)
Jacksonville	**SBJ** V3 V29 SBY V1 V437 SAV V3 **St. Marys** (L24, 22, 20, 18)
Louisville	**SBJ** V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co.	**TVE** V188 TOH V147 V116 **QG** (L24, 23)
Miami	**SBJ** V3 V29 SBY V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L–24, 22, 20, 19)
Nashville	**SBJ** V3 EMI V39 V140 **Lebanon** (L24, 22, 14)
New Orleans	**SBJ** V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W **Madison** (L24, 22, 20, 14, 18)
Norfolk Metro Area	**SBJ** V3 V29 SBY VI **CCV** (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 **Warrington** (L24)
Pittsburgh	**TVE** V232 ETG V226 **EWC** (L-24)
Providence	**SAX** POU V58 V130 Lafayette (L25)
Rochester	**SAX** V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	**SAX** V483 (L-25)
Toledo	**TVE** V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	**TVE** V188 TOH V147 V116 **QG** (L24, 23)

From Kennedy only

Atlanta	**Dutch** V308 ENO V213 V20 SPA V20N **OCR** (L24, 22, 20)
Baltimore	**Dutch** V308 ENO V268 (L24)
Boston	**HTO** V139 **HTM** (L25)
Buffalo	**HUO** V126 V36 **Dale** (L-25)
Cleveland	**HUO** V126 V58 IPT V188 JFN V14 **Mentor** (L25, 24, 23)
Detroit	**HUO** V126 V116 **QG** (L25, 24, 23)
Dulles	**HUO** V39 V162 HAR V223 **Sugar Leaf** (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	**Dutch** V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
Louisville	**HUO** V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
● Metro Wayne Co.	HUO V126 BFD V172 V188 V103 **Lasalle** (L25, 24, 23)
Miami	**Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Montreal	**Sound** POU V487 (L-25, 26)
New Orleans	**Dutch** V308 OTT V16 V115 V18 V455 V455W **Madison** (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	**Dutch** V139 CCV (L-24, 22)
O'Hare	**HUO** V126 V116 V170 V84 **OBK** (L25, 24, 23)
Philadelphia	**Dutch** V312 CYN V16 V239 **OOD** (L24)
Pittsburgh	**HUO** V126 AVP V58 V226 **EWC** (L-25, 24)
Providence	**HTO** V139 (L25)
Rochester	**HUO** V249 V34 Fishers (L-25)
Syracuse	**HUO** V483 (L25)
Toronto	**HUO** V126 AVP V36 (L-25, 12)
Washington	**Dutch** V308 **North Beach** (L24, 18)
Willow Run	**HUO** V126 AVP V116 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta	**Paterson** V3 EMI V39 V140 MOL V143 V222 V35 V20N **OCR** (L24, 22, 20)
Baltimore	**Paterson** V3 V93 (L24)
Boston	**Sound** V467 MAD V475E V16 **BOS** (L25)
Buffalo	**SAX** V36 **Dale** (L-25, 12)
Cincinnati	**Paterson** V3 V166 V4 V174 V128 **California** (L24–22)
Cleveland	**SAX** TOH V188 JFN V14 **Mentor** (L-24, 23)
Columbus	**SAX** TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	**SAX** TOH V147 V116 **QG** (L24, 23)
Dulles Intl	**Paterson** V3 EMI V166 V223 **Sugar Leaf** (L24)
Indianapolis	**SAX** TOH V226 V119 V210 (L24, 23)
Louisville	**Paterson** V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	**Sound** POU V487 (L-25)
Metro Wayne Co.	**SAX** TOH V147 V116 **QG** (L24, 23)
Nashville	**Paterson** V3 EMI V39 V140 **Lebanon** (L24, 22, 14)
O'Hare	**SAX** TOH V147 V116 V170 V84 **OBK** (L24, 25)
Philadelphia	**Paterson** V3 **Warrington** (L24)
Pittsburgh	**SAX** TOH V226 **EWC** (L24)
Providence	**Sound** V467 V475E V130 **Lafayette** (L24, 25)
Rochester	**SAX** V116 AVP V29 V423 V34 Fishers (L25)
Toronto	**SAX** V36 (L-25, 12)
Washington	**Paterson** V3 ESR V140 Dayton GTN/Rbn **DCA** (L24)
Willow Run	**SAX** TOH V147 V116 **QG** (L24, 23)

NORFOLK METRO AREA

Charlotte	CVI V194 Midland (L-22, 20)
Dulles	Farnham V286 **Brandy** (L22)
Kennedy	CCV V1 **BGT** (L-22, 24)
Jacksonville	CVI V1 CHS V437 SAV V3 **St. Marys** (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 **RBV** (L-22, 24)
Newark	CCV V1 SBY V29 V433 **Rocky Hill** (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 **OOD** (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 **Ironsides** (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	**Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	**Crescent** V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 **Brooks** (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E **Shiloh** (L-19)

PHILADELPHIA METRO AREA

Baltimore	**EWT** V166 V93 (L-24)
Boston	MIV 101 rad V139 **HTM** (L24, 25)
Buffalo	**Boyer** V170 SLT ELZ V119 Burns V36 **Dale** (L-25)
Cleveland	**Boyer** V162S HAR V12 AGC V8 BSV V40 **Sharon** (L-24, 23)
Detroit (City)	**Boyer** V162S V12 V37 V103 V42 **QG** (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 **Sugar Leaf** (L24)
Kennedy	**Columbus** V123 **RBV** (L-24)
Jacksonville	**MIV** 205 rad ATR V1 V437 V3 **St. Marys** (L24, 22 20, 19)
LaGuardia	**Columbus** V213 **RBV** (L-24)
● Metro Wayne Co.	**Boyer** V162S V12 V37 V103 **Lasalle** (L24, 23)
Miami	**MIV** 205 rad ATR V1 Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark	V433 **Rocky Hill** (L-24)
Norfolk	**MIV** 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	**Boyer** V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	**EWT** V166 V140 Dayton GTN/Rbn **DCA** (L24)
● Willow Run	**Boyer** V162S V12 V37 V103 **Lasalle** (L24, 23)

PHOENIX

Albuquerque	**Lake** V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 **Harrington Ranch** (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N **Farley** (L-4, 6)

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 **Sharon** (L-23, 24)
Philadelphia	**CLN** V210 HAR V238 **ESR** (L-24)
● Willow Run	V40 V42 V103 **Lasalle** (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 **OCR** (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 **EMI** (L-24)
Boston	**Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L-24, 25)
Charleston W. Va.	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 **Niles** (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
● Detroit	V40 V42 V103 **Lasalle** (L24, 23)
Kennedy	V119 V276 **RBV** (L-24)
Indianapolis	V210; or **Kilgore** V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 **Liberty** (L24)
Newark	V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L-24)
Philadelphia	**CLN** V210 HAR V238 **ESR** (L-24)
St. Louis	**Kilgore** V210 VLA V14N **Godfrey** (L-23, 21, 6)
Washington	V103 V92 FRR V4 **HRN** (L-24)

From Allegheny Co. only

Chicago	**AGC** V8 FDY V422 CGT V7 **Niles** (L-24, 23)
Kennedy	V12 V106 Reedsville V276 **RBV** (L24)
LaGuardia	V12 V106 SEG V6 V433 **Liberty** (L24)
Newark	V12 V106 V30 **Rocky Hill** (L24)

PROVIDENCE

Kennedy	V167 V16 **RVH** (L25)
LaGuardia	V167 V3 V445 **Stamford** (L25)
Newark	V167 HFD V292 **Budd Lake** (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 **OOD** (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 **GDM** (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)
Kennedy	V147 GEE V252 BGM V270 V34 **RVH** (L25)
LaGuardia	V147 ABE V6 V433 **Liberty** (L-25)
Newark	V147 TOH V226 **Budd Lake** (L25)
Philadelphia	V147 ABE V149 V3 **Warrington** (L25-24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn **DCA** (L25-24)
●Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 **Lasalle** (L12, 23)

SAN ANTONIO

Dallas	**Mission** V17 ACT V15 **Desoto** (L-15, 17, 13)
El Paso	**Guadalupe** V222 **Rio** (L-15, 4)
Houston	**Clear Spring** V198 ELA V180 **Arcola** (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	**LIN** V113 RNO V6 MBW V100 **Lakewood** (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	**Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2, 3)
Kennedy	**LIN** V113 RNO V6 MBW V100 OBK V84 LAN V2 SVM V116 ERI V170 V276 **RBV** (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	**TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V246 **Sharon** (L-21, 23)
Columbus	**TOY** V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 **Lakeside** (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 **Justin** (L-21, 6, 13)
Indianapolis	**TOY** V12 Wilbur V11 (L-21, 23)
Kansas City	V4 **Missouri City** (L-21)
Memphis	V9 Kerrville (L-21; 14)
Midway/O'Hare	V9 **JOT** (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	**TOY** V52 EVV V4 **HRN** (L-21, 22)

SYRACUSE

Kennedy	V273 HNK V34 **RVH** (L25)
LaGuardia	V153 V29 V6 V433 **Liberty** (L25)
Newark	V273 **Budd Lake** (L25)
Philadelphia	V29 BGM V149 V3 **Warrington** (L25-24)

TAMPA METRO AREA

Atlanta	**V97W** Scallop V97 **Brooks** (L-19, 18, 20)
Miami	**Gibson** V97 **MIA** (L-19)

TORONTO

Kennedy	V34 **RVH** (L12, 25)
LaGuardia	V36 V147 V6 V433 **Liberty** (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 **JOT** (L-6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 **Lakeside** (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis	V140 FYV V72 V9 **Lemay** (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston	**Swan Point** V268 V139 **HTM** (L24-25)
Chicago	Flint Stone V8 FDY V422 **CGT** (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 **Sharon** (L-24, 23)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 18)
Kennedy	**Swan Point** V123 **RBV** (L24)
LaGuardia	**Swan Point** V123 **RBV** (L24)
Newark	**Swan Point** V433 **Rocky Hill** (L24)
Philadelphia	**Swan Point** V123 **OOD** (L24)
Pittsburgh	Flint Stone V8 **AGC** (L-24)

From Washington only

Atlanta	**CSN** V140 MOL V143 LYH V222 AVL V35 Clemson V20N **OCR** (L-22, 20)
Charleston W. Va.	**CSN** V308 V174 V4 Ivydale (L22)
Charlotte	**BRV** V3 RDU V194 Weddington (L-22, 20)
Dallas	CSN V140 BNA V16 **DAL** (L22, 21, 14, 13)
Greensboro	**CSN** V140 MOL V143 Leaksville (L-22)
Harrisburg	**Ashburn** V8N V223 (L-24)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21, 14)
Miami	BRV V3 V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	**CSN** V140 **Lebanon** (L22, 21)
New Orleans	**CSN** V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W **Madison** (L22, 20, 14, 18)
Norfolk Metro area.	**BRV** V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 **St. Marys** (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	**EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BGT** (L-24)
Jacksonville	**CSN** V39 GVE V155 FAK V3 **St. Marys** (L24)
LaGuardia	**EMI** V166 EWT V157 **RBV** (L-24)
Miami	**CSN** V39 GVE V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L22, 20. 19)
Newark	**EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia	**Braddock** HRN 354 rad V251 V238 **ESR** (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E **Langston** (L6)
Kansas City	White Water V77 TOP V4N **Farley** (L-6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Section II)

(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

Effective March 3, 1966

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

• MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

Effective June 15, 1966

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

Effective April 28, 1966

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	**CSN** V140 **Lebanon** (L22, 21)
New Orleans	**CSN** V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W **Madison** (L22, 20, 14, 18)
Norfolk Metro area	**BRV** V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 **St. Marys** (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	**EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BGT** (L-24)
Jacksonville	**CSN** V39 GVE V155 FAK V3 **St. Marys** (L24)
LaGuardia	**EMI** V166 EWT V157 **RBV** (L-24)
Miami	**CSN** V39 GVE V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L22, 20. 19)
Newark	**EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia	**Braddock** HRN 354 rad V251 V238 **ESR** (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E **Langston** (L6)
Kansas City	White Water V77 TOP V4N **Farley** (L-6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Section II)

(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

Effective March 3, 1966

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

• MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

Effective June 15, 1966

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

Effective April 28, 1966

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence

via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Philipsburg VORTAC 082 radial Philipsburg VORTAC 082 radial to Philipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**—Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transiton**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 000 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 082 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, headling 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE

SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

• ALABAMA

MOBILE "MOB" VORTAC SHUTDOWN

June 6 VORTAC will be shutdown until aprxly June 8. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V240	Dog Int to MOB VORTAC	None		
V20	GPT VOR to MOB VORTAC	GPT VOR to Tmpry MOB Int via GPT VOR 058 rad	2,000	17,500
	MOB VORTAC to MVC VOR	Tmpry MOB Int to MVC VOR via MVC VOR 226 rad	3,500	17,500
V20N	PCU VOR to MOB VORTAC	PCU VOR to Tmpry MOB Int via PCU VOR 077 rad	4,500	17,500
	MOB VORTAC to MVC VOR	None		
V11	MOB VORTAC to GCV VOR	Tmpry MOB Int to GCV VOR via GCV VOR 159 rad	2,000	17,500
V209	MOB VORTAC to EWA VOR	None		
V208	MOB VORTAC to MVC VOR	Nobe		
V242	MOB VORTAC to BFM VORTAC	Tmpry MOB Int to BFM VORTAC via BFM VORTAC 289 rad	1,400	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
Theodore Int	BFM VORTAC 236 rad and GCV VOR 151 rad	1,000
Moss Int	BFM VORTAC 236 rad and GCV VOR 172 rad	1,000
Bugle Int	GCV VOR 188 rad and BFM VORTAC 266 rad and GPT VOR 058 rad	1,500
School Int	GPT VOR 025 rad and BFM VORTAC 270 rad and PCU VOR 077 rad	1,500
Flute Int	GCV VOR 191 rad and BFM VORTAC 275 rad and PCU VOR 077 rad	2,000
Axis Int	BFM VORTAC 356 rad and GCV VOR 107 rad and MVC VOR 226 rad	2,500
Tensaw Int	BFM VORTAC 011 rad and GCV VOR 090 rad and MCV VOR 226 rad	2,000
MOB VORTAC	Tmpry MOB Int—BFM VORTAC 289 rad and GCV VOR 159 rad	1,000

All other Ints based on MOB VORTAC unusable.

JET ROUTES

	Existing Airways	Substitute Routes
J69	MOB VORTAC to BHM VORTAC	None

Existibg Reporting Points	Temporary Reporting Points
MOB VORTAC	None

• KENTUCKY

NEW HOPE VOR "EWO" SHUTDOWN

June 1 VOR will be shutdown until aprxly June 4. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V5	BWG VORTAC to EWO VOR	BWG VORTAC to Tmpry EWO Int via BWG VORTAC 039 rad	3,000	17,500

Continued on next pgae

Airways	Existing Airways	Substitute Routes	MEA	MAA
V5–51W	EWO VOR to LOU VORTAC	Tmpry EWO Int to LOU VORTAC via LOU VORTAC 188 rad	2,500	17,500
V178...	CCT VOR to EWO VOR	CCT VOR to Tmpry EWO Int via CCT VOR 075 rad	5,000	17,500
V178...	EWO VOR to LEX VORTAC	Tmpry EWO Int to LEX VORTAC via LEX VORTAC 251 rad	3,000	17,500
V51W..	HIY VOR to EWO VOR	None		
V5E....	BNA VORTAC to EWO VOR	None		

Existing Reporting Point	Temporary Reporting Point	MRA
EWO VOR	Tmpry EWO Int—	
	LOU VORTAC 188 rad and	2,500
	LEX VORTAC 251 rad and	3,000
	BWG VORTAC 039 rad and	3,000
	CCT VOR 075 rad	

MICHIGAN

PULLMAN "PMM" VORTAC SHUTDOWN

May 30. VORTAC will be shut down til aprxly June 8. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V55....	ELX VOR to PMM VOR	ELX VOR to Tmpry PMM Int via ELX 002 rad	2 500	17 500
V55....	MKG VOR to PMM VOR	MKG VOR to Tmpry PMM Int via MKG 185 rad	3 700	17 500
V193...	Comstock Int to PMM VOR	None		
V193...	Musky Int to PMM	None		
V274...	GRR VOR to PMM VOR	to Tmpry PMM Int via GRR 236 rad	2 700	17 500
V84....	LAN VOR to PMM VOR	LAN VOR to Tmpry Orangeville Int via LAN 258 rad	2 900	17 500
		Tmpry Orangeville Int to Tmpry PMM Int via LAN 258 rad	4 000	11 500
V170...	Leslie Int to PMM VOR	Leslie Int to Bellevue Int via SVM 276 rad	5 000	17 500
		Bellevue Int to Tmpry PMM Int via SVM 276 rad	10 000	17 500
V84....	Midlake Int to PMM VOR VOR	Midlake Int to Tmpry PMM Int via OBK 076 rad	6 000	17 500
V30....	Mendon Int to PMM VOR	Mendon Int to Tmpry PMM Int via LFD 293 rad	4 000	17 500
V30/170.	Sunfish Int to PMM VOR	None		
V308...	Braves Int to PMM VOR	None		

Existing Reporting Points	Substitute Reporting Points	MRA
Pullman VOR	ELX 002 rad and GRR 236 rad	2 500
James Int	GRR 285 rad and MKG 155 rad	2 500
Cooper Int	ELX 061 rad and AZO 320 rad	3 000
Orangeville Int	BTL 335 rad and LAN 258 rad	2 900
Bullfrog Int	MKG 253 rad and ELX 344 rad	4 000
Tadpole Int	OBK 076 rad and ELX 306 rad	4 500
Minnow Int	MKG 270 rad and ELX 330 rad	4 500
Sunfish Int	None	
Salmon Int	None	
Paw Paw Int	None	

Jet Routes

Routes	Existing Routes	Substitute Routes	MEA	MAA
J94....	ECK VOR to PMM VOR	ECK VOR to Tmpry PMM Int via ECK 258 rad	FL 240	450
J70....	QG VOR to PMM VOR	QG VOR to Tmpry PMM Int via QG 279 rad	FL 200	450
J34....	CLE VOR to PMM VOR	CLE VOR to Tmpry PMM Int via CLE 277 rad and VWV 302 rad	FL 200	450
J94....	OBK VOR to PMM VOR	OBK VOR to Tmpry PMM Int via OBK 076 rad	FL 180	450
J34/70.	MKE VOR to PMM VOR	MKE VOR to Tmpry PMM Int via MKE 109 rad	FL 180	450

Existing Reporting Points	Substitute Reporting Points	MRA
PMM VOR	OBK 076 rad and FWA 336 rad	FL 180

• MISSOURI

ST. JOSEPH "STJ" VORTAC SHUTDOWN

VOR will be shut down June 6 til aprxly June 10. For substitute route structure during shutdown use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V15....	EOL VOR to STJ VOR	EOL VOR to Tmpry STJ Int via EOL VOR 150 rad	7,500	17,500
V15/205	MKC VOR to STJ VOR	MKC VOR to Tmpry STJ Int via MKC VOR 331 rad	4,000	17,500
V50....	PWE VOR to STJ VOR	PWE VOR to Tmpry STJ Int via PWE VOR 094 rad	4,000	17,500
V60....	IRK VOR to STJ VOR	IRK VOR to Tmpry STJ Int via IRK VOR 259 rad	10,000	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V65/77	LMN VOR to STJ VOR	LMN VOR to Tmpry STJ Int via LMN VOR 222 rad	4,000	17,500
V77	TOP VOR to STJ VOR	TOP VOR to Tmpry STJ Int via TOP VOR 022 rad	4,000	17,5000
V205	OMA VOR to STJ VOR	OMA VOR to Tmpry STJ Int via OMA VOR 116 rad to Emerson Int thence EOL VOR 150 rad	7,500	17,500
V65	STJ VOR to V4S/10	None		

Existing Reporting Points	Temporary Reporting Points	MRA
STJ VOR	Tmpry STJ Int—PWE VOR 094 rad and MKC VOR 331 rad	4,000
Skidmore Int	EOL VOR 150 rad and PWE VOR 077 rad	6,500
Winchester Int	TOP VOR 056 rad and BSP VOR 277 rad	2,500
Springdale Int	Top VOR 071 rad and BUM VOR 320 rad	4,100
Lawrence Int	TOP VOR 091 rad and BUM VOR 317 rad	3,800
Lansing Int	MKC VOR 251 rad and BSP VOR 284 rad	2,400
Plattsburg Int	MKC VOR 012 rad and BSP VOR 339 rad	2,400
Farley Int	MKC VOR 266 rad and BUM VOR 337 rad	3,800
New Market Int	MKC VOR 302 rad and TOP VOR 046 rad	2,700
Emerson Int	EOL VOR 150 rad and OMA VOR 116 rad	3,000
Coin Int	EOL VOR 150 rad and PWE VOR 046 rad	4,000

• MONTANA

DRUMMOND "DRU" VOR SHUTDOWN

May 31, VOR will be shutdown until aprxly June 30. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V2	MSO VOR to DRU VOR	MSO VOR to Tmpry DRU Int via MSO VOR 093 rad	15,000	17,500
	DRU VOR to HLN VOR	Tmpry DRU Int to HLN VOR via HLN VOR 253 rad	12,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
DRU VOR	Tmpry DRU Int—BTM VOR 313 rad and HLN VOR 253 rad	12,000
Garrison Int	HLN VOR 253 rad and BTM VOR 343 rad	12,000

OHIO

BRIGGS "BSV" VORTAC SHUTDOWN

Due to unusable sectors, following substitute route is efctv immediately

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V40,75	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,75,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BSV VORTAC	Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad	3,100

DAYTON "DAY" VORTAC SHUTDOWN

May 17, VORTAC shutdown until aprxly May 27. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MRA
V12, 75W	RID VOR DAY VORTAC	RID VOR to DAY Int via RID VOR 053 rad	5,500	17,500
V12	DAY VOR to APE VORTAC	DAY Int to APE VORTAC via APE VORTAC 267 rad	5,500	17,500
V275	FDY VOR to DAY VORTAC	FDY VOR to ROD VORTAC via FDY VOR 215 and ROD VORTAC 360 rad	2,800	17,500
V275	DAY VORTAC to CVG VORTAC	ROD VORTAC to CVG via ROC VORTAC 220 rad and CVG VORTAC 006 rad	3,000	17,500
V55	FWA VORTAC to DAY VORTAC	FWA VORTAC to DAY Int FWA VORTAC 148 rad	6,000	17,500
V12N	DAY VORTAC to Grindell Int	None		
V50	IND VORTAC to DAY VORTAC	IND VORTAC to DAY Int via IND VORTAC 083 rad and RID VOR 053 rad	9,000	17,500
V50N	DAY VORTAC to Cowan Int	DAY VORTAC to Cowan Int via the 293 brg from TPC RBn and MZZ VOR 117 rad and V-210	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
DAY VORTAC	Tmpry DAY Int—RID VOR 053 rad and FWA VORTAC 148 rad and APE VORTAC 267 rad	6,000 5,500
Dawn Int	ROD 262 rad and RID 025 rad	2,800

Continued on next page

SUBSTITUTE ROUTE STRUCTURE

Existing Reporting Points	Temporary Reporting Points	MRA
Mt. Holly Int	CVG 045 rad and RID 118 rad	2,700
Mechanicsburg Int	ROD 122 rad and APE 267 rad	2,500
South Solon Int	APE 246 rad and ROD 150 rad	300

High Altitude

Routes	Existing Routes	Substitute Routes	MEA	MAA
J29	EVV VORTAC to CLE VORTAC	EVV VORTAC to CLE VORTAC via EVV VORTAC 046 rad and ROD VORTAC 230 rad to ROD thence via ROD VORTAC 954 rad and CLE VORTAC 237 rad to CLE.	240	410
J43	LEX VORTAC to DAY VORTAC	LEX VORTAC to ROD VORTAC via LEX VORTAC 002 rad and ROD VORTAC 190 rad.	240	410
J43	RTA VORTAC to Detroit	None		

Existing Reporting Points	Temporary Reporting Point	MEA	MAA
J39.... LOU VORTAC to DAY VORTAC	LOU VORTAC to ROD VORTAC via LOU VORTAC 027 rad and ROD VORTAC 210 rad.	240	410
DAY VORTAC	Tmpry DAY Int—RID rad FWA VORTAC 148 rad APE VORTAC 267 rad APE VORTAC 267 rad	240	410

Existing Reporting Points	Temporary Reporting Points	MRA
FDY VOR	Tmpry FDY Int—VWV VORTAC 192 rad and ATO VORTAC 261 rad	3,000
Upper Sandusky Int	MFD VORTAC 279 rad and VWV VORTAC 150 rad	3,000
Neeker Int	MFD VORTAC 246 rad and APZ VORTAC 314 rad	3,000
Grindell Int	None	
Coldwater Int	None	
Rockford Int	None	
Antwerp Int	None	
McClure Int	None	
Custar Int	VWV VORTAC 192 rad and ATO VORTAC 283 rad	3,000

VIRGINIA

PULASKI "PSK" VORTAC SHUTDOWN

Tmpry VOR comsnd. Ident: PSK. Freq: 115.9, Class: H–VORW. during indefinite shutdown of Pulaski VORTAC. For substitute route structure use the follows:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–37	PSK VOR to Frankford Int.	Via Tmpry PSK VOR 016 rad to Frankford Int.	6,000 PSK–Zenith 8,000 Zenith–Frankford MRA 17,500	

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–16	PSK VOR to ROA VOR	Via Tmpry PSK VOR 070 rad to midpoint	5,000	17,500
V–136	PSK VOR to Table Int	Via Tmpry PSK VOR 101 rad to Table Int	5,500	17,500
V–46	PSK VOR to Francisco Int	Via Tmpry PSK VOR 154 rad to Francisco Int.	6,000	17,500
V–37	PSK VOR to COP	Via Tmpry PSK VOR 189 rad to COP	7,000	17,500
COP 40 NM from PSK VOR & 86 NM from FML VOR				
V–37W	PSK VOR to HKY VOR	Via Tmpry PSK VOR 202 rad and HKY VOR 021 rad	5,500	17,500
V–6	PSK VOR to Sugar Grove Int	Via Tmpry PSK VOR 242 rad to Sugar Grove Int	7,700	17,500
V–16N	PSK VOR to BLA VOR	Via Tmpry PSK VOR 258 rad to midpoint	6,600	17,500
V–46	PSK VOR to BLF VOR	Via Tmpry PSK VOR 295 rad and BLF VOR 115 rad	6,000	17,500
V–59	PSK VOR to BKW VOR	Via Tmpry PSK VOR 335 rad to midpoint	6,000	17,500

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J–22	TYS VOR to PSK VOR	TYS 064 rad and Tmpry PSK VOR 249 rad	FL180	FL450
	PSK VOR to GVE VOR	Tmpry PSK VOR 068 rad and GVE VOR 252 rad	FL180	FL450
J–48	EMI VOR to PSK VOR	EMI VOR 240 rad and Tmpry PSK VOR 054 rad	FL180	FL450
J–53	AGC VOR to PSK VOR	AGC VOR 195 rad and Tmpry PSK VOR 012 rad	FL180	FL450
	PSK VOR to SPA VOR	Tmpry PSK VOR 209 rad and SPA VOR 026 rad	FL180	FL450

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VOR	Tmpry PSK VOR	5,000
Zenith Int	Tmpry PSK VOR 016 rad and CLD VOR 255 rad and ROA 292 rad	6,000
Table Int	Tmpry PSK VOR 101 rad and ROA VOR 181 rad	5,500
Willis Int	None	
Lindside Int	Tmpry PSK VOR 035 rad and ROA VOR 292 rad.	6,000
Saw Mill Int	Tmpry PSK VOR 189 rad and BLF VOR 148 rad	7,000
Burch Int	None	
Max Meadows Int	Tmpry PSK VOR 242 rad and BLF VOR 157 rad	7,700
Bland Int	Tmpry PSK VOR 258 rad and and BLF VOR 157 rad	6,600
Hicksville Int	BLF VOR 115 rad and BKW VOR 177 rad	6,000

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SECTIONAL CHART BULLETIN

· The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

ABERDEEN

41st Edition, March 3, 1966

Add obstn 1613' MSL 45°48'46''N, 97°51'17''W. Add UNICOM Pierre arpt 44°23'N, 100°17'W.

•ALBANY

56th Edition, February 3, 1966

No hazardous changes. Delete Watkins Glen VOR 42°26'04.9''N, 76°47'04.3''W. Delete University RBn 43°07'26''N, 77°37'42''W. Delete Smith Field arpt 42°32'N, 73°24'W. Add obstn 1445' MSL 42°27'29''N, 75°00'20''W. Relocate Keene non-federal RBn from 40°50'45''N, 72°16'20''W to 42°52'16''N, 72°16'21''W. Delete Greenleaf arpt 43°15'N, 77°38'W. Delete UNICOM Webber arpt 42°09'45''N, 73°50'15'W. Add Avon RBn freq 344 ident AVN class MHW 43°00'34''N, 77°46'12''W.

•ALBUQUERQUE

56th Edition, March 3, 1966

Add V291 awy Grants to Gallup (282°M from Grants). Delete Crownpoint VOR symbol and type in western border.

AROOSTOCK

43rd Edition, April 28, 1966

No hazardous changes.

AUSTIN

61st Edition, April 28, 1966

Change Hood AAF twr freq from 118.6 to 126.2.

•BEAUMONT

55th Edition, March 31, 1966

Delete Franklinton arpt 30°50'39''N, 90°09'30''W. Add obstn 750' MSL 31°29'12''N, 91°21'42''W. Add obstn 364' MSL 30°07'54''N, 92°48'02''W. Add obstn 462' MSL 30°07'56''N, 91°46'25''W. Delete McDonald arpt 30°59'00''N, 92°36'00''W. Add obstn 331' MSL 30°04'15''N, 90°37'06''W. Add obstn 525' MSL 30°50'41''N, 90°22'35''W. Delete Progress arpt 31°03'N, 90°19'W.

•BELLINGHAM

53rd Edition, May 26, 1966

No hazardous changes.

•BIRMINGHAM

61st Edition, April 28, 1966

Add UNICOM Stone Mountain arpt 33°48'40''N, 84°07'10''W. Change De Kalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 798' MSL 33°47'48''N, 87°20'32''W. Change Anniston RBn freq 329 to 278. Add obstn 702' MSL 31°54'55''N, 87°44'W. Delete Prattville RBn 32°28'N, 86°25'W.

•BOISE

42nd Edition, May 26, 1966

No hazardous changes.

•BOSTON

57th Edition, March 3, 1966

Add obstn 585' MSL 41°49'40''N, 71°22'09''W. Delete Lewiston non-federal RBn 44°02'56''N, 70°17'16''W. Add New Gloucester non-federal RBn freq 266 ident GLU Class MHW 43°59'13''N, 70°19'29''W. Extend efctv time of designation of R-4902 through Oct 31, 1966. Ctl twr decomsnd Devens AAF.

•BURLINGTON

46th Edition, April 28, 1966

Add obstn 430' MSL 45°04'42''N, 74°46'18''W.

BUTTE

45th Edition, February 3, 1966

Add awy bcn code ● — — 46°32'29''N, 111°42'39''W. Add awy bcn 46°51'15''N, 111°57'12''W. Add awy bcn code ● ● ● ● 47°02'N, 111°57'W. Add awy bcn code ● — 47°11'06''N, 111°48'00''W. Add awy bcn code ● ● — 46°44'45''N, 113°36'30''W. Add awy bcn code — ● ● 46°32'52''N, 112°38'08''W. Add awy bcn code — — ● 46°19'N, 112°04'W. Add awy bcn code — ● ● ● 46°-04'56''N, 112°08'16''W. Delete ctl twr freq 278 Great Falls Intnl.

CASPER

51st Edition, March 31, 1966

No hazardous changes.

●CHARLOTTE SECTIONAL CHART

58th Edition, April 28, 1966

Delete Lumberton RBn 34°36'N, 79°04'W. Add 700' floor ctld airspace bounded on S by Asheville 1200' TA on NE by V185E on NW by V16S and on SW by V185.

●CHATTANOOGA

57th Edition, February 3, 1966

Add obstn 820' MSL 35°30'43''N, 88°52'06''W. Change DeKalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 885' MSL 35°55'12''N, 88°46'15''W. Add obstn 3049' MSL 34°45'06''N, 84°42'54''W. Add obstn 1004' MSL 34°51'28''N, 80°14'20''W. Add obstn 1434' MSL 34°16'11''N, 85°59'37''W. Add obstn 717' MSL 36°04'57''N, 87°50'04''W. Delete Oak Ridge arpt 36°02'N, 84°18'W. Add Harris VOR freq 110.4 ident HRS class L-BVOR mag var 0° 34°56'34''N, 83°54'57''W. Delete Van Hooser arpt 35°56'30''N, 85°49'W.

CHEYENNE

53rd Edition, December 9, 1965

Delete Little King Ranch arpt 40°16'N, 106°08'W. Delete Loveland arpt 40°25'N, 105°07'W. Delete Grieve Ranch arpt 41°01'N, 107°23'W. Delete Christman arpt and add aband symbol 40°36'N, 105°09'W. Add obstn 4530' MSL 41°09'40''N, 102°59'34''W.

●CHICAGO

62nd Edition, May 26, 1966

No hazardous changes.

●CINCINNATI

61st Edition, February 3, 1966

Add Matton VOR freq 109.4 ident MTO class T/BVOR mag var 3°E 39°28'40''N, 88°17'11''W. Delete Lairds arpt 39°40'25''N, 84°47'45''W. Delete Waco arpt 40°-01'N, 84°13'W. Add ctl zone 5 mi radius Civic Memorial arpt 38°53'N, 90°03'W with 7 mi N & 8 mi E extsns ctl zone efctv 0700 to 2300 hrs daily. Add UNICOM Mettel arpt 39°41'N, 85°08'W. Add UNICOM Robinson arpt 39°00'45''N, 87°38'45''W. Twr comsnd Decatur arpt freq 118.9 39°50'N, 88°52'W. Relocate Terre Haute RBn from 39°30'N, 87°14'W to 39°23'16''N, 87°23'51''W freq 245 change ident HUF to HU class MHW/LOM. Add V313 Cape Girardeau to Centralia (191°M from Centralia), to Decatur to Pontiac. Add Madeira RBn freq 379 ident MDE class MHW 39°13'10''N, 84°21'25''W. Add obstn 1054' MSL 39°01'40''N, 87°45'29''W. Delete Beltzhoover arpt 39°21'N, 84°09'W. Relocate Springfield RBn from 39°46'19''N, 89°44'09''W to 39°46'23''N, 89°45'35''W freq 379 change ident SPI to SP class MHW/LOM. Add obstn 1130' MSL 39°37'23''N, 87°40'24''W. Add UNICOM Salem Muni arpt 38°36'N, 86°08'W. Add UNICOM St. Charles arpt 38°51'N, 90°30'W.

●CLEVELAND

62nd Edition, May 26, 1966

No hazardous changes.

●CORPUS CHRISTI

56th Edition, February 3, 1966

Add obstn 550' MSL 27°40'29''N, 98°05'00''W. Add obstn 430' MSL 27°17'30''N, 98°07'16''W. Delete Mission Aero arpt 26°12'30''N, 98°21'45''W. Add obstn 630' MSL 26°39'01''N, 98°27'39''W.

DALLAS

62nd Edition, February 3, 1966

Delete Whaley arpt 33°35'N, 97°13'W. Add obstn 1180' MSL 32°26'21''N, 97°19'12''W. Change Dyess RBn class MHW 32°20'10''N, 99°50'04''W. Add UNICOM Olney arpt 33°21'N, 98°49'W.

●DEL RIO

41st Edition, November 11, 1965

Add UNICOM Presido arpt 29°34'N, 104°22'W.

●DENVER

55th Edition, December 9, 1965

Delete Holly arpt 38°02'N, 102°07'W. Delete Trading Post arpt 38°40'N, 102°48'W. Delete Lowry VOR 39°-42'N, 104°45'W. Delete Crystal Meadows arpt 39°04'N, 107°13'W. Add Buckley VOR freq 112.7 ident BKF class L–VOR mag var 13° E 39°42'09''N, 104°45'24''W. Add obstn 6156' MSL 39°33'47''N, 104°55'46''W. Delete Buena Vista arpt 38°49'20''N, 106°09'10''W.

●DES MOINES

55th Edition, April 28, 1966

Delete Vander Wilt arpt 41°23'N, 92°48'W.

●DETROIT

60th EDITION, January 6, 1966

Delete Madison Heights RBn 42°29'41''N, 83°05'37''W. Twr comsnd Tri-City arpt freq 120.1. Delete Saginaw RBn 43°31'53''N, 84°05'17''W. Delete freq 122.5R &

add freq 134.1 R-4208 Selfridge AFB Military Climb Corridor. Add obstn 2450' MSL 41°57'58"N, 78°41'38"W. Delete Orangeville arpt 43°54'N, 80°01'W. Change Olean non-federal RBn hours of opern to 0700–2200.

DOUGLAS

43rd Edition, October 14, 1965

Add Fort Huachuca Ariz ctl zone 5 mi radius Libby AAF arpt 31°35'N, 110°20'W with SE extsn. Delete Vail FM 32°04'N, 110°40'W. Change Douglas VOR freq from 110.0 to 108.8 VOR relocated from 31°30'47.1"N, 109°40'15.7"W to 31°28'21.3"N, 109°36' 05.0" W.

●DUBUQUE

51st Edition, March 31, 1966

Add control zone 5 mi radius Fairmont arpt with a NW and SE extsns ctl zone efctv by NOTAM's. Add UNICOM Denison arpt 41°59'N, 95°23'W. Change Ames RBn freq 257 to 275 41°59'40"N, 93°37'34"W. Add obstn 1484' MSL 43°37'45"N, 94°30'30"W.

●DULUTH

39th Edition, July 22, 1965

Add obstn 1750' MSL 46°26'30"N, 94°22'49"W. Add obstn 1923' MSL 46°28'47"N, 89°55'28"W. Add obstn 1743' MSL 47°18'55"N, 92°12'39"W. Add obstn 1835' MSL 46°57'29"N, 95°06'12"W. Add obstn 1633' MSL 46°40'47"N, 93°56'14"W. Add Ironwood VOR freq 108.8 ident IDW class L/BVOR mag var 3°E 46°31"56"N, 90°07'33"W. Add ctl zone 5 mi radius Gegebic Co arpt 46°31'N, 90°08'W with E & W extsns ctl zone efctv by NOTAMS. Add V430 & V191 awy from Ironwood to Duluth. Add Fergus Falls VOR freq 110.4 ident FFM class T/BVOR mag var 8°E 46°17'23"N, 96°09'23"W. Add obstn 1835' MSL 45°55'39"N, 90°27'42"W.

●ELKO

46th Edition, May 26, 1966

No hazardous changes.

●EL PASO

55th Edition, March 3, 1966

Delete ILS Biggs AFB ctl twr 31°51'N, 106°23'W.

FARGO

44th Edition, March 3, 1966

Add obstn 1718' MSL 46°16'10"N, 97°40'34"W. Add Fergus Falls VOR freq 110.4 ident FFM class T/BVOR mag var 8°E 46°17'23"N, 96°09'23"W.

GLACIER PARK

38th Edition, Octber 14, 1965

Delete Cameron Ranch arpt 49°55'N, 112°22'W. Add V536 airway from Great Falls to Kalispell (Kalispell lctn 48°12'50"N, 114°10'29"W).

●GRAND CANYON

42nd Edition, May 26, 1966

No hazardous changes.

●GRAND JUNCTION

44th Edition, May 26, 1966

No hazardous changes.

●GREEN BAY

53rd Edition, May 26, 1966

No hazardous changes.

●HAWAIIAN ISLAND

18th Edition, December 9, 1965

Change Maui ctl twr freqs from 118.1 257.8 to 118.7 279.6.

HUNTINGTON

55th Edition, February 3, 1966

Add UNICOM Connellsville arpt 39°58'N, 79°39'W. Delete Thomas arpt 39°35'N, 82°59'W. Delete Wilson arpt 38°55'N, 77°53'W. Add obstn 1375' MSL 38°22' 08"N, 81°49'14"W. Add UNICOM Newark Mun arpt 40°01'30"N, 82°27'30"W. Add obstn 1367' MSL 39°38' 04"N, 82°22'33"W.

●JACKSONVILLE

54th Edition, April 28, 1966

Delete 77 Sunsweet arpt 31°35'N, 83°34'W.

●KANSAS CITY

57th Edition, February 3, 1966

Add obstn 1424' MSL 39°44'42"N, 94°45'06"W. Add obstn 1240' MSL 38°46'11"N, 92°17'38"W. Add obstn 1175' MSL 38°24'47"N, 90°31'23"W. Add obstn 1087' MSL 38°15'38"N, 93°47'47"W. Add obstn 968' MSL 39°34'53"N, 90°47'52"W. Delete McConnell arpt 39°58'N, 92°11'W. Add ctl zone 5 mi radius Civic Memorial arpt 38°53'N, 90°03'W with 7 mi N & 8 mi E extsn ctl zone efctv 0700 to 2300 hrs daily. Add obstn 1300' MSL 39°38'21"N, 93°33'27"W. Add obstn 1252' MSL 38°38' 57"N, 95°33'59"W. Add UNICOM Mexico Memorial arpt 39°09'N, 91°49'W. Add UNICOM St. Charles arpt 38°51'N, 90°30'W. Add obstn 1305' MSL 38°57'11"N, 92°45'24"W. Add obstn 1309' MSL 38°40'00"N, 93°15' 10"W. Add UNICOM Marshall arpt 39°06'N, 93°12'W. Add obstn 1138' MSL 38°57'21"N, 92°16'14"W. Delete Paola FM 38°36'N, 94°53'W. Delete Eastside arpt and add aband symbol and type 39°47'N, 94°48'W.

●KLAMATH FALLS

54th Edition, March 31, 1966

Add UNICOM Florence arpt 43°59'N, 124°06'W.

•KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06'N, 119°46'W. Add Castlegar FM code — — — 49°19'N, 117°38'W.

•LA GRANDE

44th Edition, February 3, 1966

Delete Long Creek arpt 44°46'N, 119°06'W. Delete ctl twr freq 278 Pendleton Muni.

•LAKE HURON

41st Edition, May 26, 1966

No hazardous changes.

•LAKE SUPERIOR

43rd Edition, March 3, 1966

Add obstn 1110' MSL 46°19'00''N, 85°30'48''W. Add UNICOM Manitowish Waters arpt 46°07'N, 89°53'W.

Add obstn 1086' MSL 46°21'18''N, 86°11'03''W. Delete Iron Mountain VOR in southern border also all awys from Iron Mountain to next station.

LAKE OF THE WOODS

38th Edition, August 19, 1965

Add obstn 1243' MSL 48°50'38''N, 95°43'48''.

•LEWISTON

45th Edition, April 28, 1966

Change Pennfield Ridge RBn freq 379 to 388. Delete Lewiston non-federal RBn 44°02'56''N, 70°17'16''W. Add New Gloucester non-federal RBn freq 266 ident GLU class MHW 43°59'13''N, 70°19'29''W.

LINCOLN

54th Edition, March 31, 1966

No hazardous changes.

•LITTLE ROCK

49th EDITION, January 6, 1966

Change Reeves arpt elev 1050' to 1505' 36°03'N, 93°42'W. Delete Christ's 40 Acres arpt 34°31'N, 94°56'W. Restore Muskogee RBn sym 35°41'38''N, 95°22'47''W. Add T-line and type "CAUTION" 35°33'00''N, 95°09'53''W. Add obstn 1490' MSL 34°30'13''N, 93°04'46''W.

•LOS ANGELES

61st Edition, March 3, 1966

Delete ctl twr freq 257.8 at Meadows. Add obstn 400' MSL UC 33°44'17''N, 118°23'48''W. Change Hawthorne ctl twr freq 257.8 to 385.5. Add Van Nuys VOR freq 113.1 ident VNY class L–VOR Mag var 15°E 34°13'25''N, 118°29'27''W. Relocate Ontario VOR from 33°56'11''N, 117°36'11''W to 33°55'06''N, 117°31'44''W adjust arwys and change freq 117.0 to 112.2. Change Palmdale AF Plant No. 42 ctl twr freq 120.5 to 120.4

•MIAMI

53rd Edition, March 31, 1966

Add obstn 650' MSL 28°00'45''N, 81°45'45''W. Change Marathon RBn freq 360 to 260. Delete Keats arpt 27°34'38''N, 80°50'32''W. Delete Dressel arpt 27°15'58''N, 81°19'11''W. Add obstn 328' MSL 26°22'45''N, 81°22'03''W. Add obstn 248' MSL 26°56'27''N, 81°18'38''W. Add obstn 413' MSL 25°26'07''N, 80°19'51''W. Delete Hobbs arpt 26°47'N, 82°02'W. Delete Bob Paul arpt 26°41'N, 81°27'W. Add 700' Transition Area 5 mi radius of Lakeland arpt 27°59'N, 82°01'W and 5 mi NW 8 mi SE of Lakeland VOR bearing 233°T to 12 mi SW of VOR.

MILES CITY

45th Edition, April 28, 1966

No hazardous changes.

•MILWAUKEE

60th Edition, May 26, 1966

No hazardous changes.

MINOT

43rd Edition, March 3, 1966

Add obstn 1830' MSL 48°43'12''N 101°12'30''W. Add obstn 1310' MSL 48°25'30''N, 97°26'45''W.

•MOBILE

58th Edition, February 3, 1966

Revise Restricted Area Tab back of chart deleting R–2912A & R–2912B information & add R–2912 Panama City Fla alt 700' to 5000' (vertical airspace not to exceed 2000 consecutive ft at one time) Time 0600 to 1800 Mon thru Fri ctling agency FAA Jacksonville ARTC Center or area FSS using agency Comdr Tyndall AFB Fla. Change Shell AHP twr freq 139.08 to 139.20. Change Lowe AHP twr freq 247.0 to 237.3. Add obstn 702' MSL 31°54'55''N, 87°44'00''W. Add obstn 693' MSL 31°36°45''N, 87°41'10''W. Add obstn 520 MSL 30°55'50''N, 88°08'41''W. Add obstn 719' MSL 31°25'30''N, 87°06'29''W. Delete Pittman arpt 30°56'00''N, 87°05'30''W. Add obstn 614' MSL 31°37'04''N, 84°10'50''W. Add obstn 213' MSL 30°15'58''N, 85°41'56''W. Add obstn 645' MSL 30°46'30''N, 86°35'48''W. Add obstn 730' MSL 31°31'36''N, 86°53'05''W. Add obstn 512' UC MSL 30°30'07''N, 86°26'42''W. Add obstn 546' MSL 31°41'46''N, 88°38'32''W.

•MT. SHASTA

55th Edition, May 26,1966

No hazardous changes.

MT. WHITNEY

56th Edition, January 6, 1966

Delete Caliente FS arpt 37°36'N, 114°51'W.

•NASHVILLE

56th Edition, January 6, 1966

Delete Oak Ridge arpt 36°02'N, 84°18'W. Delete TVA Elkhorn arpt 36°21'N, 88°10'W. Add V313 awy Malden to Cape Girardeau to Centralia. Add V313E awy Cape Girardeau to Marion to Centralia Realign V190 awy from Farmington to Evansville via Marion. Add obstn 885' MSL 35°55'12"N, 88°46'15"W. Delete Streeval arpt 37°09'N, 85°12'W. Add obstn 717' MSL 36°04'57" N, 87°50'04"W. Delete Van Hooser arpt 35°56'30"N, 85°49'W.

•NEW ORLEANS

59th Edition, March 31, 1966

Add obstn 364' MSL 30°07'54"N, 92°48'02"W. Add obstn 462 MSL 30°07'56"N, 91°46'25"W. Add obstn 370' MSL 29°15'20"N, 89°21'24"W. Add obstn 501' MSL 29°16'26"N, 90°38'48"W.

•NEW YORK

64th Edition, March 31, 1966

Add obstn 1062' MSL 40°37'13"N, 75°17'37"W. Add UNICOM Alexandria Field arpt 40°35'15"N, 75°01'00"W. Delete Old Star arpt 40°11'00"N, 74°52'45"W. Change Lancaster Control Tower freq 257.8 to 263.0. Change Westchester Co. ctl twr freq 350.2 to 241.0. Twr comsnd NAS Lakehurst East Field freq 142.74 and 340.2 40°01'30"N, 74°19'15"W. Change Olmstead AFB twr hours of opern to 0700–2300.

•NORFOLK

58th Edition, March 3, 1966

Delete New Bern RBn 35°04'N, 77°02'W. Add obstn 365' MSL 35°41'50"N, 77°38'24"W. Add UNICOM Suffolk Muni arpt 36°40'N, 76°36'W.

•OKLAHOMA CITY

59th Edition, April 28, 1966

Add obstn 2770' MSL 35°25'25"N, 99°50'30"W. Delete aband apt symbol & type 34°14'N, 98°44'W.

ORLANDO

55th Edition, April 28, 1966

Add obstn 2770' MSL 35°25'25"N, 99°50'30"W. Delete aband arpt symbol and type 34°14'N, 98°44'W.

PHOENIX

54th EDITION, January 6, 1966

Delete Grapevine arpt 33°38'N, 111°03'W. Delete Duncan arpt 32°42'N, 109°08'W. Delete Whitewater Mesa arpt 33°22'N, 108°52'W.

POCATELLO

51st Edition, March 31, 1966

No hazardous changes.

PORTLAND

54th Edition, February 3, 1966

Correct Portland RBn ident PO to PDX 45°38'30"N, 122°35'55"W. Delete awy bcn site No. 4 code • • • • 45°41'30"N, 121°49'05"W. Delete awy bcn site No. 6B code — • — 45°41'00"N, 121°21'30"W.

PRESCOTT

45th Edition, March 31, 1966

No hazardous changes.

RAPID CITY

43rd Edition, December 9, 1965

No hazardous changes.

•RENO

45th EDITION, January 6, 1966

Add ctl zone 5 mi radius of Tonopah arpt 38°03'N, 117°05'W.

ROSWELL

54th EDITION, January 6, 1966

Delete Carrizozo arpt 33°39'N, 105°52'W.

•SACRAMENTO

55th EDITION, January 6 ,1966

Add Concord VOR freq 110.6 ident CCR class T-BVOR mag var 17°E 38°02'42"N, 122°02'38"W. Change NAS Alameda ctl twr freq 360.2 to 340.2. Delete McClellan AFB VOR 38°44'45"N, 121°23'49"W. Add 9500' MSL floor Transition area North of Ukiah VOR bounded on the west by V27 on the east by V199. Add UNICOM Sonoma Co. arpt 38°31'N, 122°49'W.

ST. LOUIS LOCAL CHART

34th Edition, February 3, 1966

Change mag var note to read 5°E.

•SALINA

54th Edition, March 31, 1966

Delete Downs arpt 39°31'N, 98°33'W. Add obstn 1775' MSL 38°38'16"N, 96°57'57"W. Add obstn 2338' MSL 39°45'52"N, 99°18'15"W.

•SALT LAKE CITY

53rd Edition, May 26, 1966

No hazardous changes.

•SAN ANTONIO

57th EDITION, January 6, 1966

Delete Matagorda Island (AF) RBn 215 MGI — — — — • • • 28°19'21"N, 96°27'42"W. Add Industry VOR freq 110.2 ident IDU class L-VOR mag var 8°E 29°57'21"N, 96°33'43"W. Change Matagorda Island

(AF) ctl twr hours of opern from 0800–1630 to 0815–1615. Change Ellington AFB Military Climb Corridor R–6310 freqs 119.1 122.5R 379.1 to 120.2 and 290.2 Delete Cotulla RBn 28°27'10''N, 99°13'00''W. Delete Humble arpt 29°59'N, 95°17'W. Delete Dilley arpt 28°41'N, 99°-11'W. Delete Nalll arpt 29°32'N, 95°27'W. Delete Peikert arpt 28°36'N, 96°39'W. Add obstn 564' MSL 28°48'21''N, 97°15'30''W. Delete ctl twr freq 257.8 Stinson Munl. Delete 75 Sunset Strip arpt 29°27'N, 95°03'W. Delete Katy arpt 29°49'N, 95°53'W. Delete Houston RBn 29°37'05''N, 95°15'W.

SAN DIEGO

59th Edition, March 3, 1966

Delete National City arpt 32°39'N, 117°06'W. Add obstn 400' MSL UC 33°44'17''N, 118°23'48''W. Delete ctl twr freq 142.74 at MCAS Yuma. Change Hawthorne ctl twr freq 257.8 to 385.5. Add obstn 760' MSL 33°-51'29''N, 116°29'39''W. Delete UNICOM Heron arpt 33°36'N, 114°35'W. Relocate Ontario VOR from 33° 56'11''N, 117°36'11''W to 33°55'06''N, 117°31'44''W adjust arwys and change freq 117.0 to 112.2.

SAN FRANCISCO

58th EDITION, January 6, 1966

Add Concord VOR freq 110.6 ident CCR. Class T-BVOR mag var 17°E 38°02'42''N, 122°02'38''W. Relocate Livermore Munl arpt from 37°41'30''N, 121°47'15''W to 37°42'N, 121°49'W. Change NAS Alameda ctl twr freq 360.2 to 340.2. Delete Boulder Creek arpt 37°09'N, 122°-10'W. Add Fort Ord RBn freq 236 ident Our class MH 36°38'25''N, 121°40'52''W.

•SAVANNAH

59th Edition, March 3, 1966

Change Shaw RBn ident and code SW ● ● ● ● — — to SSC ● ● ● ● ● ● — ● — ● 33°55'N, 80°31'W. Restore 700' floors to V154 and V185 between V70 and V157. Delete Dorchester Co arpt 33°11'N, 80°33'W. Add UNICOM Covington arpt 33°38'N, 83°51'W. Delete Church Branch arpt 33°31'N, 80°11'W.

•SEATTLE

58th Edition, December 9, 1965

In southern border delete Portland LFR leg box & type. Change Woodland FM code — — — — to ● — ● 45°58'N, 122°39'W. Change Kitsap RBn freq 208 to 206 47°29'48''N, 122°45'36''W. Revise Crest Air Park arpt pattern to show runway aligned NNW/SSE. Delete freq 278 Stampede Pass Weather comm stn. Delete Seattle LFR legs box & type. Delete Astoria (CGAS) heliport 46°12'N, 123°46'W. Add ctl zone 5 mi radius Pangborn Field 47°24'N, 120°12'W with SE extsn excluding the area 1 mi radius Fancher Field 47°27'N, 120°17'W. Add Seattle RBn freq 362 ident SEA class SABH 47°29'37''N, 122°15'06''W. Change Renton Mun ctl twr freq 257.8 to 348.6 47°29'36''N, 122°12'50''W. Change King Co ctl twr freq 348.6 to 257.8 47°31'43''N, 122°12'58''W. Delete UNICOM Bellevue arpt 47°35'N, 122°07'45''W.

•SHREVEPORT

50th EDITION, January 6, 1966

Add obstn 629' MSL 32°32'15''N, 92°09'55''W. Add Monticello VOR freq 111.6 ident MON class L–BVOR mag var 6°E 33°33'43''N, 91°42'56''W. Delete Circle N Ranch arpt 32°00'N, 95°17'W. Add obstn 633' MSL 33°-05'29''N, 89°52'28''W. Add obstn 600' MSL and type CAUTION 32°17'35''N, 90°55'11''W. Add obstn 697' MSL 32°31'07''N, 92°39'06''W. Add obstn 684' MSL 32°09'47''N, 94°09'36''W. Add obstn 553' MSL 32°-14'10''N, 90°50'40''W. Add obstn 581' MSL 35°36'42'' N, 93°22'17''W.

•SIOUX CITY

43rd Edition, May 26, 1966

No hazardous changes.

SPOKANE

52nd Edition, December 9, 1965

Add V536 airway from Great Falls to Kalispell (Kalispell lctn 48°12'50''N, 114°10'29''W). Extend V231 airway from Charlo to Kalispell. Add awy bcn 47°-23'13''N, 115°30'04''W. Add awy bcn code — ● ● ● 47°01'45''N, 114°28'06''W. Add ctl twr freq 122.7R Walla Walla City Co 46°05'41''N, 118°17'12''W. Delete Horse Heaven USFS arpt 47°49'N, 116°30'W. Delete Mead VOR 47°47'03''N, 117°18'36''W.

TRINIDAD

43rd Edition, March 3, 1966

Add obstn 4474' MSL 37°33'24''N, 102°26'19''W.

•TULSA

57th Edition, April 28, 1966

Add obstn 1400' MSL 37°58'30''N, 92°53'36''W. Delete rotating bcn Bismarck arpt 37°45'N, 90°37'W.

•TWIN CITIES

52nd Edition, April 28, 1966

Add obstn 1835' MSL 45°55'39''N, 90°27'42''W. Delete ctl twr freq 257 at Crystal.

•WASHINGTON

63rd Edition, March 31, 1966

Change Andrews AFB/NAF ctl twr freq 126.2 to 118.4. Change Lancaster arpt ctl twr freq 257.8 to 263.0. Delete Du Pont arpt 38°38'N, 75°38'W. Delete ctl twr freq 121.3 at MCAS Quantico. Twr comsnd NAS Lakehurst-East Field freq 142.74 and 340.2 40°-01'30''N, 74°19'15''W.

WICHITA

55th EDITION, January 6, 1966

Add UNICOM Cessna arpt 37°39'N, 97°15'W.

WILLISTON

39th Edition, July 22, 1965

Add obstn 2520' MSL 48°52'08''N, 104°03'40''W.

•WINSTON-SALEM

57th Edition, March 31, 1966

Delete Griffins arpt 36°11'N, 79°53'W. Change Evington RBn freq 393 to 385. Change obstn elev 2049' MSL to 2420' MSL 36°32'N, 82°35'W.

YELLOWSTONE PARK

43rd Edition, March 3, 1966

No hazardous changes.

(AF) ctl twr hours of opern from 0800–1630 to 0815–1615. Change Ellington AFB Military Climb Corridor R–6310 freqs 119.1 122.5R 379.1 to 120.2 and 290.2 Delete Cotulla RBn 28°27'10''N, 99°13'00''W. Delete Humble arpt 29°59'N, 95°17'W. Delete Dilley arpt 28°41'N, 99°11'W. Delete Naill arpt 29°32'N, 95°27'W. Delete Peikert arpt 28°36'N, 96°39'W. Add obstn 564' MSL 28°48'21''N, 97°15'30''W. Delete ctl twr freq 257.8 Stinson Muni. Delete 75 Sunset Strip arpt 29°27'N, 95°03'W. Delete Katy arpt 29°49'N, 95°53'W. Delete Houston RBn 29°37'05''N, 95°15'W.

SAN DIEGO

59th Edition, March 3, 1966

Delete National City arpt 32°39'N, 117°06'W. Add obstn 400' MSL UC 33°44'17''N, 118°23'48''W. Delete ctl twr freq 142.74 at MCAS Yuma. Change Hawthorne ctl twr freq 257.8 to 385.5. Add obstn 760' MSL 33°51'29''N, 116°29'39''W. Delete UNICOM Heron arpt 33°36'N, 114°35'W. Relocate Ontario VOR from 33°56'11''N, 117°36'11''W to 33°55'06''N, 117°31'44''W adjust arwys and change freq 117.0 to 112.2.

SAN FRANCISCO

58th EDITION, January 6, 1966

Add Concord VOR freq 110.6 ident CCR. Class T-BVOR mag var 17°E 38°02'42''N, 122°02'38''W. Relocate Livermore Muni arpt from 37°41'30''N, 121°47'15''W to 37°42'N, 121°49'W. Change NAS Alameda ctl twr freq 360.2 to 340.2. Delete Boulder Creek arpt 37°09'N, 122°10'W. Add Fort Ord RBn freq 236 ident Oar class MH 36°38'25''N, 121°40'52''W.

•SAVANNAH

59th Edition, March 3, 1966

Change Shaw RBn ident and code SW ● ● ● ● — — to SSC ● ● ● ● ● ● — ● — ● 33°55'N, 80°31'W. Restore 700' floors to V154 and V185 between V70 and V157. Delete Dorchester Co arpt 33°11'N, 80°33'W. Add UNICOM Covington arpt 33°38'N, 83°51'W. Delete Church Branch arpt 33°31'N, 80°11'W.

•SEATTLE

58th Edition, December 9, 1965

In southern border delete Portland LFR leg box & type. Change Woodland FM code — — — — to ● — ● 45°58'N, 122°39'W. Change Kitsap RBn freq 208 to 206 47°29'48''N, 122°45'36''W. Revise Crest Air Park arpt pattern to show runway aligned NNW/SSE. Delete freq 278 Stampede Pass Weather comm stn. Delete Seattle LFR legs box & type. Delete Astoria (CGAS) heliport 46°12'N, 123°46'W. Add ctl zone 5 mi radius Pangborn Field 47°24'N, 120°12'W with SE extsn excluding the area 1 mi radius Fancher Field 47°27'N, 120°17'W. Add Seattle RBn freq 362 ident SEA class SABH 47°29'37''N, 122°15'06''W. Change Renton Mun ctl twr freq 257.8 to 348.6 47°29'36''N, 122°12'50''W. Change King Co ctl twr freq 348.6 to 257.8 47°31'43''N, 122°12'58''W. Delete UNICOM Bellevue arpt 47°35'N, 122°07'45''W.

•SHREVEPORT

50th EDITION, January 6, 1966

Add obstn 629' MSL 32°32'15''N, 92°09'55''W. Add Monticello VOR freq 111.6 ident MON class L–BVOR mag var 6°E 33°33'43''N, 91°42'56''W. Delete Circle N Ranch arpt 32°00'N, 95°17'W. Add obstn 638' MSL 33°05'29''N, 89°52'28''W. Add obstn 600' MSL and type CAUTION 32°17'35''N, 90°55'11''W. Add obstn 697' MSL 32°31'07''N, 92°39'06''W. Add obstn 684' MSL 32°09'47''N, 94°09'36''W. Add obstn 553' MSL 32°14'10''N, 90°50'40''W. Add obstn 581' MSL 35°36'42''N, 93°22'17''W.

•SIOUX CITY

43rd Edition, May 26, 1966

No hazardous changes.

SPOKANE

52nd Edition, December 9, 1965

Add V536 airway from Great Falls to Kalispell (Kalispell lctn 48°12'50''N, 114°10'29''W). Extend V231 airway from Charlo to Kalispell. Add awy bcn 47°23'13''N, 115°30'04''W. Add awy bcn code — ● ● ● 47°01'45''N, 114°28'06''W. Add ctl twr freq 122.7R Walla Walla City Co 46°05'41''N, 118°17'12''W. Delete Horse Heaven USFS arpt 47°49'N, 116°30'W. Delete Mead VOR 47°47'03''N, 117°18'36''W.

TRINIDAD

43rd Edition, March 3, 1966

Add obstn 4474' MSL 37°33'24''N, 102°26'19''W.

•TULSA

57th Edition, April 28, 1966

Add obstn 1400' MSL 37°58'30''N, 92°53'36''W. Delete rotating bcn Bismarck arpt 37°45'N, 90°37'W.

•TWIN CITIES

52nd Edition, April 28, 1966

Add obstn 1835' MSL 45°55'39''N, 90°27'42''W. Delete ctl twr freq 257 at Crystal.

•WASHINGTON

63rd Edition, March 31, 1966

Change Andrews AFB/NAF ctl twr freq 126.2 to 118.4. Change Lancaster arpt ctl twr freq 257.8 to 263.0. Delete Du Pont arpt 38°38'N, 75°38'W. Delete ctl twr freq 121.3 at MCAS Quantico. Twr comsnd NAS Lakehurst-East Field freq 142.74 and 340.2 40°01'30''N, 74°19'15''W.

WICHITA

55th EDITION, January 6, 1966

Add UNICOM Cessna arpt 37°39'N, 97°15'W.

WILLISTON

39th Edition, July 22, 1965

Add obstn 2520' MSL 48°52'08''N, 104°03'40''W.

•WINSTON-SALEM

57th Edition, March 31, 1966

Delete Griffins arpt 36°11'N, 79°53'W. Change Evington RBn freq 393 to 385. Change obstn elev 2049' MSL to 2420' MSL 36°32'N, 82°35'W.

YELLOWSTONE PARK

43rd Edition, March 3, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000′ MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000′ MSL 190–290°: below 7000′ MSL 320–345° and 005–035°; below 8000′ MSL 035–060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500′ MSL; 175–240°, 090–145° below 10,500′ MSL 040–090°. Below 14,000′ MSL 360–040°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000′ MSL beyond 40 nmi from 195–230°

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000′ MSL 152–170° and 200–210° and beyond 6 nmi below 7000′ MSL 078–125°.

PRESCOTT RDO: VORTAC unusable beyond 40 nmi below 11,000′ MSL 145–155° and 175–200°; below 17,000′ MSL 200–225°; below 12,000′ MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON,VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 145–190°; below 14,000′ 190–255°; below 10,500′ MSL 350–145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL from 320–045°; below 16,500′ MSL 045–065°; below 15,000′ MSL 065–080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL 280–300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346–311° beyond 20 nmi below 3,500′ MSL; 312–345° beyond 15 nmi below 5,500′ MSL and beyond 30 nmi below 7,500′ MSL. MSL.

CALIFORNIA

AVENAL VORTAC: TACAN unusable beyond 40 nmi below 3000′ MSL 320–065° below 4000′ MSL, 065–095° below 4500′ MSL, 095–125° below 8500′ MSL, 125–170° below 7500′ MSL, 170–198° below 7000′ MSL, 195–230° below 8000′ MSL, 230–305° below 8000′ MSL.

BAKERSFIELD VORTAC: VOR portion 121° rad V23E to Arvin Int unusable below 4000′.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000′ MSL 324–018° below 9000′ MSL 189-217°, below 10,000′ MSL 175–189°, below 15,000′ MSL 277–324°.

BIG SUR VORTAC: TACAN portion of VORTAC unusable beyond 40 nmi below 8000′ MSL 085–120° below 7000′ MSL 120–130° below 6000′ MSL 290–320° and below 9000′ MSL 320–085°.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000′ and below 280–290° and 14,000′ and below 290–350°

FORTUNA VORTAC: TACAN portion of VORTAC unusable below 9500′ MSL 050–070° and below 5000′ MSL 150–200° beyond 40 NM.

FRESNO VORTAC: TACAN portion of VORTAC unusable below 4000′ MSL 200–250°.

GLENDALE RBN: H facil unusable beyond 2 mi from 320–065° and from 130-235°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 265–290° and 15,000′ MSL 290–310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 265–310° below 10,500′ MSL 350–040°; below 5500′ MSL 125–155°; below 10,500′ MSL 155–170° below 14,500′ MSL 170–219°; below 31,000′ MSL 219–250°; below 25,000′ MSL 250–265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL from 135–180°, below 7000′ MSL from 268-290°. V–201 011° rad beyond 20 nmi below 9000′ MSL. DME portion unusable beyond 40 nmi below 3500′ MSL from 180-210°.

NAPA VORTAC: TACAN unusable beyond 40 nmi below 7500′ from 280–045°.

NEEDLES VORTAC: VORTAC unusable below 11,500′ MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: TACAN unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005–060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. TACAN unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. TACAN unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–080° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unustble beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 28,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265–280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115–125°, beyond 15 mi from 125–135°, beyond 15 mi from 225–235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

MARATHON RBN: H facility unusable at ngt below 3500′ beyond 15 nmi from stn.

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

GEORGIA

AUGUSTA VORTAC: VOR unusable 357–002°. Use Greenwood VOR 180° radial for V–185 between Augusta VORTAC and Greenwood VOR, MEA 2,300′ MSL.

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000' MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000' MSL from 130-140° and below 12,000' MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000' MSL from 310–010° and from 200–230° and below 12,000' MSL from 290-310°. VOR portion unusable within an arc from 130–140° 6 to 8 NM from station due to roughness.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000' MSL from 060–085° and below 13,000' MSL from 085-120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000' MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 135–156°, 285–315° and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000' MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000' MSL.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000' MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000' MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115–210° below 2500' MSL.

IOWA

WATERLOO VORTAC: TACAN unusable beyond 15 NM 355–005° and within 5 NM of Union Intersection above 9000' MSL.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500' MSL.

LOUISIANA

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000' MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000' beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500' MSL; 210-225° beyond 20 mi below 1,300' MSL; and 315–005° beyond 12 mi below 1,500' MSL.

PATUXENT RIVER VOR: VOR unusable below 1500' MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 288° rad mi below 17,000' MSL.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable in the following areas: 010–045° beyond 65 mi 45,000' MSL, 000–026° beyond 10 mi below 18,000' MSL, 026–045° beyond 22 mi below 3500' MSL, 026–045° beyond 26 mi below 4500' MSL, 026–045° beyond 28 mi below 5500' MSL, 026–045° beyond 32 mi below 7500' MSL, 045–360° beyond 26 mi below 3000' MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000' MSL

MICHIGAN

ALPENA RDO: DME unusable 180–270° beyond 25 nmi below 3000' MSL. VOR unusable 360–065°.

ESCANABA VOR: VOR unusable from 140–170°, 190–235°, 315–335° beyond 10 NM airway V7 Escanaba 216° rad change over point 10 NM SW Escanaba VOR.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000' MSL.

MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900' MSL and 335–350° beyond 30 mi below 2,900' MSL.

SAWYER VOR: VOR unusable 090–110° and 270–310°.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000' and 18,000' MSL; beyond 30 mi above 18,000'. TACAN unusable 265–275° with 40 nmi.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000' MSL within 30 mi; 242–255° below 8000' MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185–265° beyond 20 mi below 3,000' MSL; 265–185° beyond 20 mi below 2800' MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000' beyond 20 mi 285–040° and 105–140°; unusable below 4000' 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3,500' MSL. DME unusable 150–215° beyond 30 mi below 3,500' MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252-260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400' MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000' MSL.

BUTTE VOR: VOR unusable following areas: 005–120° beyond 15 mi below 10,000' MSL; and 120–325° beyond 15 mi below 11,000' MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250–030° beyond 25 mi below 10,500' MSL, 030–250° beyond 25 mi below 12,000' MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235-245° beyond 10 mi below 6,800' MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360–065° beyond 20 mi below 10,000′ MSL; 065–090° beyond 25 mi below 11,000′ MSL; 110–120° beyond 20 mi below 16,000′ MSL; 120–240° beyond 20 mi below 10,000′ MSL; 240–320° beyond 25 mi below 10,000′ MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000′ MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345–060° beyond 15 mi; 060–095° beyond 31 mi below 12,000′ MSL; 095–165° beyond 20 mi below 10.000′ MSL; 165–270° beyond 20 mi below 12,000′ MSL; 285–315° beyond 20 mi below 12,000′ MSL; 315–345° beyond 20 mi; VOR below 11,000′ MSL TACAN below 14,000′ MSL. Possible momentary VOR flag activity on V-2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360–040° beyond 30 mi below 14,500′ MSL; 040–055° beyond 30 mi below 12,000′ MSL; 120–160° beyond 30 mi below 14,500′ MSL; 215–230° beyond 20 mi below 14,500′ MSL; 230–285° beyond 35 mi below 14,500′ MSL; 285–360° beyond 30 mi below 13,500′ MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36–55 mi below 3,600′ MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285°.

BEATTY VORTAC: VOR restricted below 8000′ beyond 27 nmi, 060–360°; below 10,000′ beyond 10 nmi, 360–060°.

COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced comerage. DME unusable beyond 15 nmi below 14,000′ MSL 065–075°; below 17,000′ MSL 150–235°; below 16,000′ MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 nmi 260–290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240–320°; below 14,000′ MSL 170–220° and 320–340°; below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010–120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,500′ MSL from 200° to 255°, below 14,500′ MSL from 255° to 270°, below 16,000′ MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000′ MSL from 055 to 100°; 14,000′ MSL from 100 to 110°; 17,000′ MSL from 110 to 135°; 16,000′ MSL from 285 to 340°.

RENO RBN: H facility unusable 170–270° beyond 20 nmi, 270°–300° beyond 30 nmi and 300–010° beyond 23 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000′. TACAN unusable below 14,500′ beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500′ MSL beyond 40 nmi from 020–075° and 220–235°.

SPARKS RBN: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH VORTAC: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000′ MSL 005–030°; below 22,500, 185–210°; below 15,000, 335–350°; and below 12,000′, 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000′.

LEBANON VOR : VOR unusable 110–115° beyond 35 mi below 6,900′ MSL.

NEW JERSEY

ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1,500′ MSL. TACAN unusable for apchs.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000′ MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000′ MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000′ MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500′ MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000′ MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000′ MSL; 001–025° beyond 20 nmi below 13,300′ MSL; 150–175° beyond 30 nmi below 10,500′ MSL; 176–210° beyond 20 nmi below 10,500′ MSL; 240–265° beyond 35 nmi below 10,700′ MSL; unusable 001–010°.

SANTA FE VORTAC: VOR unusable 015–030° beyond 30 mi at MEA.

NEW YORK

ALBANY VORTAC: VOR unusable 115–135° beyond 10 mi.

BINGHAMPTON RBN: Erratic ADF action 4–13 mi SSE of facility at 3,500′ MSL.

CANARSIE VOR: VOR unusable 060–095° beyond 15 mi below 4,000′ MSL.

DEER PARK VORTAC: VOR unusable following areas: 070–180° beyond 35 mi below 1,700′ MSL; 180–240° beyond 30 mi below 1,700′ MSL; 240–350° beyond 25 mi below 2,200′ MSL; and 350–040° beyond 30 mi below 2,200′ MSL.

DUNKIRK VOR: VOR unusable 120–180° beyond 22 mi below 4,000′ MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500′ MSL in following areas: 115–140° beyond 35 mi; 140–160° beyond 30 mi; 160–180° beyond 35 mi; 190–210° beyond 30 mi; and 210–215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305–315° beyond 35 mi below 7,000′; 315–350° beyond 30 mi below 8,000′.

HAMPTON VORTAC: DME unusable following areas: 280-325° beyond 35 mi below 1,700′ MSL; and 325–355° beyond 30 mi below 2,000′ MSL.

HUGUENOT VORTAC: VOR unusable 210–230° beyond 20 mi below 6,500′ MSL.

ITHACA VOR: VOR unusable 360-150° beyond 25 mi below 3,800′ MSL.

KENNEDY VORTAC: VOR unusable below 1,500′ MSL in the following areas: 015–030° beyond 30 mi; 030–045° beyond 26 mi; 060–075° beyond 24 mi; 075–100° beyond 30 mi; 100–150° beyond 28 mi; 150–165° beyond 30 mi; 165–215° beyond 30 mi; 215–270° beyond 26 mi; and 350–015° beyond 35 mi. VOR unusable below 2,000′ MSL in following areas: 045–060° beyond 24 mi; 270–340° beyond 26 mi; and 340–350° beyond 30 mi.

KINGSTON VOR: VOR unusable 045–050° beyond 35 mi below 4,300′ MSL and 070–140° beyond 30 mi below 3,400′ MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015–025° beyond 20 mi below 1,900′ MSL; 025–045° beyond 35 mi below 2,700′ MSL; 065–075° beyond 30 mi below 1,700′ MSL; 075–135° beyond 25 mi below 1,700′ MSL; 135–145° beyond 35 mi below 1,700′ MSL; 165–205° beyond 15 mi below 1,700′ MSL; 205–215° beyond 35 mi below 1,700′ MSL; 215–220° beyond 30 mi below 1,700′ MSL; 220–230° beyond 25 mi below 1,700′ MSL; 230–240° beyond 30 mi below 1,700′ MSL; 240–250° beyond 20 mi below 1,700′ MSL; 250–260° beyond 10 mi below 2,500′ MSL; 260–270° beyond 20 mi below 1,700′ MSL; 270–285° beyond 25 mi below 1,800′ MSL; 285–295° beyond 30 mi below 2,700′ MSL; 295–305° beyond 35 mi below 2,700′ MSL; 315–325° beyond 35 mi below 3,200′ MSL; 325-005° beyond 25 mi below 2,700′ MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260–270° beyond 35 mi below 6,000′ MSL.

ROCHESTER VOR: VOR unusable 045–065° beyond 12 mi.

● SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360–015° below 5000′ MSL; 015-025° below 4500′ MSL; 025–100° below 5000′ MSL; 100-165° below 9000′ MSL; 165-180° below 7000′ MSL; 180–190° below 6500′ MSL; 190–200° below 7000′ MSL; 200–220° below 6000′ MSL; 220-240° below 5000′ MSL; 240–295° below 5500′ MSL; 295–305° below 7000′ MSL; 305–360° below 4500′ MSL.

NORTH CAROLINA

CHARLOTTE VORTAC: VOR unusable 360–055° except 005° rad unusable beyond 20 nmi.

ELIZABETH CITY VOR: VOR unusable 026–042° and 082–100° all altitudes; 276–312° below 5,000′ MSL. Use Franklin VOR 130° radial for V-290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500′.

GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290–320° and 100–190°.

GREENSBORO VORTAC: VOR unusable 350–010° beyond 30 mi.

NORTH DAKOTA

DICKINSON VORTAC: VOR unusable 090-120° between FL 180 and FL 310 beyond 40 mi. GTF Center RADAR service available.

RED RIVER VOR: VOR unusable 228-256° and 265–280°.

OHIO

AKRON VORTAC: VOR unusable 030–080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500′ MSL.

BELLAIRE VOR: VOR unusable 325–345° below 6000′ MSL.

●BRIGGS VORTAC: VOR unusable 330–010°, 120–145° and 305–325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033–070°, 085–135°, 155–225°, 250–280° and 295–023°.

STRONGSVILLE VOR: VOR unusable 080–200° beyond 35 mi.

OREGON

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000′ MSL 020–085°; 18,000′ MSL 085-120°; 12,000′ MSL 190–340°; 14,000′ MSL 340–020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 600′ MSL 150–170°; 6000′ MSL 320–350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000′.

REDMOND VORTAC: VORTAC unusable below 11,000′ MSL 190–210′; below 13,000′ MSL 210-240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020–060° beyond 26 mi below 3,500′ MSL.

ALTOONA VOR: VOR unusable in the following areas: 070–100° beyond 18 mi below 3,500′ MSL; 100–160° beyond 30 mi below 3,500′ MSL; 200–310° beyond 30 mi below 4,500′ MSL; 310–350° beyond 15 mi all altitudes; 350–010° beyond 30 mi below 4,000′ MSL.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VOR: VOR unusable 070–085° beyond 10 mi at MOCA.

CLARION VOR: VOR unusable 215–223°.

HARRISBURG VORTAC: VOR unusable in following areas: 105–140° beyond 26 mi; 140–165° beyond 30 mi; and 195–230° beyond 28 mi. DME unusable 325–360° beyond 30 mi; and 360–025° beyond 35 mi.

IMPERIAL VORTAC: VOR unusable 150–170° below 8,000′ MSL and 345–360° below 14,500′ MSL.

LANCASTER VOR: VOR unusable in following areas: 190–220° beyond 25 mi below 3,000′ MSL; 220–250° beyond 25 mi below 4,000′ MSL; 320–340° beyond 15 mi below 5,000′ MSL; 320–340° beyond 25 mi below 6,000′ MSL.

LATROBE VOR: VOR unusable beyond 20 mi.

SELINSGROVE VORTAC: VOR unusable in following areas: 105–115° beyond 26 mi below 3,000′ MSL; 210–230° beyond 35 mi below 2,500′ MSL; and 250–285° beyond 26 mi below 3,400′ MSL. DME unusable 100–115° beyond 30 mi below 3,000′ MSL; 115–170° beyond 35 mi below 2,900′ MSL; 190–300° beyond 35 mi below 3,500′ MSL.

YARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250–265° beyond 17 mi; 265–280° beyond 10 mi; and 280–290° beyond 17 mi. DME unusable 225–275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

PROVIDENCE VORTAC: VOR and DME unusable 220–310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

ALLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

FLORENCE VORTAC: VOR unusable 360–010° beyond 20 mi below 5000′ MSL.

MYRTLE BEACH VOR: VOR unusable 220–245° beyond 15 nmi below 2500′ MSL; 350–015° beyond 10 nmi below 5000′ MSL.

TEXAS

AMARILLO VORTAC: TACAN unusable 110–235° beyond 15 NM below 7000′ MSL.

AUSTIN VORTAC: VOR unusable 260–320° beyond 35 mi below 3,500′ MSL.

EL PASO VORTAC: TACAN unusable 265–300° beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085–210° beyond 35 mi below 2,500′ MSL.

SALT FLAT VORTAC: VORTAC unusable 031–049° beyond 30 NM below 15,000′ MSL. (3–17)

UTAH

CEDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi090–125° and beyond 35 nmi 125–150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040–080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330–005° and below 13,500′ MSL beyond 40 nmi from 170–200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180–220°; below 12,000′ MSL 280–310°: below 11,000′ MSL 310–330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025–115°, 30 nmi, 235–330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360–055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010–035°; below 16,000′ MSL 035–050°; below 15,000′ MSL 275–285°; below 14,000′ MSL 285–295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010–020°; below 20,000′ MSL 020–030°; below 23,000′ MSL 030–060°; below 24,000′ MSL 060–080°; below 19,000′ MSL 080–095°; below 17,000′ MSL 095–125°; below 16,000′ MSL 125–140°; below 16,000′ MSL 195–210°; below 10,000′ MSL 280–290°; below 16,000′ MSL 350–010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220–260°.

VERMONT

BURLINGTON VOR: VOR unusable 080–155° beyond 30 mi below 9,000′.

MONTPELLER VOR: VOR unusable 205–280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230–270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360–010° beyond 5 nmi, 010–020° beyond 10 nmi, 020–030° beyond 20 nmi, 030–040° beyond 10 nmi, 040–060° beyond 20 nmi, 190–210° beyond 5 nmi, 230–240° beyond 20 nmi, 240–300° beyond 5 nmi, 310–330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050–075° beyond 30 mi; 075–095° beyond 20 mi; 105–120° beyond 35 mi; and 165–215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355–010° beyond 18 nmi below MEA 030–070° beyond 20 nmi below MEA 170–190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215–250° beyond 8 mi below 1,800′ MSL and 215–270° between 14,500–18,000′ MSL.

LINDEN VORTAC: DME unusable 140–180° beyond 25 mi below 3,500′ MSL and 180–225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110–220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 286–360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

•BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130–140°, 4500′ MSL and 150–290°, 4000′ MSL.

NEAH BAY RBN: H facil unusable 100–130° below 6500′ MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280°. VOR 348° rad unusable below 4500′ VOR intermittent roughness may be observed on V287, 148° rad below 7000′ from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270°. Coverage within R–6715 from 270–320° not flt checked.

PORT ANGELES VOR: VOR coverage 40 nmi; 220-110° at 7000'; 110-140° at 14,500'; 140-150° at 20,500'; 150-170 °at 29,000'; 170-190° at 20,500; 190-220° at 16,000'.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000' MSL from 158-165° beyond 20 nmi below 12,000' MSL from 305-355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000' MSL and beyond 50 nmi below 18,000' MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000', 355-020° and 148-176°; below 7500' from 130-150°; below 10,500' from 020-060° and 110-130°; below 12,700' from 065-110°.

WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000' MSL 000-020° beyond 30 nmi below 20,000' MSL 020-075° beyond 40 nmi below 14,000' MSL 075-090° below 18,000' MSL 090-190° below 19,000' MSL 190-240°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325-350° beyond 20 mi below 5,000' MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100-150° and 230-060° beyond 20 mi below 3,300' MSL.

MADISON, TRAUX RDO: Truax VOR unusable within 10 mi above 7000' MSL.

TIMMERMAN VOR: VOR unusable 300-310° beyond 35 mi below 3,400' MSL.

● WAUSAU VORTAC: TACAN unusable 300-310° beyond 30 nmi below 3000' MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion onV-85 20-25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000' MSL 160-175°; below 15,000' MSL 175-200° and below 16,500' MSL 200-230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexander, La. (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

●**Alliance, Nebr.:** 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16–34; 1000′ MSL.

Bemidji, Minn: 131°; over apch end rnwy 13; 1800′.

Big Spring, Tex.: 199°; over the rdo bcn; 1000′ AGL.

Billings, Mont: 073°; over int of rnwys 22–27; 4600′.

Blackstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 1500′.

Bloomington, Ill. (Mun): 060°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

●**Blytheville, Ark.:** 094°; over hangar adj to Admin Bldg.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brainerd, Minn.: 294° over centerline apch end rnwy 30; 1800′.

●**Brownwood, Tex.:** 169°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

Burlington, Iowa: 296°; over rdo twr 8 nmi NNW Burlington Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500′.

Cape Girardeau, Mo.: 032°; over smoke stack 3.2 NM NNE; 1700′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21–25–30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 18.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.; 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

Crestview, Fla. 106°; over rot bcn twr; 300′.

Crossville, Tenn (Meml Arpt): 333°; 11 nml over metal hangar.

Cut Bank, Mont: 311°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 104°; int of rnwys 21 and 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nml; 2500′.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Decatur, Ala. (Pryor): 092°; over intersection of rnwy and taxiway 236° from HSV; 1000′.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Des Moines, Iowa: 293°; over grain elev Cummings, Iowa; 2000′; 5.5 NM from VOR.

●**Devils Lake, N. Dak.:** 178°; 7.2 nml over 2087′ MSL rdo twr; 2600′.

Dublin, Ga. (Municipal): 067°; over SW end NE/SW rnwy.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nml SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin): 228°; trml bldg E side of arpt.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

El Paso, Tex.: 232°; over water twr, 2 mi SE of arpt; 5000′.

Emporia, Kans.: 046°; over schoolhouse Neosho Rapids, Kans., 8.5 nml 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evergreen, Ala.: 100.7° ; arpt bcn lgt twr lctd on Evergreen (Middleton) Arpt., 15.3 nml from VOR.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nml from VOR; 2300′.

Fayetteville, Ark.: 183°; VORTAC; white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; over water twr at Parktown, N.C. 8.0 nml; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000′; aprxly 5 nml from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nml over smokestack at Glen Lake Sanatorium; 2000′.

Flint, Mich (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E–W hvy dist 4.9 nml from transmitter.

Fort Smith, Ark.: 232°; water tank at N edge of arpt; 1300′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800′.

Fulton, Ga.: 288° over water tank 2.4 NM NW side of arpt; 2000′ MSL.

Gage, Okla.: 094°; over LFR; 3000′.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nml; 4000′.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nml from GVE–VOR; 2000′.

Grand Island, Nebr.: 142°; over smoke stack 5.5 nml from VOR; 3100′.

Grand Junction, Colo. Walker Fld): 059°; int rnwys 29 and 22; 6500′.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000′.

●**Greeley, Colo. (Weld Co. Arpt):** GLL 204°; over int rnwy 12 and E/W twxy; 6100′.

Hallsville, Mo.: 225°; 14 nml Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hastings, Nebr.: 266°; 11 nml over RR crossing in center of town of Kenesaw; 3200′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt 10 nml, 800′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C.: 225°; over end rnwy 24.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 23 nml from the VOR.

Hobart, Okla.: 352°; centerline of N/S rnwy 100′ above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County): 030°; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nml from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nml from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Huron, S.D.: 153°; over ant. of Huron H facility; 2500′.

Hutchinson, Kans.: 033°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nml; 2200′.

Iowa City, Iowa: 019°; over arpt bcn; 2000′.

Jack's Creek, Tenn. (McKellar): 267°; over bcn twr above arpt 27.5 NM; 1500′.

●**Jackson, Miss. (Hawkins):** 189°; over int rnwys 11–29 and 34–16. 10.8 nmi

Janesville, Wis. (Rock Co. Arpt): 034°; over center of apch end of rnwy 04; 1600′.

Jefferson City, Mo.: 123°; 9.1 NM over hwy bridge on Osage rvr; 2500′ MSL.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500′.

Kalispell, Mont (Flathead Co. Arpt): 314°; apch end rnwy 9; 4000′.

Kearney, Nebr: 215°; over rdo twr KGFW, 4.8 NM SW of arpt; 3000′.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld; Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt. 17.0 nmi from HBG VOR, 800′.

● **Lawrenceville, Va.:** 123°; over arpt bcn; 1500′.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 051°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000′.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Manitowoc: 162°; over Manitowoc Portland Cement Co. Stack 1.9 mi; 1900′.

Marion, Ill: 274°; int rnwys 6–24 and 18–36 at Southern Arpt; 12 NM W; 1000′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

● **Maxwell, Calif. (Willows-Glen Co. Arpt):** 342°; over apch end rnwy 34; 600′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

McCook, Nebr.: 311°; 8.5 nmi over int of E/W and NW/SE rnwys; 3500′.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Midland, Tex. (Air Trml): 170°; over apch ends of rnwys 22 and 28; 1000′.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

● **Montebello, Va.** (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys: 3500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

Monticello, Ark.: 329°; 4.7 NM bcn twr.

Muskegon, Mich. (County): 256°; over Muskegon LFR; 1500′.

Myrtle Beach, S.C. 061°; over apch end rnwy 5 Crescent Beach Arpt.; 500′.

●**Napa, Calif.:** 046°; over arpt bcn; 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi NE of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iowa; 2500′.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

New Bern, N.C.: 259°; Int of E/W rnwys Oak Grove (navy) arpt.

New Orleans, La. (Lakefront Arpt): 081°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton, Nebr.; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

Nortth Platte, Nebr. (Lee Bird): 083°; over water twr Brady, Nebr.; 4000′.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR int rnwys 17–35 and 12–30; 1800′.

Omaha, Nebr. (Eppley Fld); 310°; centerline of SE end of NW/SE rnwy.

O'Neil, Nebr.: 117°; at intersection of E/W road and the railroad ½ nmi SE of Inman, Nebr.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 3.5 nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Park Rapids, Minn.: 208°; over northern most of two twrs 5.2 nmi; 2100′.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Co. Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 3300′.

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar at Southern Pines, Pinehurst-Southern Pines Arpt.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4–22 and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500′.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450′.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800′.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3-21 and 12-30 intersection; 5500′.

Presque Isle, Me. (AFB): 184°; Spragueville LFR site: 2000′.

Princeton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo, Colo. (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).

Quitman, Tex.: 241°; water tank, town of Alba, Tex.

Rawlings, Wyo. (Munl): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300′.

Raymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500′.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000′.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

Rochester, Minn.: 024°; int rnwys 13-31 and 2-20 8.5 NM; 3000′.

Roswell, N. Mex.: 027°; over apch end rnwy 3; 4000′.

Royston, Ga.: 067°; over intersection rnwys 5-23 and 17-35 at Anderson, S.C. Mun Arpt; 1250′.

Russell, Kans.: 091°; over water twr in center of town of Wilson, Kans.

Sacramento, Calif.: 015°; apch end rnwy 02; 100′.

Saginaw, Mich. (Tri-City): 058°; 6.7 mi NE of MBS VOR over hwy int US #10 and I 75; 1700′.

St. Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

Samsville, Ill.:064°; over int at rnwys 4-22 and 13-31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

Sault Ste. Marie, Mich. (Mun): 336°; int E-W and NW/SE rnwys; 2100′.

Sayre, Okla. (Mun): 175°; over rot bcn twr; 3000′.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 4.9 nmi; 4500′ MSL.

Shreveport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.

Shreveport, La. (Greater Shreveport): 175°; over the Admin Bldg.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

Stockton, Calif. (Mun): 299°; over water twr adjt to S side of arpt; 1000′.

Sulphur Springs, Tex.: 229°; over awy bcn lgt on SE corner of arpt.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over center of segmented circle on Anniston, Ala. Arpt.; 2000′ MSL.

Talladega, Ala.: 029°; over Anniston, Ala. Arpt.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 122°; over int rnwys 13-31 and 4-22; 1000′.

Thibodaux, La.: 117°; over intersection of rnwys 17-35 and 11-29 on Houma Mun Arpt.

Thief River Falls Minn.: 124°; over RR & hiway crossing adj Hazel, Minn.; 2000′.

Thurman, Colo: 351°; in flt over Akron VOR transmitter site; 5600′.

Toccoa, Ga.: 179°; over arpt bcn; 1500′.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S-E/W rnwys; 1600′.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

Vienna, Ga. (VORTAC): 226°; over center of NE/SW rnwy, Cordele, Ga., Arpt.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.

Wichita, Kans.: 161°; centerline of NW end of NW/SE rnwy.

Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml): 011°; at bridge over Red River 8 nmi N of Sheppard AFB; 1500′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11: 2600′.

Willmar, Minn.: 289°; over twr at Pennock, Minn.; 2200′

Wilmington, N.C. (New Hanover Co.): 204°; over wea radar ant on arpt 5.5 nmi; 1000′.

Wink, Tex. (Winkler Co.) : 149°; over int rnwy 22 and 13 5.9 nmi VOR; 3818′.

Winner, S.D. (Mun): 201°; over center of race track 7.8 nmi; 3000′.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4-11; 5100′.

Winston-Salem, N.C.: 295° (GSO VOR): over ctl twr.

Worland, Wyo. (Municipal): 010° Boysen Reservoir VORTAC; over taxi strip between Trml Bldg and rnwy 16-34; 5200′.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600′.

Yankton, S.D.: 257°; 7 nml over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17–35; 400′.

GROUND

Aberdeen, S. Dak. (Saunders); 304°; midway and center of N/S taxi strip leading from S edge ramp on E side arpt.

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nml in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24..

Amarillo, Tex. (AFB/MUN): 207°; lctd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt): 002°; S-end on curve of taxiway 50′ W apch end rnwy 35 centerline.

Anderson, S.C. (Mun): 038°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun): 042°: adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l): Lctn #1–293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips): Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County): 051°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County): 140°; ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

Bismarck, N. Dak: 275°; N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 023°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City): 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and twr bldg on ramp.

Cedar Rapids, Iowa; 080°; rnwy runup pad apch end rnwy 13.

•Chanute, Kans.: 051°; apch end rnwy 12.

Chattanooga, Tenn. (Lovell): 332°; centerline S taxiway at point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 200°; on yellow line on taxi strip immediately SE or apch end rnwy 8.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nml on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; intersection of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp on Easterwood Arpt.

Columbia, S.C. (Owens Fld): 022°; compass rose on parking ramp.

Columbia, S.C. (Mun): 332°; 6 NM E/W taxiway (parallels rnwy 10–28).

Columbus, Ga. (Muscogee Co.): 145°; pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM–TPA): 300°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison): 159°; intersection of center and parallel taxiways.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/SE rnwy.

Dothan Arpt, Ala: 334°; on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl): 160°; int of SW ramp and txwy T–2.

Dubuque, Iowa: 332°; on ramp at Term. Bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 3 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld): 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): Lctn #1—028°; lctd on taxiway leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Erie, Pa. (Erie-Port Erie): 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Amin Bldg.

Florence, S.C.: 235°; on taxiway W of the end of rnwy 18.

Fort Benning, Ga. (Lawson AAF): Lctn #1—021°; run up area on txwy at apch end of rnwy 20. Lctn #2—130°; run up area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt): 120°; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page): 172°; N side of Trml ramp.

Fort Riley, Kans. (Marshall AAF): 030°; on SE corner of tie down area and taxiway apchg rnwy 4.

Fort Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex.: 116°; on ramp N of terminal.

Frederick, Md. (Mun): 359°; txwy between rnwys near apch end rnwy 23.

Goldsboro, N.C. (Seymour Johnson AFB): 280°; run up pad at apch end rnwy 8.

Great Falls, Mont. (Intl): #1-027°; Int NE/SW and E/W txwys adjt to apch end rnwy 34; 2.4 mi. #2-027°; on NE/SW txwys 100′ SW rnwy 25; 3.0 mi.

Greeley, Colo. (Weld Co. Arpt): Gill VOR 204°; Int rnwys 12 and E/W txwy.

Green Bay, Wis. (Austin-Straubel): 141°; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C.: 033°; Ramp in front of twr.

Greenwood, Miss.: 060°; central taxiway adj to ramp.

Greenwood, S.C. (County): 251° on taxiway apch end of rnwy 9.

Gulfport, Miss.: 098°; 100′ NW of ctl twr.

Harrison, Ark.: 131°; Int taxiway and ramp.

Helena, Mont.: 235°; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County): 030°; on runup pad apch end rnwy 3.

Holston Mountain, Tenn.: 282°; on ramp S of Term Bldg.

Hot Springs, Ark.: 246°; run-up area short of apch end rnwy 5.

Houston, Tex.: 292°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld): 007°; junction of N/S txwy and rnwy 16-34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375′ from centerline of NW/SE rnwy.

●**Jamestown, N. Dak.:** 359°; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

Key West, Fla. (Boca Chica): 091°; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l): 127°; NW portion of ramp.

Kinston, N.C. (Stallings): 230°; 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga.: 106°; on compass rose at taxi strip intersection aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City): 053°; center of apch end rnwy 6

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351° last txwy W side apchg rnwy 19.

●**Las Vegas, N. Mex.:** 231°; on apron N of FSS bldg.

Lawton, Okla.: 349°; on trml apron at the point intersecting the S taxi strip.

Little Rock, Ark. (Adams): 314°; on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

Longview, Tex. (Gregg Co): 126°; N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 103°; center of warm up pad for rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen): 026°; mid txwy to rnwy 17-35.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Alpine): 314°; 5 NM from VOR intsxn NW/SE—NE/SW txwy, 450′ E apch end rnwy 30.

Marianna, Fla.: 310°; ESE end taxiway 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

McAlester, Okla. (Mun): 350°; taxistrip at terminal ramp.

McAllen, Tex. (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S txwy. Lctn #2— 012°; in front airline trml on gate two loading spot.

Melbourne, Fla. (Eau Gallie). 145°; 500′ E of Term Bldg.

Meridian, Miss. (Ky): 121°; from run up ramp for rnwy 23.

Midland, Tex. (Air Trml): 178°; int txwy C and ramp in front of Trml Bldg.

Miles City, Mont: 036°; on txwy leading to rnwy 30.

Mineral Wells, Tex.: 307°; intersection of txwy and NW rnwy.

Missoula, Mont. (County): 340°; 5′ from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates): 107°; Int of N/S and E/W txwys E of rnwy 18-36. 109.5°; Int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

Monticello, Ark.: 329°; on ramp by gas pumps.

•**Morgantown, W. Va.:** 157°; on txwy in front of Term Bldg.

Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX–AMA): 253°; on ramp in front of Admin Bldg.

New Bern, N.C.: 088°; on compass rose at ramp.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

New Orleans Intl, La. (Moisant Fld): 235°; center of perimeter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Ocala, Fla. (Mun): 139°; on ramp near trml bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bludg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

•**Pahokee, Fla.:** 344°; overrun rnwy 35.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.

Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S and E/W txwys of arpt.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

Raleigh, N.C.: 244°; end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1–19 and 305′ from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn-around E end rnwy 25. Lctn #2—261°; in center of turn-around W end rnwy 7.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 261°; right 3 rnwy 33, marker.

Rome, Ga. (Russeell Fld): 348°; Intersection of taxiways 200′ S of the terminal bldg.

St. Paul, Minn., (Downtown Arpt): 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parking ramp 500′ SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis): 236°; E edge of ramp in front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santta Rosa Calif. (Sonoma Co. Arpt): 083.5°; SW corner main ramp.

Sante Fe, N. Mex. (New Municipal): 334°; at junction main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N trml bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposite trml bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

Sioux Falls, S. Dak.: 148°; in line with E edge of txwy W of ctl twr, 75′ S from N edge of parking ramp.

South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200′ N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400′ S of N end of taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans. (Philip Billard Arpt): 212°; N/S taxiway W of tetrahedron.

Truth or Consequences, N. Mex.: 157°; on NE/SW txwy 200′ NW of wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

Vichy, Mo.: 241°; on center line of NE/SW rnwy 125′ from NE end Rolla National Arpt.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex., (Muni): 132°; ramp N of terminal.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 051°; taxi strip at parking apron adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; vcnty of base operator ramp.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300′ from centerline rnwy 14–32.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1965

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL)
FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	X	
Balboa	FAA	X	
Cold Bay	FAA	X	
Dallas	BNF	X	
Guam	FAA	X	
Honolulu	ARINC	X	X
Miami	ARINC	X	X
New York	ARINC	X	X
New Orleans	ARINC	X	X
Okinawa	ARINC	X	X
Pago Pago	FAA	X	
Point Barrow	FAA	X	
San Francisco	ARINC	X	X
Shemya	FAA	X	
San Juan	ARINC	X	X
Seattle	ARINC	X	X
Wake Island	FAA	X	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

•LOCATION IDENTIFIERS

The following location identifiers are assigned:

X47	Bunnell, Florida, Bunnell Municipal Airport
X57	Ormond Beach, Florida, Ormond Beach Municipal Airport
04J	Darlington, South Carolina, Darlington County Airport
MPJ	Morrilton, Arkansas RBn and Petit Jean Arpt

• MEA, MCA, MOCA, MRA, MAA

Efctv immediately following flight procedures established: V-141, V-490, Ipswich INT, Mass. to Manchester, N.H. VOR MEA 2500', MOCA 1700'.

PLEASE NOTE!
CHANGE IN STANDARD FSS FREQUENCY

On October 14, 1965, the frequency 135.9 mc was discontinued and replaced with 123.6 mc.

SIMULTANEOUS OPPOSITE DIRECTION OPERATIONS ON PARALLEL RUNWAYS

Controls towers may authorize opposite direction operations on parallel runways, on parallel landing strips, or on a runway and a parallel landing strip, when the following conditions are met:

a. All operations are conducted in VFR conditions, two-way communications are maintained with the aircraft involved, and pertinent traffic information is issued.

b. For operations between sunrise and sunset, a distance of at least 1400 feet exists between parallel runway centerlines, between adjacent edges of parallel landing strips, or between adjacent edges of a runway and a parallel landing strip.

c. For operations between sunset and sunrise, a distance of 2800 feet exists between parallel runway centerlines. (Note: Simultaneous opposite direction operations are not authorized between sunset and sunrise on a runway and a parallel landing strip or on parallel landing strips.)

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V–282, V–203, V–91, V–475, DPK. Those at FL 180 and above will be routed via St. Eustache V–91, PLB, J–75, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V–487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–75, PLB, V–91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V–203, ALB, V–91, V–475, DPK. Those at FL 180 and above will be routed via G–1 Maxville, V–104, MSS, J–37, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V–91, ALB, V–203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–37, MSS, V–104, Maxville, G–1.

Flights from Toronto to Kennedy below FL 180 will be routed via V–36S, V–252, BGM, V–270, V–34, V–475, DPK. Those at FL 180 and above will be routed via V–36S, BUF, J–95, HUO, CMK, V–34, V–475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V–126, AVP, V–36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J–95, BUF, V–36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

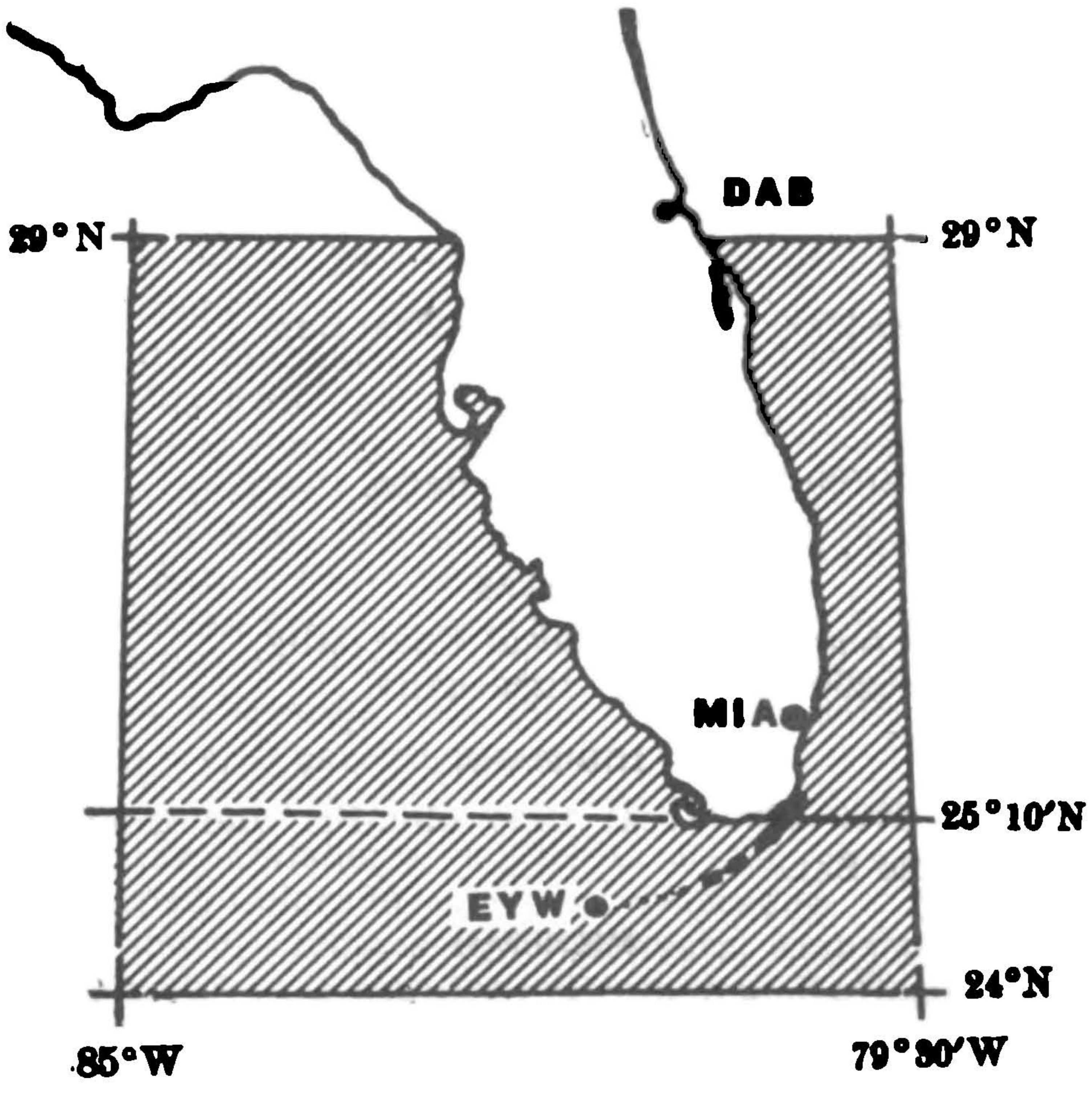
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

PART-TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

●**St. Petersburg, Albert Whitted Arpt:** Efctv June 1, 1966. 0600–2200 local time daily.

Sarasota: 0600–2200 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

Benton Harbor: 0730–2200 local time daily.

Escanaba: 0730–2200.

Ironwood: 0630–2030 local time daily.

Menominee: 0800–2130 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainerd: 0730–2030 local time daily.

Fairmont: 0715–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

Winona: 0900–1845 local time Mon–Fri and 0900–1630 local time Sat and Sun.

Worthington: 0800–1845 local time daily.

MISSOURI

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

Kearney: 0700–2200 daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730–2100 local time daily.

NORTH DAKOTA

Devils Lake: 0600–2300 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

●**Killeen:** 0600–2000 local time daily.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630- 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

Tacoma Industrial Arpt: 0500–2400 local time daily except Sat 0500–2100 local time.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

●**Janesville:** 0600–2300 local time Sun thru Fri and 0600–2200 local time Sat.

Manitowoc: 0800–2200 local time daily.

Rhinelander: 0700–2000 local time daily.

Stevens Point: 0700–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

g. To clear a departing aircraft via the route filed, the controller will state "CLEAR AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

The part-time manned facilities, the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0600–2000.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Montpelier, Vermont)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
●Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO–O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia Rivers. From takeoff climb to 1500′, reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000′ altitude. Stay over the River until passing through 3000′ altitude unless otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1-AND 2-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 1500′ prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 2000′ prior to turning oncourse unless instructed to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.

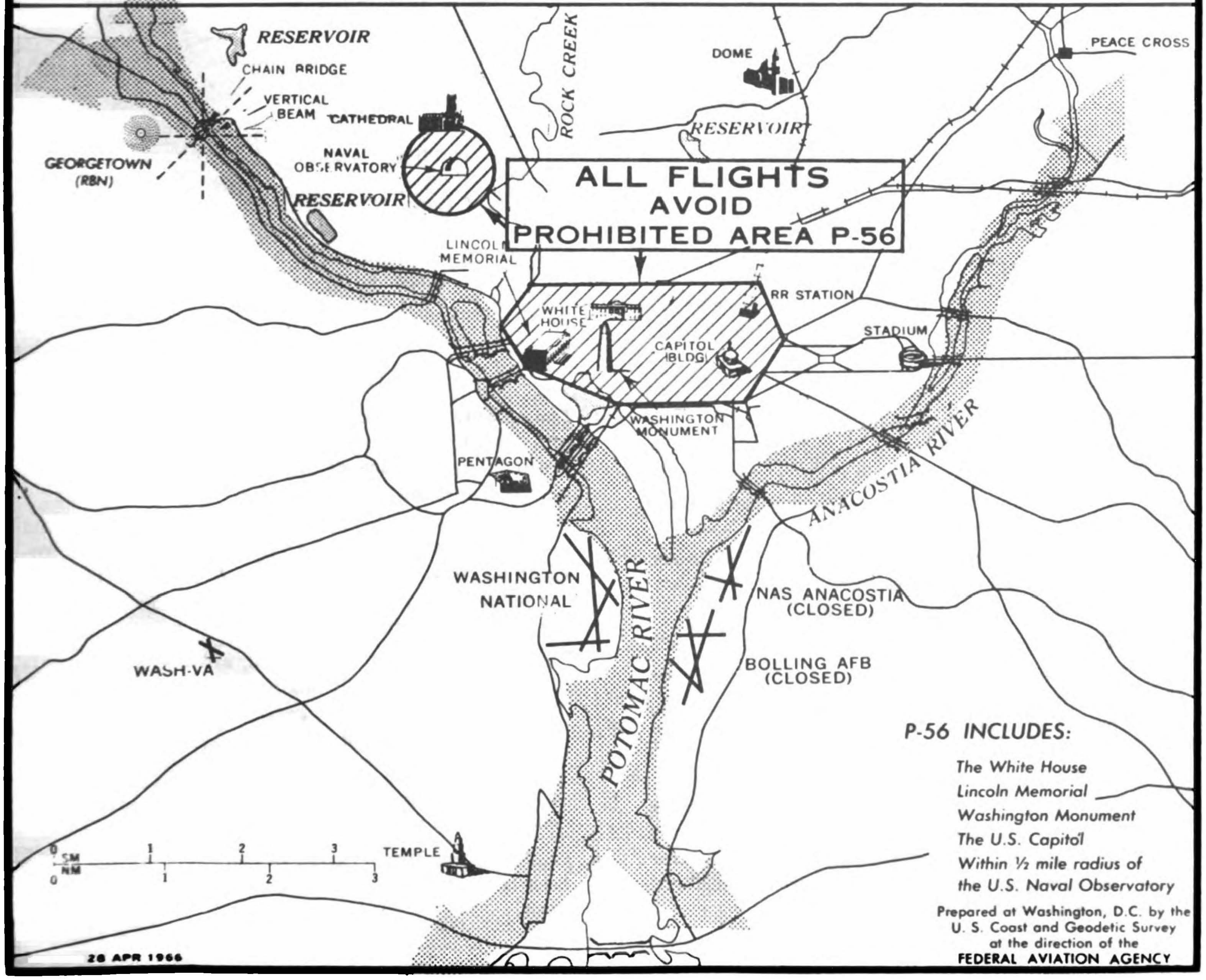
Remain at 2500′ or higher while en route to final.

When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.

A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.

On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.

If VFR go around is required, climb over the River to 2500′, enter traffic pattern for subsequent approach.


RESERVOIR
CHAIN BRIDGE
VERTICAL BEAM
CATHEDRAL
NAVAL OBSERVATORY
GEORGETOWN (RBN)
RESERVOIR
ROCK CREEK
DOME
RESERVOIR
PEACE CROSS
LINCOLN MEMORIAL
WHITE HOUSE
CAPITOL (BLDG)
RR STATION
STADIUM
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
POTOMAC RIVER
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
WASH-VA
TEMPLE
SM 0 1 2 3
NM 0 1 2 3

ALL FLIGHTS AVOID PROHIBITED AREA P-56

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of the U.S. Naval Observatory

Prepared at Washington, D.C. by the U. S. Coast and Geodetic Survey at the direction of the FEDERAL AVIATION AGENCY

28 APR 1966

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis.*
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

1. **Airspace North of V18N airway from the surface to 3000 feet MSL.**
2. **Airspace South of V18N airway from the surface to 2000 feet MSL.**
3. **All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   a. Airports within the Atlanta TRSA:
      (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
      (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   b. Airports underlying the Atlanta TRSA:
      (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
      (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   c. Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
   d. Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V-18N should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V-18N should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.

In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	''	Northwest
City of Rosewell and Chattahoochee River	'' ''	North
Dekalb-Peachtree Airport	''	Northeast
Stone Mountain	''	Northeast
Gunn Field	''	Northeast
City of Conyers	''	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	''	Southwest
Chattahoochee River	''	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

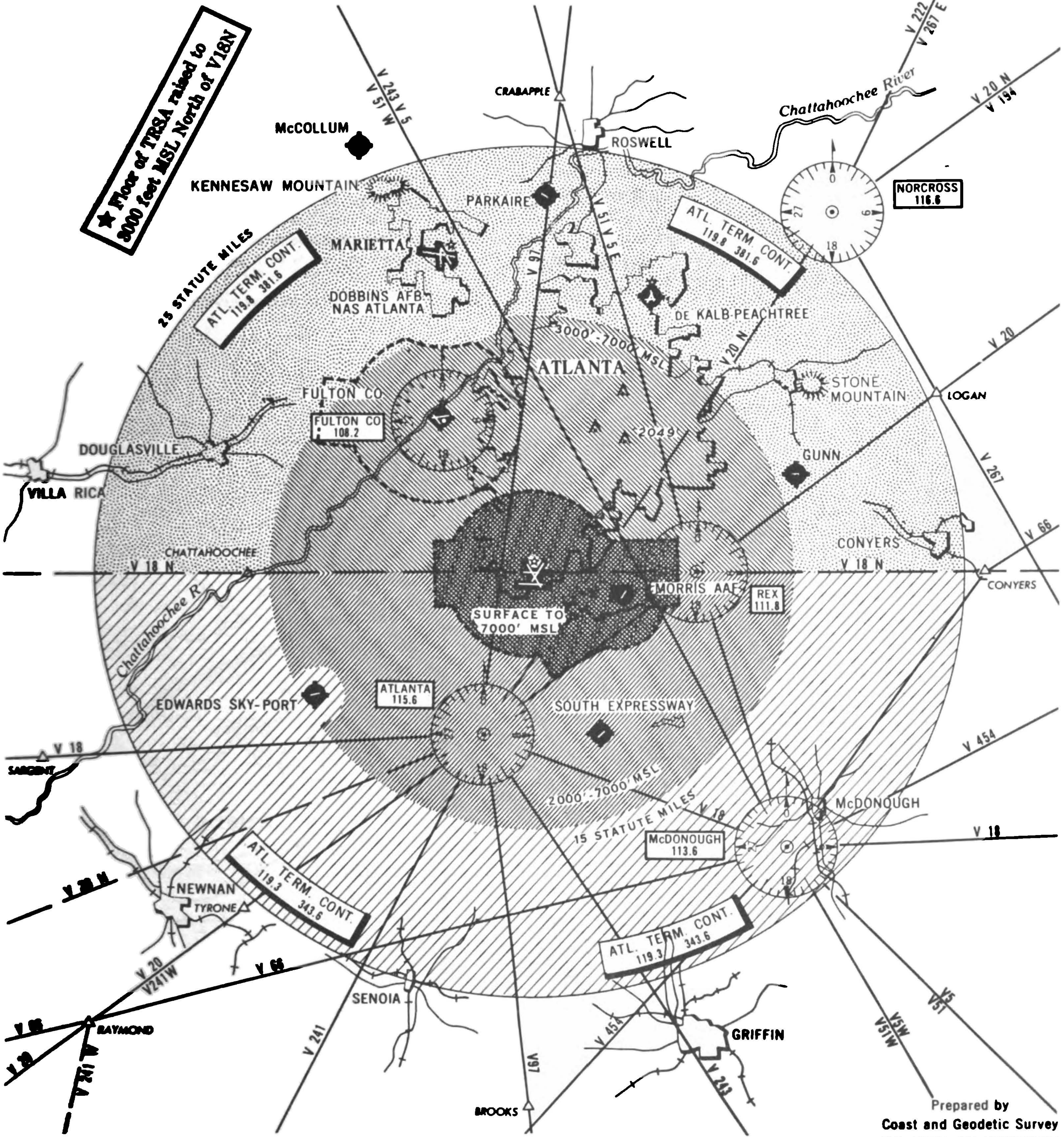
   Note.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.
4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024′ MSL

★ Floor of TRSA raised to 3000 feet MSL North of V18N


V 243 V 5
V 51 W
CRABAPPLE
ROSWELL
V 222
V 267 E
Chattahoochee River
V 20 N
V 194
McCOLLUM
KENNESAW MOUNTAIN
PARKAIRE
NORCROSS 116.6
0
9
18
27
ATL. TERM. CONT. 119.8 381.6
25 STATUTE MILES
ATL. TERM. CONT. 119.8 381.6
MARIETTA
DOBBINS AFB NAS ATLANTA
V 97
V 51 V 5 E
DE KALB-PEACHTREE
3000′-7000′ MSL
V 20 N
ATLANTA
V 20
FULTON CO
FULTON CO 108.2
STONE MOUNTAIN
LOGAN
2049
DOUGLASVILLE
VILLA RICA
GUNN
V 267
CONYERS
V 66
CHATTAHOOCHEE
V 18 N
V 18 N
CONYERS
MORRIS AAF
REX 111.8
SURFACE TO 7000′ MSL
Chattahoochee R.
EDWARDS SKY-PORT
ATLANTA 115.6
SOUTH EXPRESSWAY
V 18
SARGENT
V 454
2000′-7000′ MSL
V 18
15 STATUTE MILES
McDONOUGH
McDONOUGH 113.6
V 18
NEWNAN
TYRONE
ATL. TERM. CONT. 119.3 343.6
ATL. TERM. CONT. 119.3 343.6
V 20
V241W
V 66
SENOIA
V 66
V 20
RAYMOND
V 241 W
V 241
V 97
V 454
GRIFFIN
V 243
V51W
V5W
V5
V51
BROOKS

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA	▨ 2000′-7000′	■ SURFACE TO 7000′	▨ 3000′-7000′
CONTACT OR CALL-UP AREAS	North of V 18 N	░	
	South of V 18 N	▨	

GEORGIA

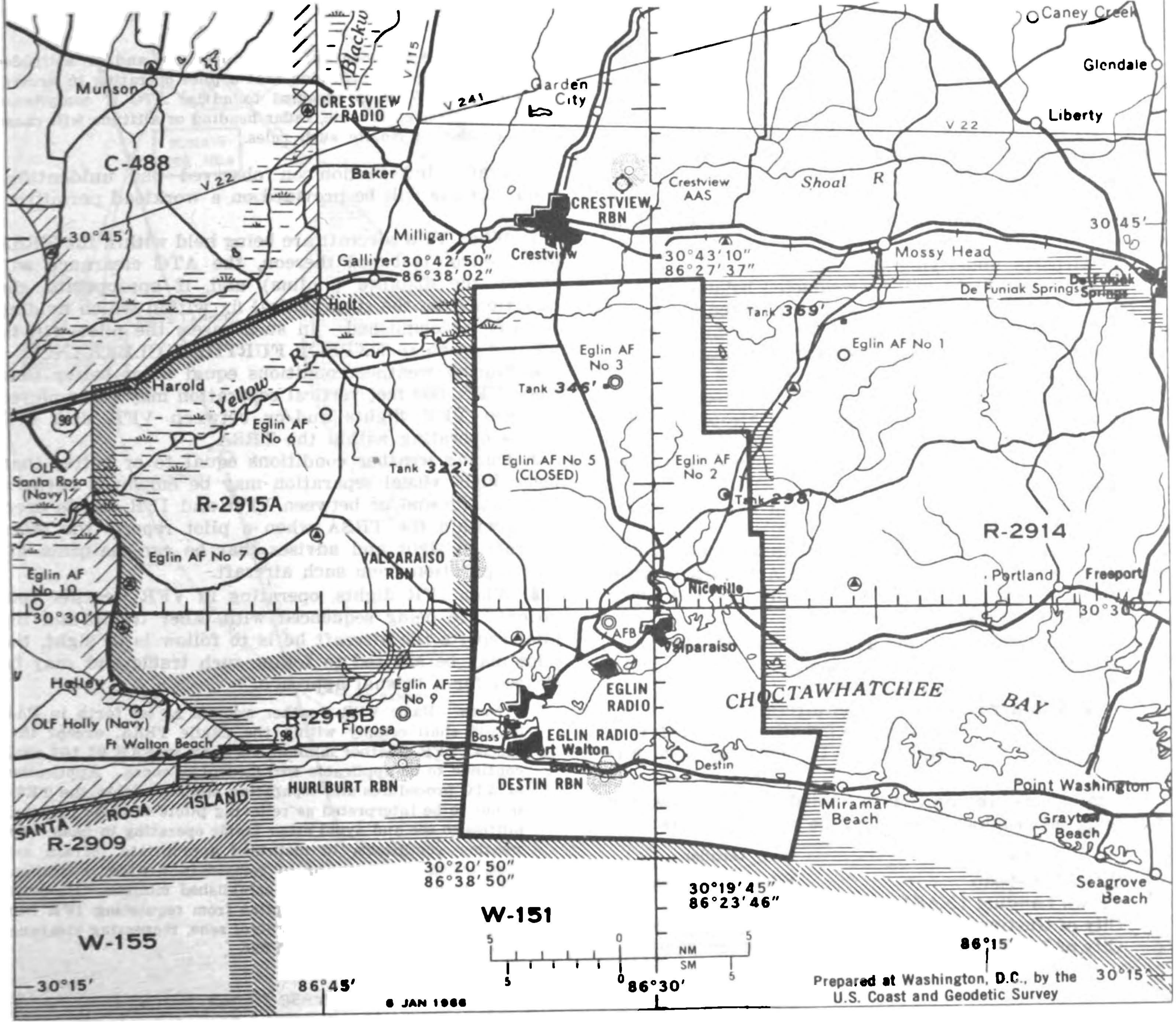
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.
6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES
(VFR OR VFR CONDITIONS)

***A special rule** in effect sunrise to sunset, Monday through Saturday requires pilots to **obtain information** about special activities operating between R-2914 and R-2915A and B. **These activities** use varying altitudes but altitudes for VFR flight are always available. **Contact Crestview Radio** (122.1,123.6,126.7) or Eglin RAPCON (119.3) for information.*


86°45'
86°15'
Munson
CRESTVIEW RADIO
C-488
V 22
V 241
V 115
Blackw
Garden City
Baker
Milligan
Galliver 30°42'50" 86°38'02"
Holt
30°45'
Harold
Yellow R
Eglin AF No 6
OLF Santa Rosa (Navy)
R-2915A
Eglin AF No 7
Eglin AF No 10
30°30'
Holley
OLF Holly (Navy)
Ft Walton Beach
R-2915B
Florosa
HURLBURT RBN
SANTA ROSA ISLAND
R-2909
W-155
30°15'
86°45'
Crestview AAS
CRESTVIEW RBN
Crestview
30°43'10" 86°27'37"
Shoal R
V 22
Mossy Head
De Funiak Springs
Caney Creek
Glendale
Liberty
30°45'
Tank 359'
Eglin AF No 1
Eglin AF No 3
Tank 345'
Tank 322'
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 298'
VALPARAISO RBN
Niceville
AFB
Valparaiso
Eglin AF No 9
EGLIN RADIO
Bass
EGLIN RADIO
Fort Walton Beach
DESTIN RBN
Destin
CHOCTAWHATCHEE BAY
R-2914
Portland
Freeport
30°30'
Point Washington
Miramar Beach
Grayton Beach
Seagrove Beach
30°20'50" 86°38'50"
30°19'45" 86°23'46"
W-151
5 0 5 NM
5 0 5 SM
86°30'
86°15'
30°15'

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

6 JAN 1966

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. IFR Flights—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. VFR Flights:

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West–Northwest
Crows Landing (NAS)	West
City of Gustine	West–Southwest
City of Los Banos	South–Southwest
City of Dos Palos	South
City of Chowchilla	East–Southeast
City of Madera	East–Southeast
City of Mariposa	East–Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

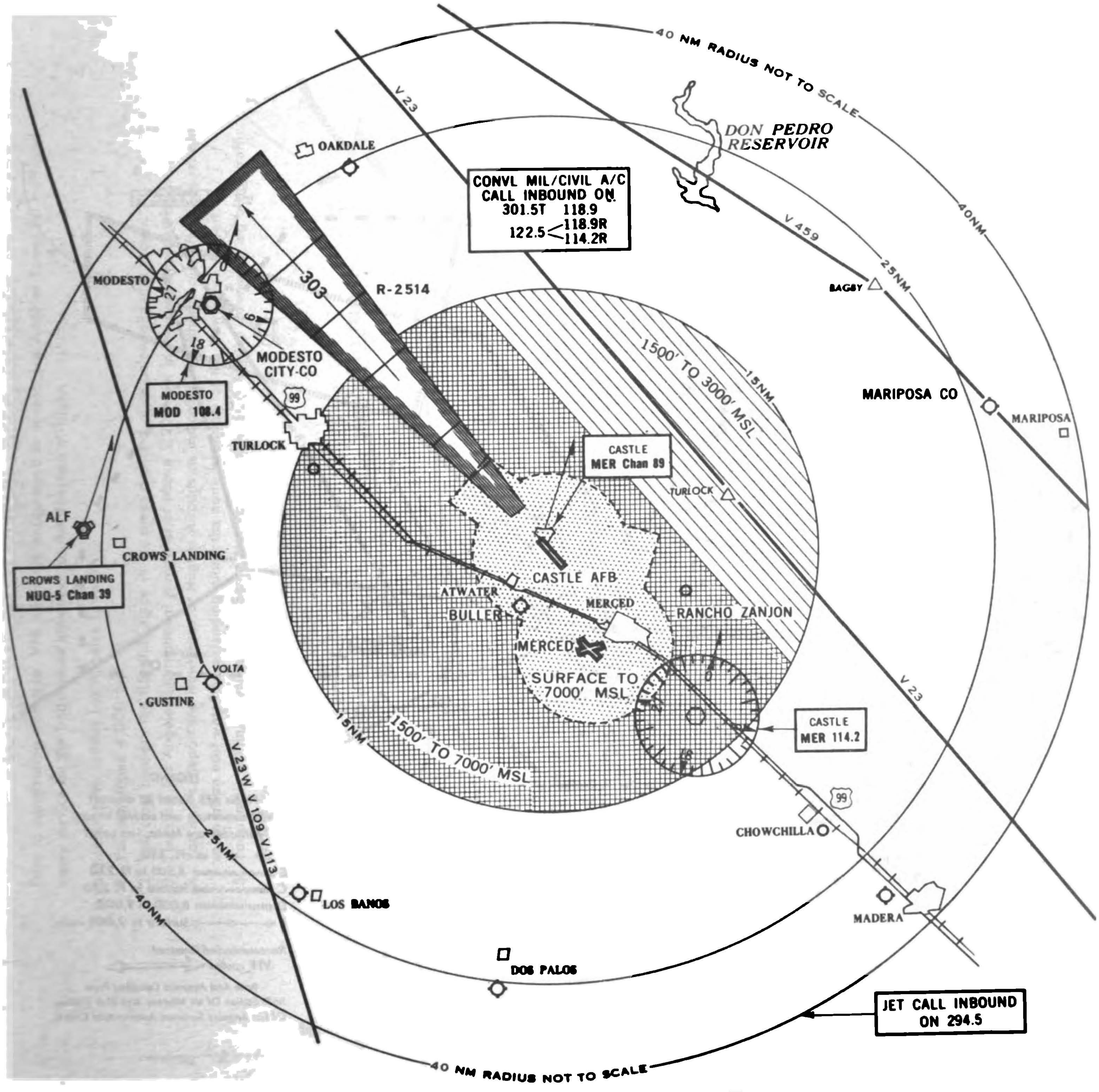
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188' MSL


40 NM RADIUS NOT TO SCALE
DON PEDRO RESERVOIR
OAKDALE
V 23
V 459
40NM
25NM
15NM
CONVL MIL/CIVIL A/C CALL INBOUND ON 301.5T 118.9 122.5<118.9R 114.2R
303
R-2514
MODESTO
MODESTO CITY-CO
MODESTO MOD 108.4
99
TURLOCK
BAGBY
MARIPOSA CO
MARIPOSA
1500' TO 3000' MSL
CASTLE MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING NUQ-5 Chan 39
CASTLE AFB
ATWATER
BULLER
MERCED
RANCHO ZANJON
MERCED
SURFACE TO 7000' MSL
VOLTA
GUSTINE
1500' TO 7000' MSL
CASTLE MER 114.2
V 23W V 109 V 113
CHOWCHILLA
LOS BANOS
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

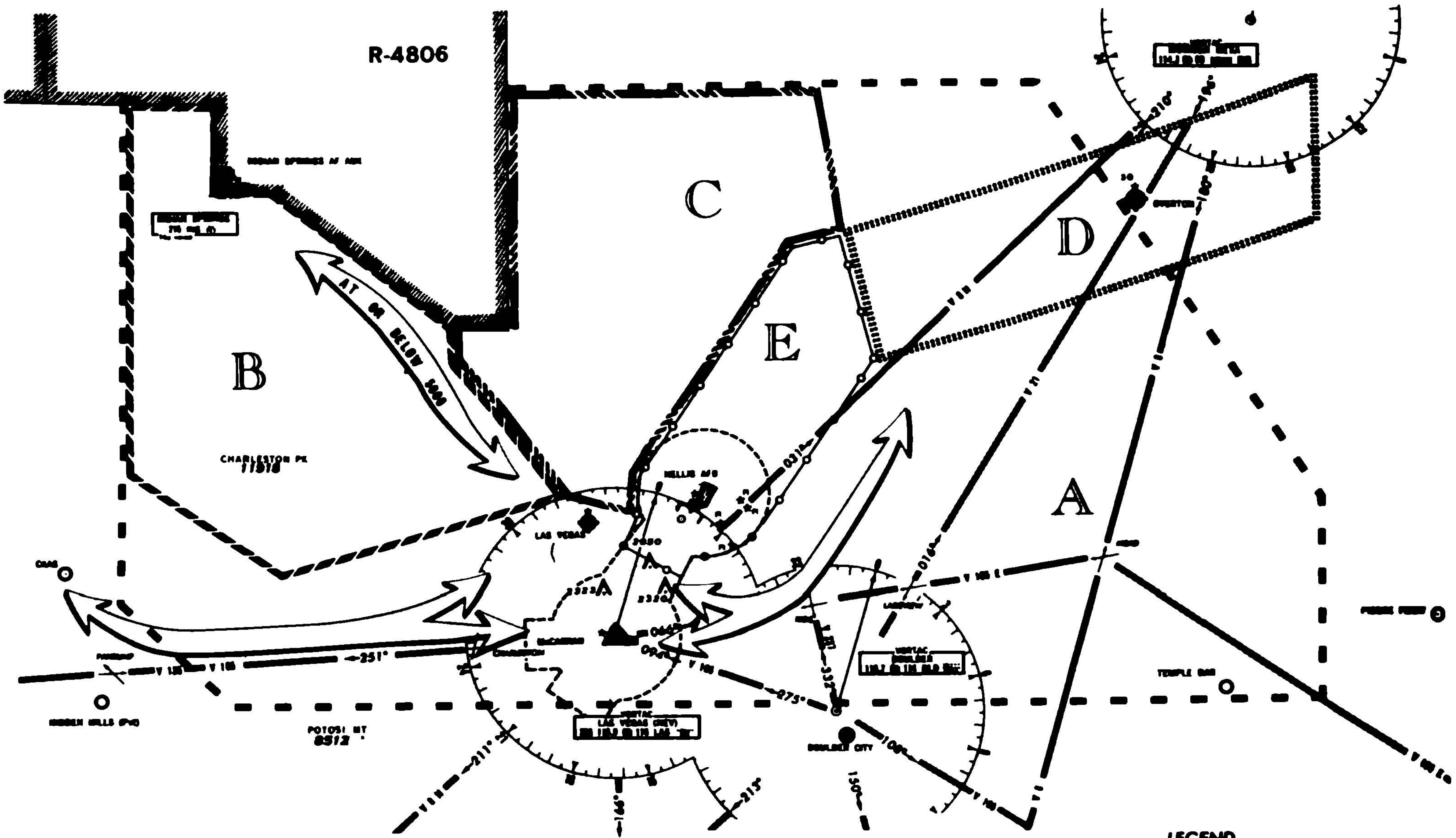
LEGEND

TERMINAL RADAR SERVICE AREA	▩ SURFACE TO 7000'	▨ 1500' TO 3000'	▦ 1500' TO 7000'

CONTACT OR CALL-UP AREAS CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA


R-4806
C
B
D
E
A
AT OR BELOW
CHARLESTON PK 11918
NELLIS AFB
LAS VEGAS
2323
2330
064°
031°
016°
275°
337°
108°
150°
164°
211°
215°
251°
160°
VORTAC LAS VEGAS (NEV)
VORTAC BOULDER
BOULDER CITY
POTOSI MT 8512
TEMPLE BAR

Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. *a. Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   - *● Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Mormon Mesa Vortac for flight information.*

   b. Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarron Field or Las Vegas Air Terminal.

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas.
Altitudes are Mean Sea Level

A ▬ ▬ ▬ FL 230
B ▰▰▰▰▰ 5,500 to FL 230
C ▬▬▬ Surface to FL 230
D ┊┊┊┊┊┊ 8,000 to 9,000
E ○——○——○ Surface to 9,000 inclv.

Recommended itinerant
VFR routes ⇔

Base And Airspace Compiled From
56th Edition Of Mt Whitney And 61st Edition
Of Los Angeles Sectional Aeronautical Charts

10 0 NAUTICAL 10 MILES 20 30 40 50
10 0 STATUTE 10 MILES 20 30 40 50

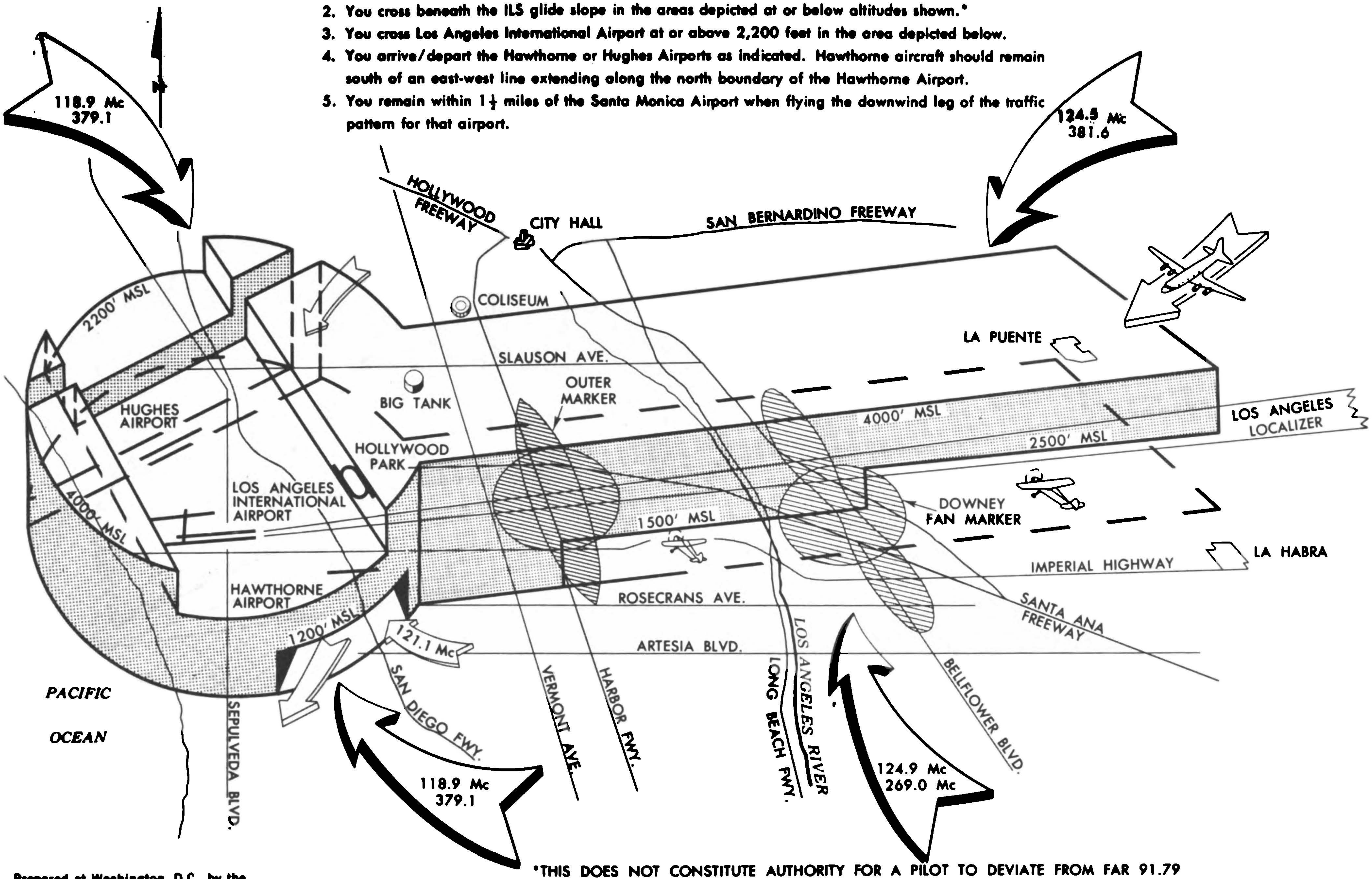
Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.


118.9 Mc
379.1
124.5 Mc
381.6
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
COLISEUM
2200' MSL
LA PUENTE
SLAUSON AVE.
OUTER MARKER
BIG TANK
HUGHES AIRPORT
4000' MSL
LOS ANGELES LOCALIZER
2500' MSL
HOLLYWOOD PARK
LOS ANGELES INTERNATIONAL AIRPORT
4000' MSL
DOWNEY FAN MARKER
1500' MSL
IMPERIAL HIGHWAY
LA HABRA
HAWTHORNE AIRPORT
ROSECRANS AVE.
SANTA ANA FREEWAY
1200' MSL
121.1 Mc
ARTESIA BLVD.
PACIFIC
OCEAN
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LOS ANGELES RIVER
LONG BEACH FWY.
BELLFLOWER BLVD.
SEPULVEDA BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

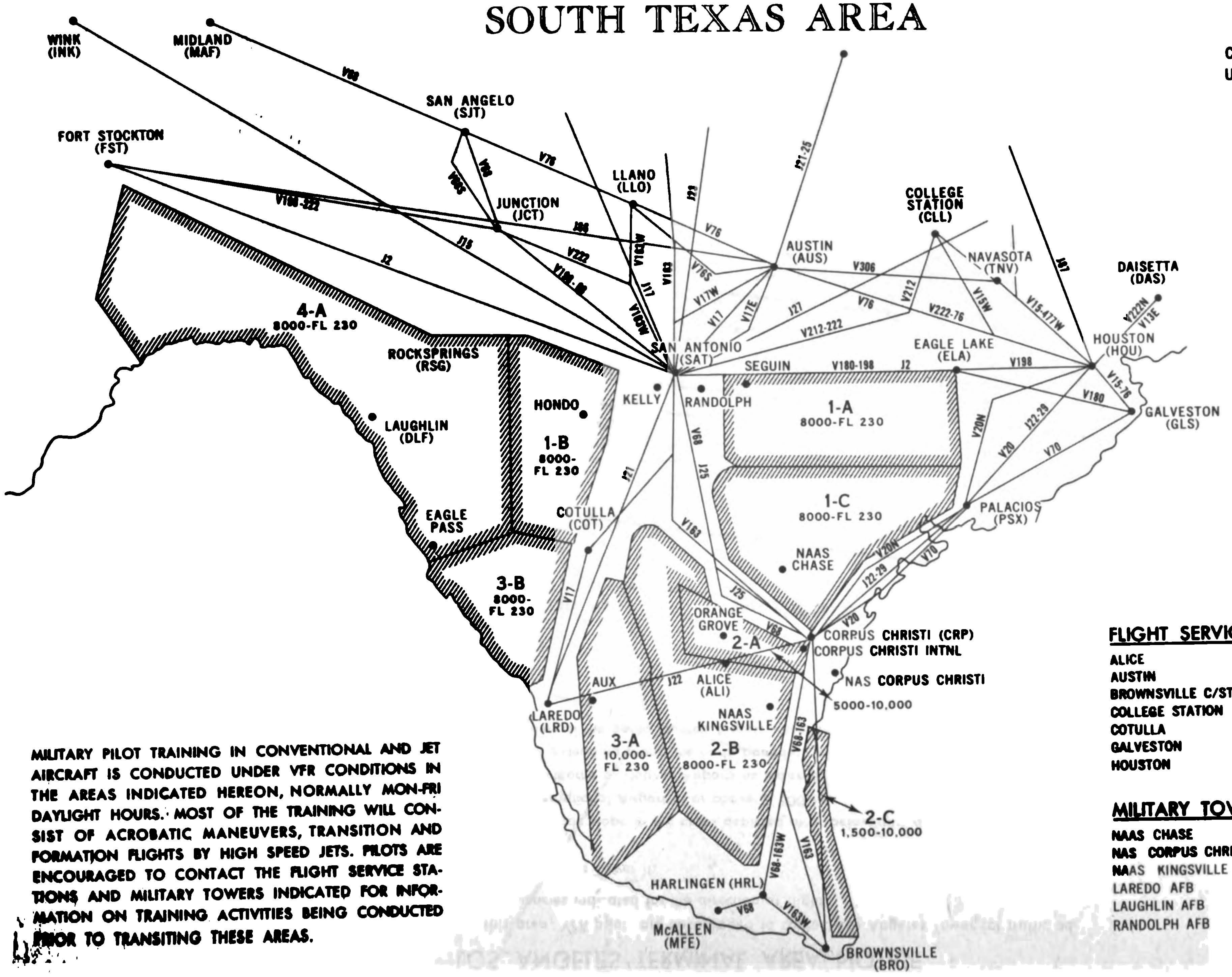
*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

22 JUL 1965

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN
SOUTH TEXAS AREA

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE


WINK (INK)
MIDLAND (MAF)
FORT STOCKTON (FST)
SAN ANGELO (SJT)
JUNCTION (JCT)
LLANO (LLO)
AUSTIN (AUS)
COLLEGE STATION (CLL)
NAVASOTA (TNV)
DAISETTA (DAS)
HOUSTON (HOU)
GALVESTON (GLS)
EAGLE LAKE (ELA)
SAN ANTONIO (SAT)
SEGUIN
KELLY
RANDOLPH
HONDO
ROCKSPRINGS (RSG)
LAUGHLIN (DLF)
EAGLE PASS
COTULLA (COT)
PALACIOS (PSX)
NAAS CHASE
ORANGE GROVE
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
ALICE (ALI)
NAAS KINGSVILLE
AUX
LAREDO (LRD)
HARLINGEN (HRL)
McALLEN (MFE)
BROWNSVILLE (BRO)
4-A 8000-FL 230
1-B 8000-FL 230
3-B 8000-FL 230
1-A 8000-FL 230
1-C 8000-FL 230
2-A
2-B 8000-FL 230
3-A 10,000-FL 230
2-C 1,500-10,000
5000-10,000
V66
V76
V68
V66S
V186-322
J2
J15
J86
V222
V186-66
V163
J17
V163W
J23
V76S
V17W
V17
V17E
J21-25
J27
V306
V212-222
V212
V222-76
V15W
V15-477W
J87
V222N
V13E
V180-198
V198
V180
V15-76
V20N
V20
J22-29
V70
J21
J25
V68-163
V68-163W
V163W
J22

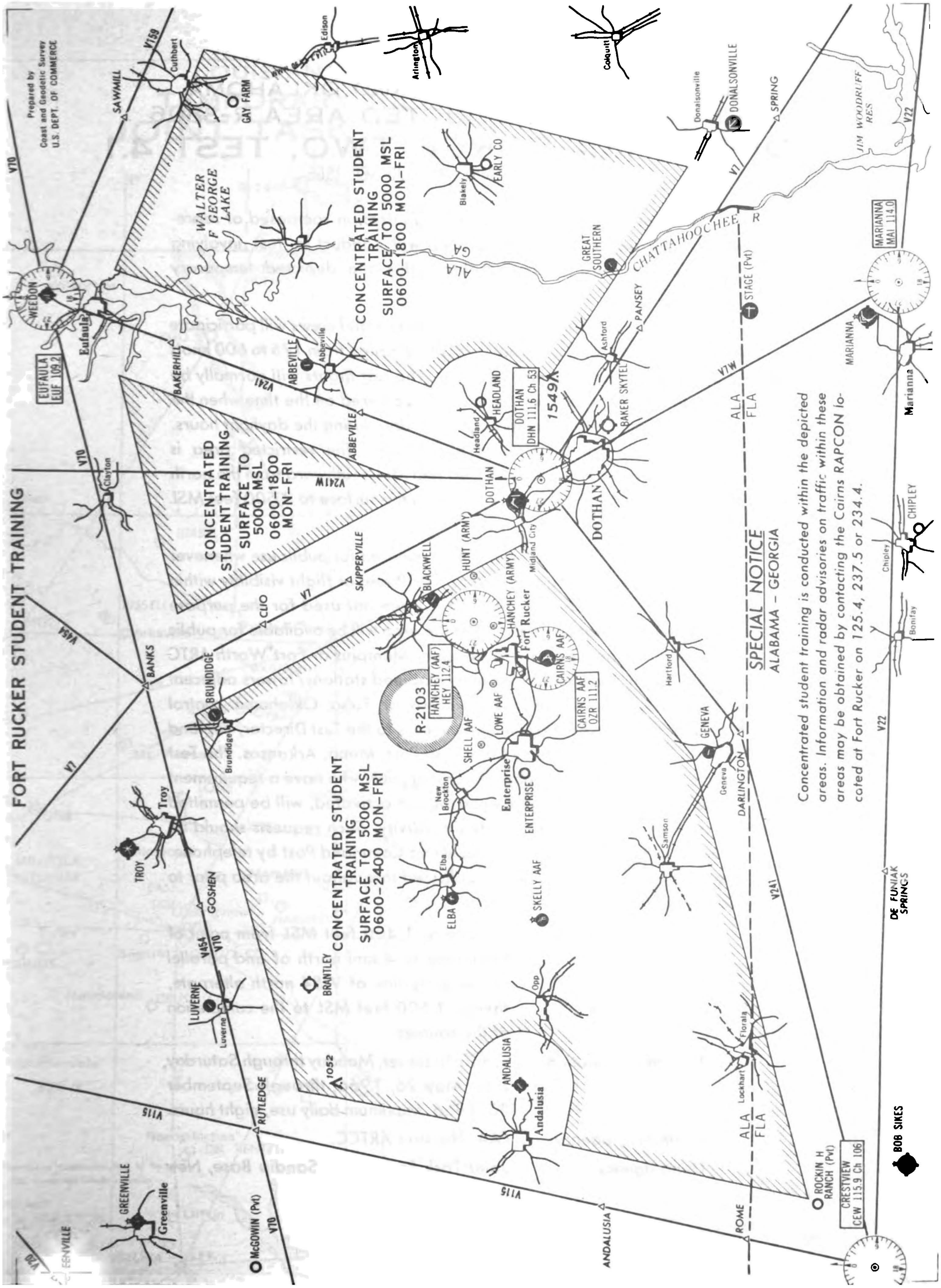
MILITARY PILOT TRAINING IN CONVENTIONAL AND JET AIRCRAFT IS CONDUCTED UNDER VFR CONDITIONS IN THE AREAS INDICATED HEREON, NORMALLY MON-FRI DAYLIGHT HOURS. MOST OF THE TRAINING WILL CONSIST OF ACROBATIC MANEUVERS, TRANSITION AND FORMATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE ENCOURAGED TO CONTACT THE FLIGHT SERVICE STATIONS AND MILITARY TOWERS INDICATED FOR INFORMATION ON TRAINING ACTIVITIES BEING CONDUCTED PRIOR TO TRANSITING THESE AREAS.

FLIGHT SERVICE STATIONS

ALICE
AUSTIN
BROWNSVILLE C/ST
COLLEGE STATION
COTULLA
GALVESTON
HOUSTON
JUNCTION
McALLEN
MIDLAND
PALACIOS
SAN ANGELO C/ST
SAN ANTONIO
WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	118.8 134.1
LAREDO AFB	122.5R 118.5T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2

FORT RUCKER STUDENT TRAINING


Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-2400 MON-FRI
WALTER F GEORGE LAKE
EUFAULA EUF 109.2
DOTHAN DHN 111.6 Ch 53
HANCHEY (AAF) HEY 112.4
CAIRNS AAF OZR 111.2
MARIANNA MAI 114.0
CRESTVIEW CEW 115.9 Ch 106
R-2103
1549
ALA GA
ALA FLA
CHATTAHOOCHEE R
JIM WOODRUFF RES
V7
V7W
V10
V22
V115
V159
V241
V241W
V454
1454
1012
WEEDON
Eufaula
SAWMILL
Cuthbert
GAY FARM
Edison
Arlington
Colquitt
Donalsonville
DONALSONVILLE
SPRING
EARLY CO
Blakely
GREAT SOUTHERN
PANSEY
Ashford
BAKER SKYTEL
STAGE (Pvt)
Marianna
MARIANNA
CHIPLEY
Chipley
Bonifay
DE FUNIAK SPRINGS
BOB SIKES
ROCKIN H RANCH (Pvt)
ROME
ANDALUSIA
Andalusia
Lockhart
Florala
Opp
Samson
Geneva
GENEVA
DARLINGTON
Hartford
DOTHAN
Dothan
HEADLAND
Headland
Midland City
ABBEVILLE
Abbeville
BAKERHILL
Clayton
CLIO
SKIPPERVILLE
BLACKWELL
HUNT (ARMY)
HANCHEY (ARMY)
Fort Rucker
LOWE AAF
SHELL AAF
Enterprise
ENTERPRISE
New Brockton
Elba
ELBA
SKELLY AAF
BANKS
BRUNDIDGE
Brundidge
Troy
TROY
GOSHEN
LUVERNE
Luverne
BRANTLEY
RUTLEDGE
GREENVILLE
Greenville
McGOWIN (Pvt)

SPECIAL NOTICE

ALABAMA – GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns RAPCON located at Fort Rucker on 125.4, 237.5 or 234.4.

LOUISIANA, ARKANSAS AND OKLAHOMA
TEMPORARY RESTRICTED AREA R-3806
JOINT TASK FORCE TWO, TEST 4.1

EFFECTIVE 26 MAY THRU 30 SEP 1966

Joint Task Force Two (JTF-2) an organization composed of representatives from all military services will conduct a test involving approximately 600 aircraft flights within the depicted temporary restricted area.

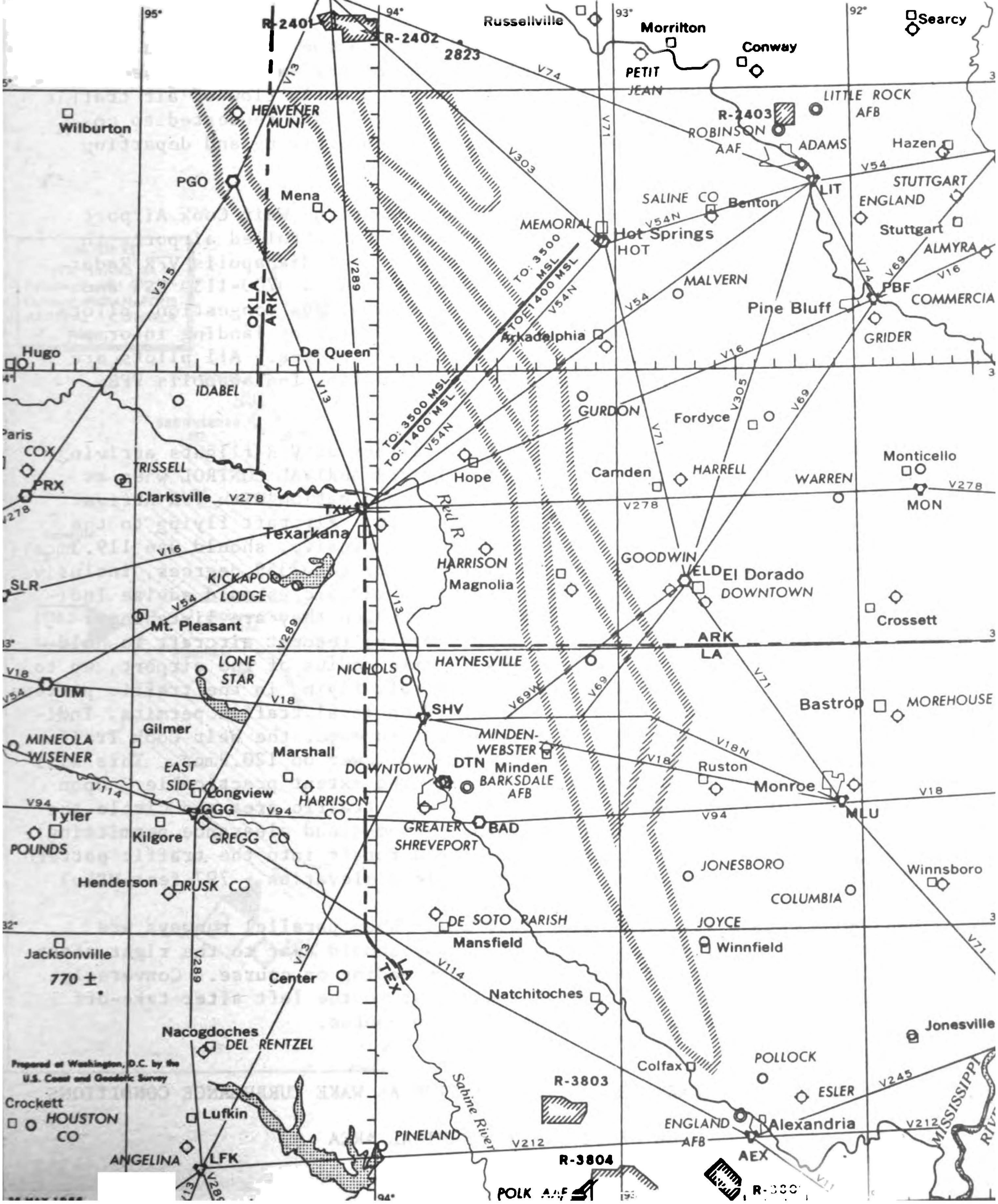
Navy, Marine, Army and Air Force aircraft and crews will participate in the test. Speeds of the various aircraft will range from 175 to 600 knots at altitudes normally below 500 feet. The test flights will normally be conducted within a six-hour period daily centered on the time when the sun is at its zenith, Monday through Saturday during the daylight hours. Maximum daily use by JTF-2 is eight hours. The restricted area is designated from the surface to 1,400 feet MSL southward from the north boundary of Victor Airway 54N and from the surface to 3,500 feet MSL north of V-54N.

This joint use restricted area will be released for public use whenever the ceiling over the area is less than 3,000 feet or flight visibility within is below five miles and at other times when not used for the purpose designated. Information on the times the area will be available for public use may be obtained from the Houston, Memphis or Fort Worth ARTC Centers, Flight Service Stations and combined stations/towers adjacent to the area, the Hot Springs, Arkansas or Tulsa, Oklahoma control towers, or by reverse charge telephone calls to the Test Director, England AFB, Louisiana, or the Mena Command Post, Mena, Arkansas. The Test Director has advised that nonparticipating pilots who have a requirement to use the restricted airspace even though activated, will be permitted use of the area subject to test flight activity. Such requests should be directed to the Test Director or the Mena Command Post by telephone. The telephone numbers will be publicized throughout the area prior to the start of the test.

Designated altitudes:	*Surface to 1,400 feet MSL from point of beginning to 4 nmi north of and parallel to the centerline of V-54 north alternate, thence 3,500 feet MSL to the completion of the courses.*
Time of designation:	*Sunrise to sunset, Monday through Saturday from May 26, 1966, through September 30, 1966. Maximum daily use, eight hours.*
Controlling agency:	*FAA, Houston ARTCC.*
Using agency:	*Joint Task Force Two, Sandia Base, New Mexico.*

LOUISIANA, ARKANSAS AND OKLAHOMA
TEMPORARY RESTRICTED AREA R-3806
JOINT TASK FORCE TWO, TEST 4.1

EFFECTIVE 26 MAY THRU 30 SEP 1966


R-2401
R-2402
2823
Russellville
Morrilton
Conway
Searcy
PETIT JEAN
LITTLE ROCK AFB
R-2403
ROBINSON AAF
ADAMS
Hazen
LIT
STUTTGART
ENGLAND
Stuttgart
ALMYRA
SALINE CO
Benton
MEMORIAL
Hot Springs
HOT
MALVERN
PBF
Pine Bluff
COMMERCIA
GRIDER
Wilburton
HEAVENER MUNI
PGO
Mena
OKLA
ARK
De Queen
Hugo
IDABEL
Arkadelphia
TO: 3500 MSL
TO: 1400 MSL
GURDON
Fordyce
Paris
COX
TRISSELL
PRX
Clarksville
TXK
Texarkana
Hope
Camden
HARRELL
WARREN
Monticello
MON
Red R
HARRISON
Magnolia
GOODWIN
ELD
El Dorado
DOWNTOWN
Crossett
SLR
KICKAPOO LODGE
Mt. Pleasant
LONE STAR
NICHOLS
HAYNESVILLE
ARK
LA
UIM
SHV
Bastrop
MOREHOUSE
MINEOLA WISENER
Gilmer
Marshall
EAST SIDE
Longview
DOWNTOWN
DTN
MINDEN-WEBSTER
Minden
BARKSDALE AFB
Ruston
Monroe
MLU
Tyler
POUNDS
GGG
Kilgore
GREGG CO
HARRISON CO
GREATER SHREVEPORT
BAD
JONESBORO
COLUMBIA
Winnsboro
Henderson
RUSK CO
DE SOTO PARISH
Mansfield
JOYCE
Winnfield
Jacksonville
770 ±
Center
LA
TEX
Natchitoches
Jonesville
Nacogdoches
DEL RENTZEL
Colfax
POLLOCK
R-3803
ESLER
Crockett
HOUSTON CO
Lufkin
PINELAND
Sabine River
ENGLAND AFB
Alexandria
AEX
MISSISSIPPI RIV
ANGELINA
LFK
R-3804
POLK AAF
V13
V74
V71
V303
V289
V315
V54
V54N
V16
V305
V69
V278
V18
V69W
V18N
V114
V94
V212
V245
V11
95°
94°
93°
92°
32°

Prepared at Washington, D.C. by the U.S. Coast and Geodetic Survey

SPECIAL VFR AIR TRAFFIC PROCEDURES FOR RACE DAY, MAY 30, 1966

WEIR COOK AIRPORT, INDIANAPOLIS, IND., FIELD ELEVATION 797'

Due to the large volume of VFR traffic anticipated in the Indianapolis area on "Race Day," May 30, 1966, the Federal Aviation Agency has established the following special procedures to maintain the safe, orderly flow of air traffic operating at Weir Cook Airport. Pilots of VFR flights are requested to co-operate by adhering to these special procedures when arriving and departing Weir Cook Airport.

GENERAL INFORMATION: All aircraft arriving and departing Weir Cook Airport are cautioned of high density traffic operating at uncontrolled airports in the Indianapolis area. Be alert; watch for traffic. Indianapolis VFR Radar Traffic Information Service will not be available between 0700-1130 EST and between 1530-1830 EST. In order to relieve communications congestion, pilots are requested to keep radio transmissions brief. Pertinent landing information will be transmitted continuously on frequency 110.5mcs. All pilots are requested to obtain this information prior to contacting Indianapolis VFR Arrival Control.

ARRIVAL PROCEDURES - Effective 0700-1130 EST: Pilots of VFR flights arriving Weir Cook Airport should report to INDIANAPOLIS VFR ARRIVAL CONTROL when at least 10 miles from the airport and remain in communication with VFR Arrival Control until advised to contact Indianapolis Tower. Aircraft flying to the airport on headings of 0 degrees to 179 degrees, inclusive, should use 119.3mcs. Those flying to the airport on headings of 180 degrees to 359 degrees, inclusive, should use 118.5mcs. Pilots who must transmit on 122.5mcs should advise Indianapolis VFR Arrival Control of the frequency to which they are listening. Indianapolis VFR Arrival Control will, if necessary, request aircraft to hold outside the Weir Cook Airport Traffic Area (5 mile radius of the airport, up to 2800' MSL) in order to limit the number of aircraft flying in the traffic pattern over which traffic control can be exercised. When local traffic permits, Indianapolis VFR Arrival Control will clear aircraft to enter the Weir Cook Traffic Area and advise the pilot to contact Indianapolis Tower on 120.9mcs. This will be done on a first-come, first-served basis, to the extent practicable. Upon receipt of such clearance, aircraft will enter the traffic area and circle the airport to the left at 2300' MSL (VFR distance-from-cloud clearance permitting). Indianapolis Tower will subsequently clear the aircraft into the traffic pattern (1600' MSL) and assign a landing sequence. (Field elevation - 797 feet MSL.)

DEPARTURE PROCEDURES - Effective 1530-1830 EST: When parallel runways are utilized, aircraft departing on the right runway should bear to the right after take-off and depart the traffic area before proceeding on course. Conversely, aircraft departing on the left runway should bear to the left after take-off and depart the traffic area before proceeding on course.

ALL PILOTS ARE URGED TO EXERCISE EXTREME CAUTION AS WAKE TURBULANCE CONDITIONS

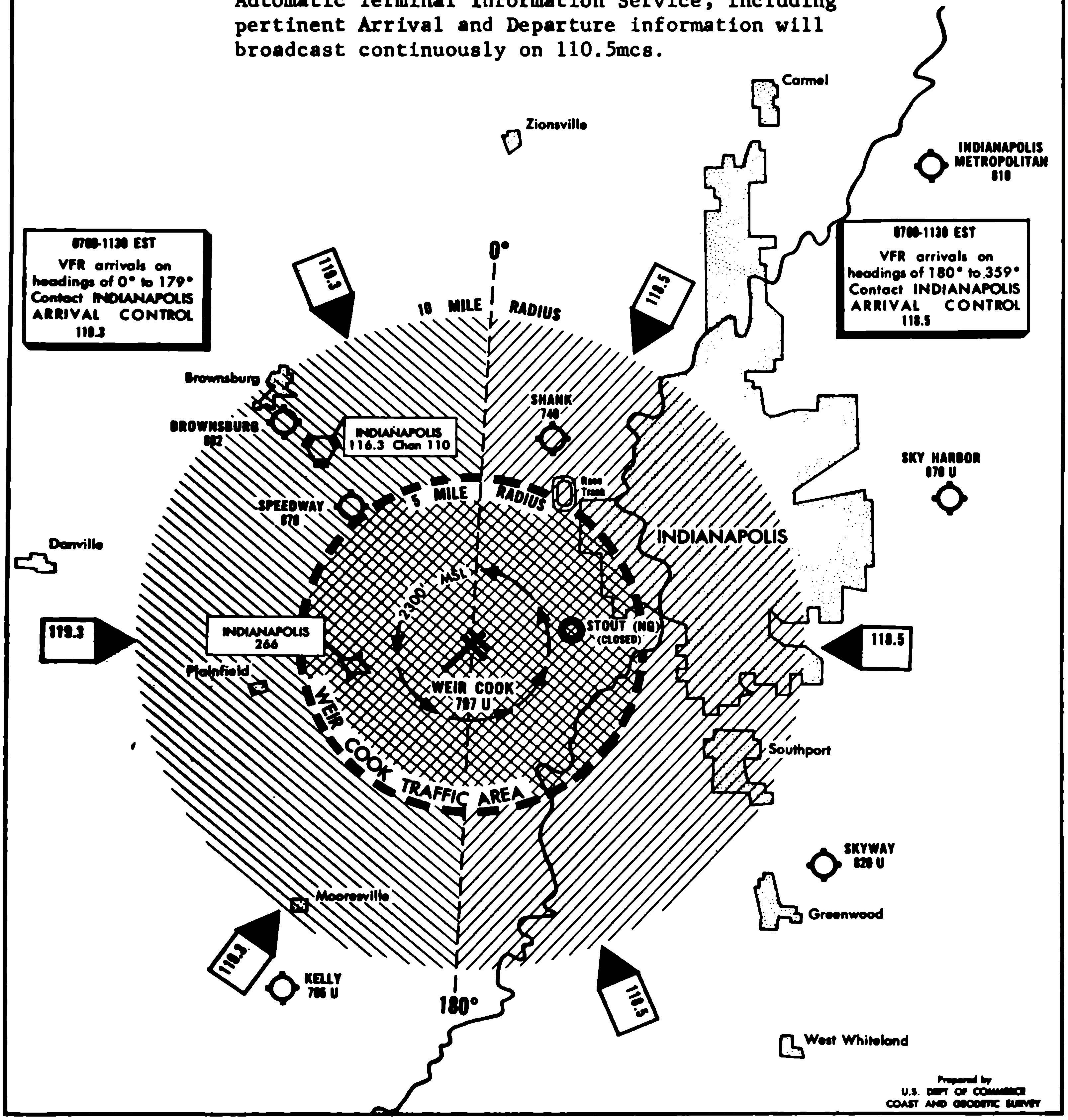
WILL EXIST IN THE TERMINAL AREA

MEMORIAL DAY VFR ARRIVALS

WEIR COOK AIRPORT – INDIANAPOLIS, IND.

FIELD ELEVATION 797 FEET MSL

Automatic Terminal Information Service, including pertinent Arrival and Departure information will broadcast continuously on 110.5mcs.



0700-1130 EST
VFR arrivals on
headings of 0° to 179°
Contact INDIANAPOLIS
ARRIVAL CONTROL
119.3

0700-1130 EST
VFR arrivals on
headings of 180° to 359°
Contact INDIANAPOLIS
ARRIVAL CONTROL
118.5

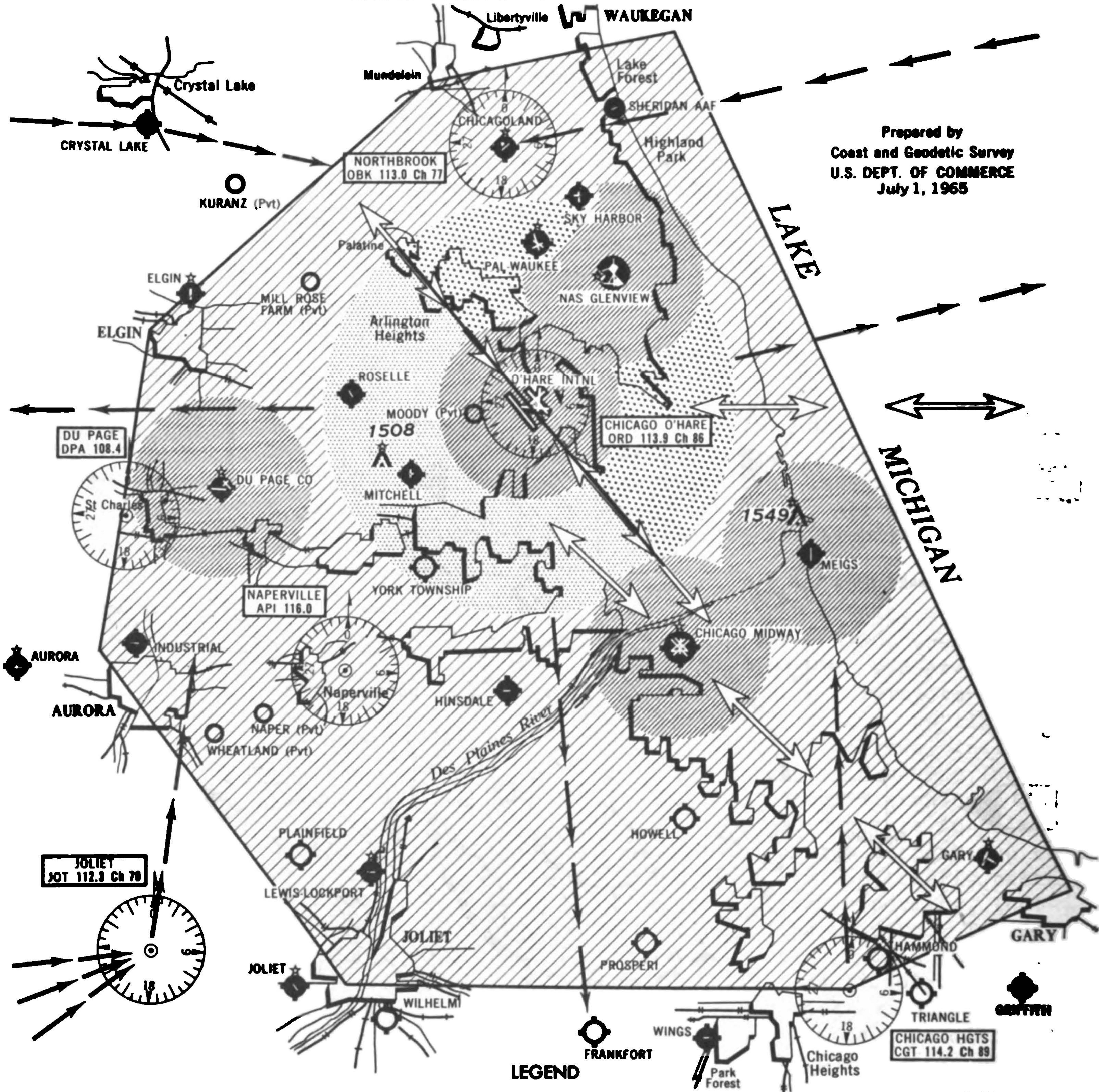
Carmel
Zionsville
INDIANAPOLIS METROPOLITAN 810
0°
119.3
118.5
10 MILE RADIUS
Brownsburg
BROWNSBURG 892
INDIANAPOLIS 116.3 Chan 110
SHANK 740
Race Track
SKY HARBOR 870 U
SPEEDWAY 870
5 MILE RADIUS
Danville
INDIANAPOLIS
2300' MSL
STOUT (NG) (CLOSED)
119.3
118.5
INDIANAPOLIS 266
Plainfield
WEIR COOK 797 U
WEIR COOK TRAFFIC AREA
Southport
SKYWAY 820 U
Mooresville
Greenwood
119.3
KELLY 705 U
180°
118.5
West Whiteland

Prepared by
U.S. DEPT OF COMMERCE
COAST AND GEODETIC SURVEY

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Mundelein
Crystal Lake
CRYSTAL LAKE
Lake Forest
SHERIDAN AAF
CHICAGOLAND
NORTHBROOK
OBK 113.0 Ch 77
Highland Park
KURANZ (Pvt)
SKY HARBOR
Palatine
PAL-WAUKEE
NAS GLENVIEW
ELGIN
MILL ROSE FARM (Pvt)
ELGIN
Arlington Heights
ROSELLE
O'HARE INTNL
MOODY (Pvt)
1508
CHICAGO O'HARE
ORD 113.9 Ch 86
DU PAGE
DPA 108.4
DU PAGE CO
MITCHELL
St Charles
1549
MEIGS
NAPERVILLE
API 116.0
YORK TOWNSHIP
AURORA
INDUSTRIAL
CHICAGO MIDWAY
AURORA
Naperville
HINSDALE
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
GARY
JOLIET
JOT 112.3 Ch 70
LEWIS-LOCKPORT
JOLIET
PROSPERI
HAMMOND
GARY
JOLIET
WILHELMI
TRIANGLE
GRIFFITH
FRANKFORT
WINGS
Park Forest
Chicago Heights
CHICAGO HGTS
CGT 114.2 Ch 89
LAKE MICHIGAN

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500' MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500' MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

▦ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L

░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▩ AIRPORT TRAFFIC AREA – – CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC ⟶

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

- **Area Within Which Service is Provided:** Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service Is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc then Indianapolis Departure Radar Service, 121.3 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 034° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. inbound on 282° thru 100° use 121.1 mc or 360.8 mc; **Departure freq:** 120.4 or 381.4 mc when advised by tower.

Norfolk Municipal Airport, Virginia

Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 127.2 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting, will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF."

●Washington National Airport District of Columbia

Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P-56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 128.8 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information Service (WTIS) on 128.8 mc or 306.3 mc.

• NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective November 1966.

Alabama

Athens, Magnusson Fld 1E
Bayou La Batre, Roy E. Ray 4NE
Jackson Muni 2S
St. Elmo, Sky Ranch 2.5N

Arizona

Arizona City 1S
Bouse 0.5E

California

Culver City, Hughes 3 SW
Pleasant Grove, Van Dyke 3 N

Colorado

Greeley, Easton 7.5SE

Florida

Winter Haven Muni Seaplane Base 3 NNW

Georgia

Asburn, Turner Co. 1 SW
Canon, Franklin Co. 2.5 SW
Jesup, Redlands 5 NW
Patterson, Forestry 2 SE
Sylvester, Worth County 4 NW

Illinois

Baldwin, Redpath 2 E

Indiana

Mentone, Manwaring 0.8 NW

Iowa

Mount Veron, Tonne 4.0 N
Sidney, Knox 3 WSW
Wapello, Brockway Flying B 2.5 NW

Louisiana

Belle Rose, Cone Air 1 W
Cottonport Flying Service 0.3 W
Coushatta, Hanna 1 S
Melville, Hanks 1 S
Mer Rouge, Bacon 1 S
Mora, James 4 E
Patterson, Tri Ville Aviation Inc Seaplane Base 1 SE
St. Joseph, Hunter May 4 N
Shreveport, Aero Enterprises 7.1 S
Starks 3 S
Tendal 4 B Ranch 2 SE
Transylvania, Batton 3 W

Mississippi

Fort Adams, Kees Ranch 8 N
Lucidale, Farmco Fld 11 S
Monticello, Clay 1 N
Tylertown 2.5 NW

Missouri

Desota 0.5 E

Nevada

Coaldale 1 S
Fernley, Southwest Gas Airstrip 3 SE
Round Mountain 15 N

New Jersey

Newton 1.9 S

New York

Albany, Tallent Fld 6.5 SW (a)
Brant Air Service Landing Area 1 SW
Kerhonkson, Piolis Brookside 4 NNW (c)
Lafargeville, Tims Angus Farms 3E (c)

Texas

Grandview, McLeroy Ranch 2 NNW
Honey Grove, Burchinal 2 W
Laredo, Link Ranch 6 S
Martin, Huff Fld 1 SE
Mesquite, Cole 5 SE
Port Lavaca, Calhoun County 4 NW
Sabinal, McCullough Ranch 12 N
Vernon, Lockett 6 SW

West Virginia

Alderson, Riverside 1 W

Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

Louisiana

Wisner Airstrip 1 W(c)

Mississippi

Belzoni Charter Service 1 E(a)
Magnolia, Progress 10 SE(a)

Missouri

St. Joseph, Eastside 1 E(a)

New York

Albany, Tallent Fld 6.5 SW(a)
Kerhonkson, Piolis Brookside 4 NNW(c)
Lafargeville, Tims Angus Farms 3 E (c)

North Carolina

Gibsonville, McLean Bros 1 SW(c)

Ohio

Norwalk, 2N (a)
Tiffin, Circle V Flying Fld 4SW (a)

Oklahoma

Muscogee, Schumacher 3 S(a)

Texas

Palacios, Richman 5 NE (c)

Utah

Torrey 1 S (a)

Wisconsin

Plymouth, Carm 2 NW (a)

MILITARY AERIAL REFUELING TRACKS

Effective February 7, 1966

•

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 072/88		FSD 003/67.
		MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 092/77		FSD 346/42.
		MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N. Dak., S. Dak.	FAR 225/42		SAW 242/39.
		SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N. Dak., S. Dak.	ABR 038/37		SAW 219/62.
		SAW 151/64		FAR 137/65.
AR-110 Advance	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
	•	LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
AR-307 Big Fish	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
AR-308 Blue Cross	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription. on request to the Director, Coast and Geodetic Survey, 14th and Constitution Avenue, N.W., Washington D.C. 20230 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section I-A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B–52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,300' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL: to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

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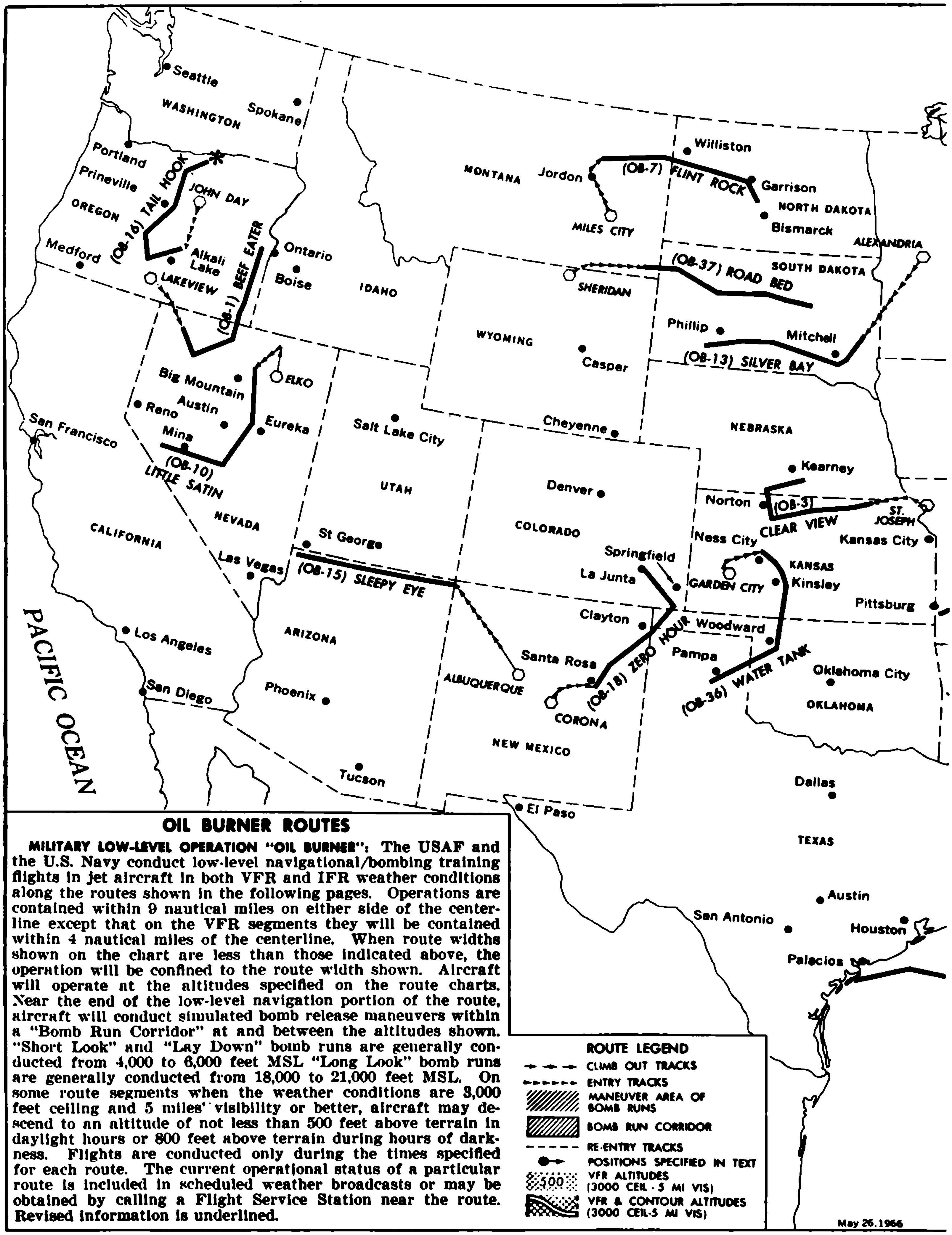
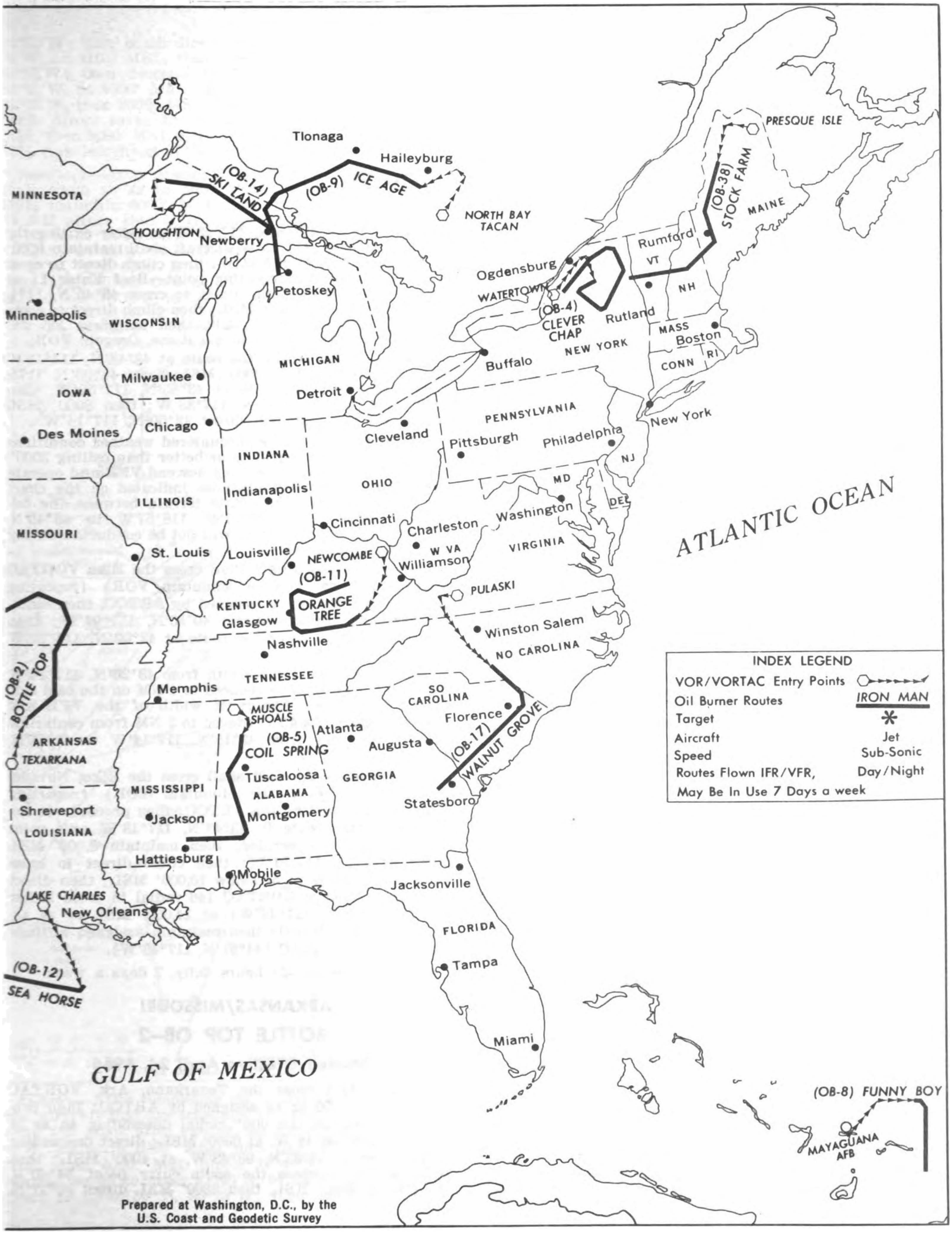

Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
LAKEVIEW
(OB-1) BEEF EATER
Ontario
Boise
IDAHO
MONTANA
Jordon
(OB-7) FLINT ROCK
MILES CITY
Williston
Garrison
NORTH DAKOTA
Bismarck
ALEXANDRIA
SOUTH DAKOTA
(OB-37) ROAD BED
SHERIDAN
WYOMING
Casper
Phillip
Mitchell
(OB-13) SILVER BAY
Big Mountain
Austin
Reno
ELKO
Eureka
Mina
(OB-10) LITTLE SATIN
San Francisco
Salt Lake City
UTAH
NEVADA
CALIFORNIA
Cheyenne
NEBRASKA
Kearney
Denver
COLORADO
Norton
(OB-3) CLEAR VIEW
ST. JOSEPH
Kansas City
Ness City
KANSAS
Kinsley
GARDEN CITY
Springfield
La Junta
St George
Las Vegas
(OB-15) SLEEPY EYE
Pittsburg
Clayton
(OB-18) ZERO HOUR
Woodward
Pampa
(OB-36) WATER TANK
Oklahoma City
OKLAHOMA
Santa Rosa
ALBUQUERQUE
CORONA
NEW MEXICO
Los Angeles
ARIZONA
Phoenix
San Diego
Tucson
El Paso
PACIFIC OCEAN
Dallas
TEXAS
Austin
San Antonio
Houston
Palacios
ROUTE LEGEND
CLIMB OUT TRACKS
ENTRY TRACKS
MANEUVER AREA OF BOMB RUNS
BOMB RUN CORRIDOR
RE-ENTRY TRACKS
POSITIONS SPECIFIED IN TEXT
500
VFR ALTITUDES (3000 CEIL - 5 MI VIS)
VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)
May 26.1966

OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.


Tlonaga
Haileyburg
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
MINNESOTA
HOUGHTON
Newberry
Petoskey
Minneapolis
WISCONSIN
MICHIGAN
IOWA
Milwaukee
Detroit
Chicago
Des Moines
INDIANA
ILLINOIS
Indianapolis
OHIO
Cleveland
Cincinnati
MISSOURI
St. Louis
Louisville
NEWCOMBE
(OB-11)
ORANGE TREE
KENTUCKY
Glasgow
Nashville
TENNESSEE
Memphis
(OB-2) BOTTLE TOP
ARKANSAS
TEXARKANA
MUSCLE SHOALS
(OB-5) COIL SPRING
Tuscaloosa
ALABAMA
Montgomery
MISSISSIPPI
Jackson
Shreveport
LOUISIANA
Hattiesburg
Mobile
LAKE CHARLES
New Orleans
(OB-12) SEA HORSE
GULF OF MEXICO
PRESQUE ISLE
(OB-38) STOCK FARM
MAINE
Rumford
VT
NH
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
Rutland
MASS
Boston
RI
CONN
NEW YORK
Buffalo
New York
PENNSYLVANIA
Pittsburgh
Philadelphia
NJ
MD
DEL
Washington
Charleston
W VA
Williamson
VIRGINIA
PULASKI
Winston Salem
NO CAROLINA
SO CAROLINA
Florence
(OB-17) WALNUT GROVE
Atlanta
Augusta
GEORGIA
Statesboro
Jacksonville
FLORIDA
Tampa
Miami
ATLANTIC OCEAN
INDEX LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes
IRON MAN
Target
*
Aircraft
Jet
Speed
Sub-Sonic
Routes Flown IFR/VFR,
Day/Night
May Be In Use 7 Days a week
(OB-8) FUNNY BOY
MAYAGUANA AFB

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

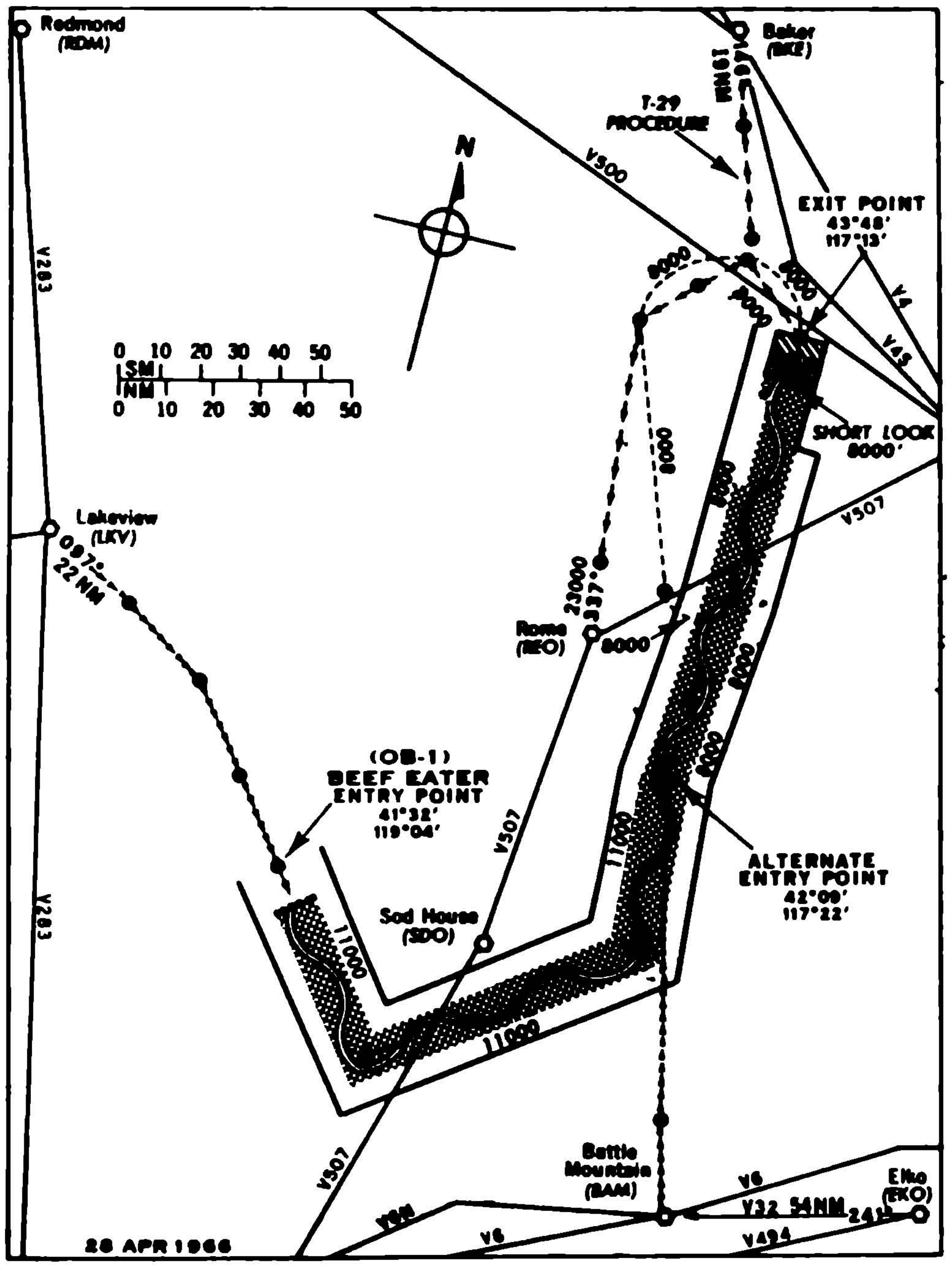
OIL BURNER ROUTES

NEVADA/OREGON

BEEF EATER OB-1

Revised Effective January 16, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°-20'N, 120°04'W); then descend direct to cross 42°07'N, 119°39'W at or below FL 230; then descend direct to cross 41°49'N, 119°21'W at or above 16,000' MSL; then descend direct to cross the entry point of the low level route at 41°32'N, 119°04'W at 11,000' MSL, then 11,000' MSL direct 40°55'N, 118°27'W, then 11,000' MSL direct 41°31'N, 117°20'W, then 11,000'. MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40'N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°-59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 230, then maintain FL 230 via the Rome 337° radial to the Rome, Oregon. VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°-31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°25'N, 118°57'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W; then descend direct to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T-29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

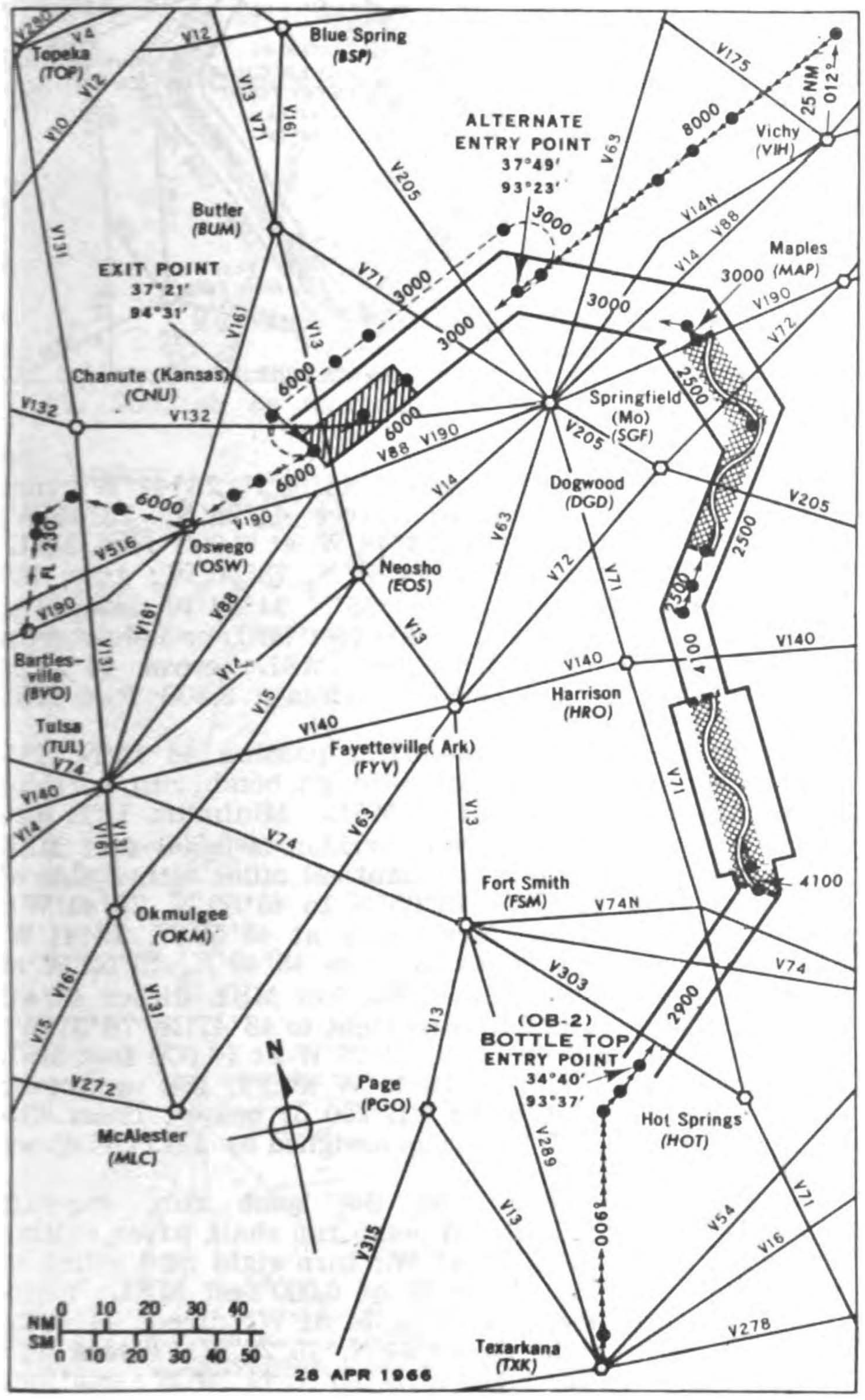
ARKANSAS/MISSOURI

BOTTLE TOP OB-2

Revised Effective April 24, 1966

Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.


Topeka
(TOP)
V280
V4
V12
V10
Blue Spring
(BSP)
V13 V71
V161
V131
V205
ALTERNATE
ENTRY POINT
37°49'
93°23'
V63
V175
8000
25 NM
012°
Vichy
(VIH)
Butler
(BUM)
EXIT POINT
37°21'
94°31'
3000
V14N
V88
V14
Maples
(MAP)
V190
V72
Chanute (Kansas)
(CNU)
V132
6000
Springfield
(Mo)
(SGF)
2500
Dogwood
(DGD)
FL 230
V516
Oswego
(OSW)
Neosho
(EOS)
Bartles-
ville
(BVO)
Tulsa
(TUL)
V74
V140
4100
Harrison
(HRO)
V15
Fayetteville(Ark)
(FYV)
Okmulgee
(OKM)
Fort Smith
(FSM)
V74N
V303
2900
(OB-2)
BOTTLE TOP
ENTRY POINT
34°40'
93°37'
N
V272
McAlester
(MLC)
Page
(PGO)
Hot Springs
(HOT)
V289
V54
V16
V315
1900
NM 0 10 20 30 40
SM 0 10 20 30 40 50
Texarkana
(TXK)
V278
28 APR 1966

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°31'W, maintain 6000' MSL, turn right to 37°32'N, 94°41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30''N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 92°34'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ARTCC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34''W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.

Route Width—The IFR route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°06'N, 92°23'W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W. The VFR route width from 35°21'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°06'N, 92°23'W is reduced to 2 NM on the east side of centerline.

Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB–3

Revised Effective March 27, 1966

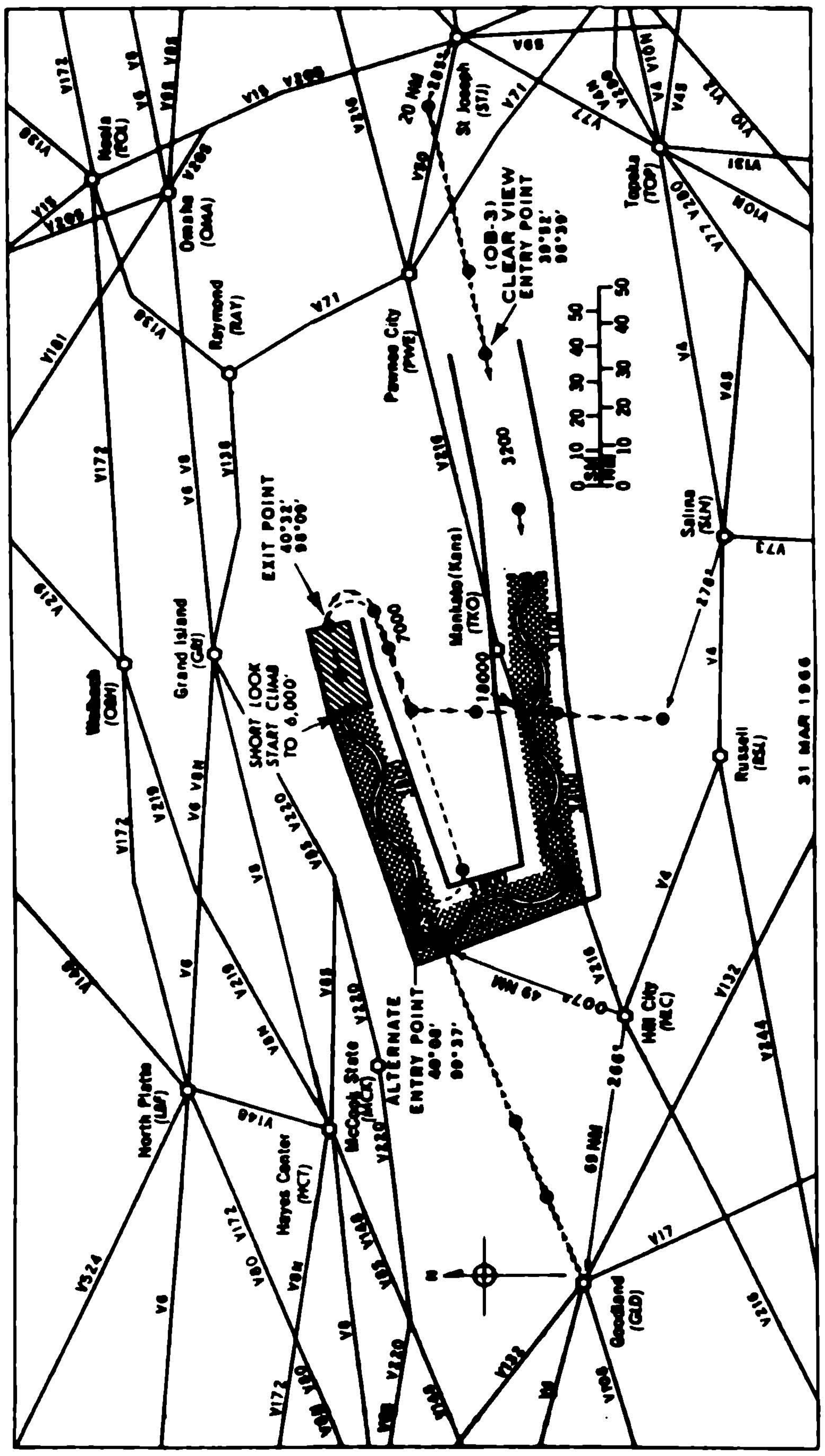
Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL direct 40°03'N, 99°50'W maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (4 NM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.



(OB-3) CLEAR VIEW ENTRY POINT 39°22' 99°30'
EXIT POINT 40°32' 98°06'
SHORT LOOK START CLIMB TO 6,000'
ALTERNATE ENTRY POINT 40°03' 99°27'
Omaha (OMA)
Grand Island (GRI)
Hill City (HLC)
Goodland (GLD)
Salina (SLN)
Topeka (TOP)
Russell (RSL)
McCook State (MCK)
North Platte (LBF)
Hayes Center (HCT)
Mankato (Kans) (TKO)
Pawnee City (PWE)
St Joseph (STJ)
Raymond (RAY)
Wolbach (OBH)
20 NM
69 NM
31 MAR 1966

Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

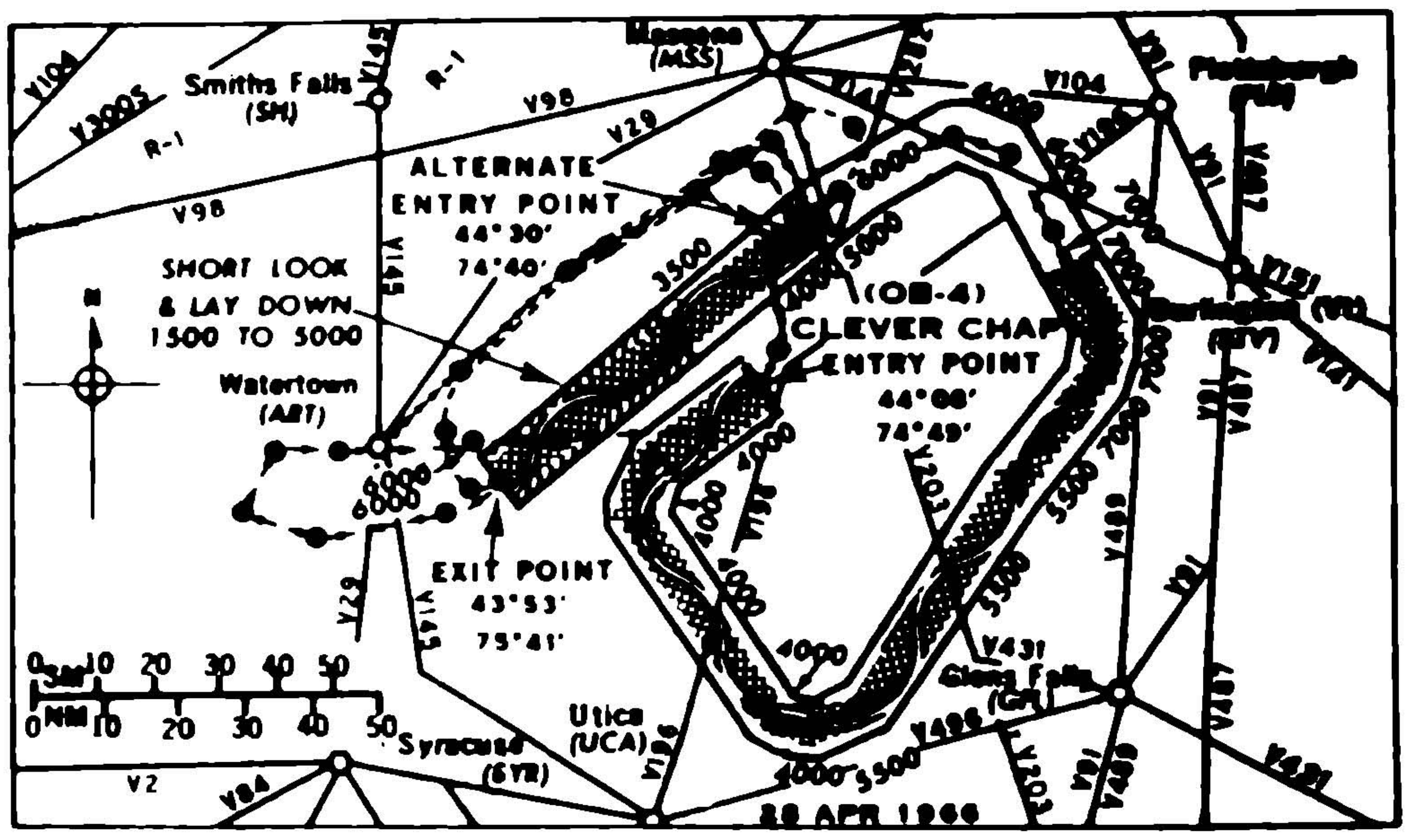
Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

CLEVER CHAP OB-4

Revised Effective February 27, 1966

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below; cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13'N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17'N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W: climb to cross 43°59'N, 73°51'W at 7,000 feet MSL:



Smiths Falls (SH)
Massena (MSS)
Plattsburgh (PLB)
Burlington (BTV)
ALTERNATE ENTRY POINT 44°30' 74°40'
SHORT LOOK & LAY DOWN 1500 TO 5000
Watertown (ART)
(OB-4) CLEVER CHAP ENTRY POINT 44°08' 74°49'
EXIT POINT 43°53' 75°41'
Syracuse (SYR)
Utica (UCA)
Glens Falls (GFL)
28 APR 1966

maintain 7,000 feet MSL direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL; cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.

Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43'N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41' W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at FL 180; cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48'N, 75°12'W to 44°16'N, 73°39'W 2 NM either side of center line.

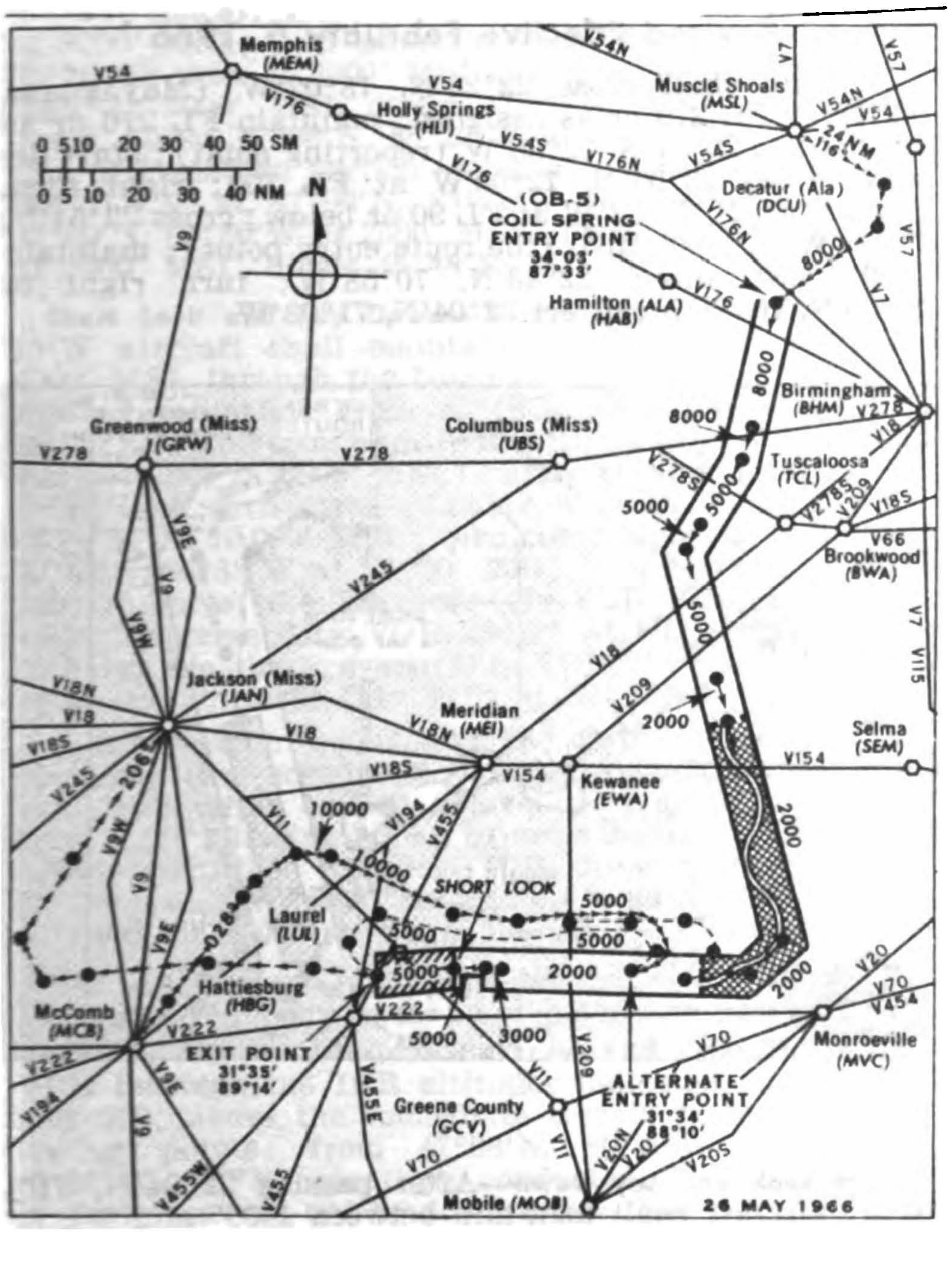
Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB–5

Revised Effective January 6, 1966

Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000' MSL; turn right, descend to cross 34°19'N, 87°06'W at 8000' MSL, maintain 8000' MSL direct to the route entry point at 34°03'N, 87°33'W, direct 33°35'N, 87°38'W, direct 33°28'N, 87°42'W; descend direct to cross 33°15'N, 87°52'W at 5000' MSL, maintain 5000' MSL direct 33°10'N, 87°56'W, direct 32°40'N, 87°48'W; descend to cross 32°31'N, 87°45'W at 2000' MSL, maintain 2000' MSL direct 31°41'N, 87°31'W, turn right to 31°33'N, 87°40'W, maintain 2000' MSL direct 31°36'N, 88°42'W; climb direct to cross 31°36'N, 88°46'W at 3000' MSL, direct to cross 31°36'N, 88°54'30"W at 5000' MSL. In addition to the above, aircraft may climb to 3000' MSL after 31°33'N, 87°40'W and maintain 3000' MSL to 31°36'N, 88°54'30" during the hours 0600Z–1200Z.



Memphis (MEM)
V54
V176
Holly Springs (HLI)
V54S
V176N
Muscle Shoals (MSL)
V54N
V7
V57
24 NM 116°
0 5 10 20 30 40 50 SM
0 5 10 20 30 40 NM
N
(OB-5) COIL SPRING ENTRY POINT 34°03' 87°33'
Decatur (Ala) (DCU)
8000
Hamilton (ALA) (HAB)
V9
Birmingham (BHM)
V278
Greenwood (Miss) (GRW)
Columbus (Miss) (UBS)
V278S
5000
Tuscaloosa (TCL)
V185
V66
Brookwood (BWA)
V245
V115
V18
V209
2000
Jackson (Miss) (JAN)
Meridian (MEI)
V18N
Selma (SEM)
V154
Kewanee (EWA)
10000
V194
V455
V11
SHORT LOOK
Laurel (LUL)
Hattiesburg (HBG)
McComb (MCB)
V222
EXIT POINT 31°35' 89°14'
3000
V70
Monroeville (MVC)
ALTERNATE ENTRY POINT 31°34' 88°10'
V20
V454
Greene County (GCV)
V455E
V455W
V205
Mobile (MOB)
26 MAY 1966

Short Look—After passing 31°36'N, 88°54'30"W aircraft shall operate through the bomb run corridor at 5000' MSL. In addition, aircraft may operate through the bomb run corridor at 3000' MSL during the hours 0600Z–1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36'N, 88°54'30"W to 31°35'N, 89°14' W.) After exiting the route at 31°35'N, 89°14'W, aircraft shall cross 31°36'N, 89°30'W at 5000' MSL; start climb direct to cross 31°37'N, 89°56'W at 14,000' MSL (reporting point), maintain 14,000' MSL direct 31°33'N, 90°25'W; start climb direct 31°32'N, 90°36'W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42'N, 90°44'W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55'N, 90°35'W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35'N, 89°14'W, turn right, cross 31°42'N, 89°22'W at 5000' MSL, maintain 5000' MSL, turn right to 31°49'N, 89°14'W, direct 31°48'N, 88°27'W; direct 31°48'N, 88°10'W; turn right, cross 31°40'N, 88°08'W at 3000' MSL; continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route. Aircraft may proceed at 5000' MSL from 31°48'N, 88°27'W; direct 31°48'N, 87°57'W; turn right descend to cross 31°41'N, 87°49'W at 3000' MSL; continue turn to cross 31°34'N, 87°57'W at 2000' MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 32°31'N, 87°45'W to 31°33'N, 87°52'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18'15"N, 90°15'29"W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000' MSL; cross 45 NM fix at 14,000' MSL; turn right, cross 32°01'N, 89°35'W at 10,000' MSL, maintain 10,000' MSL, turn right, 32°01'N, 89°27'W, direct 31°49'N, 88°55'W; descend direct, cross 31°48'N, 88°39'W at 6000' MSL; direct, cross 31°48'N, 88°27'W at 5000' MSL, maintain 5000' MSL direct 31°48'N, 88°10'W; turn right cross 31°40'N, 88°08'W at 3000' MSL continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36'N, 88°46'W to 31°36'N, 88°54'30"W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

FLINT ROCK OB-7

Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40'N, 106°14'W; then descend to cross 47°24'N, 107°00'W at or above 6000' MSL; then continue descent so as to cross the route entry point, 47°43'N, 106°35'W, at 4000' MSL; then at 4000' MSL direct 47°57'N, 104°30'W; then at 4000' MSL direct 47°35'N, 101°31'W; then descend to 3500' MSL direct 47°02'N, 101°02'W.

Short Look—After passing 47°02'N, 101°02'W aircraft shall climb so as to cross 46°56'N, 100°56'W at 6600' MSL; then at 6600' MSL direct to the exit point 46°52'N, 100°53'W (bomb run corridor 4 NM either side of centerline from 47°02'N, 101°02'W to the exit point 46°52'N, 100°53'W); then maintaining 6600' MSL turn right direct 46°39'N, 101°07'W; then start climb to FL 230 direct to 45°53'N, 101°35'W; direct to Dupree VORTAC, climbing so as to cross 46°30'N, 101°12'30''W at or above 8,000' MSL; crossing 46°19'N, 101°19'W at or above 11,000' MSL; crossing 46°13'N, 101°23'W at or below FL 190; crossing 45°53'N, 101°35'W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

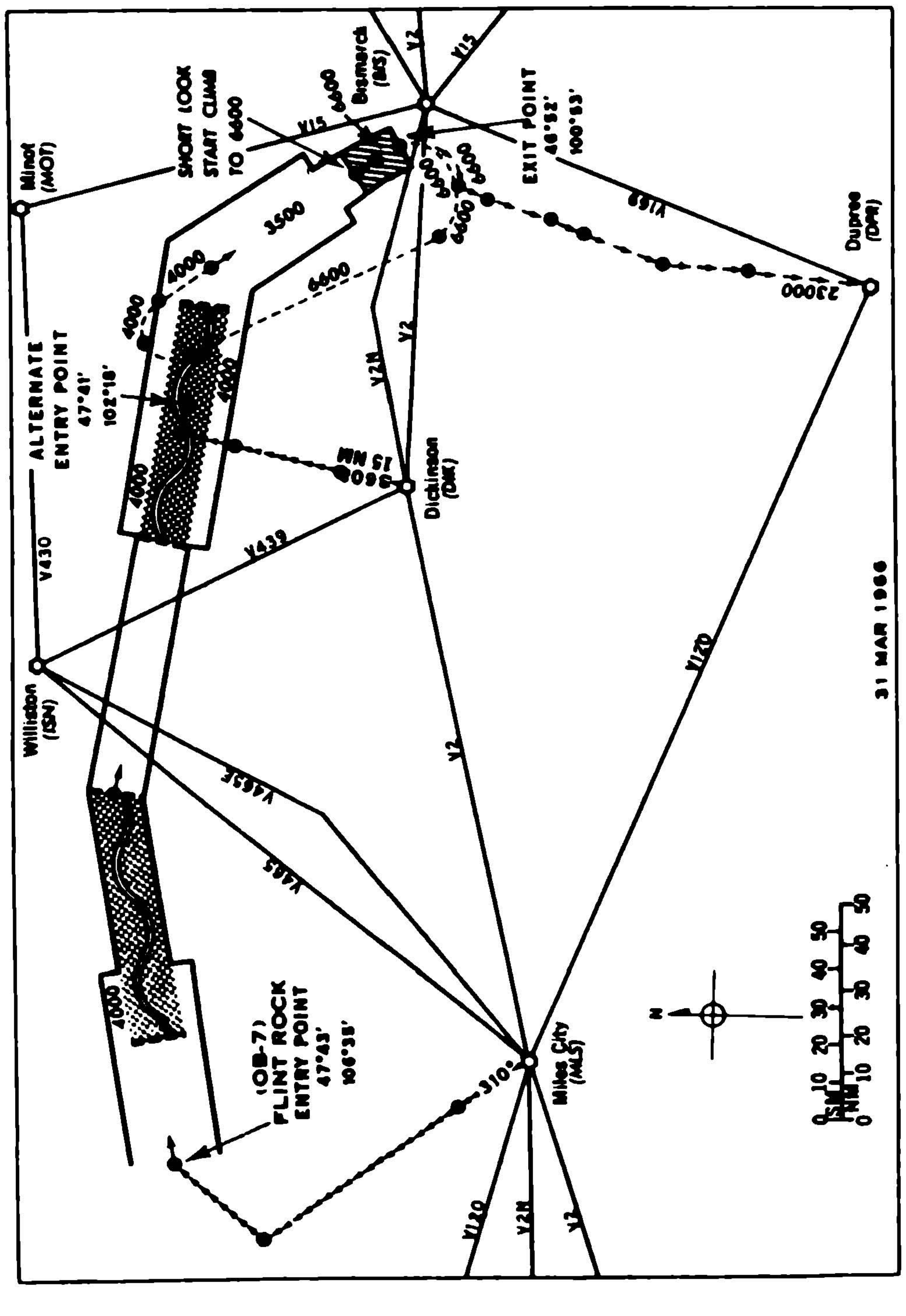
Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52'N, 100°53'W maintain 6600' MSL direct 46°39'N, 101°07'W; then at 6600' MSL make a right turn direct to 46°43'N, 101°24'W; then at 6600' MSL direct 47°40'N, 102°00'W the descending so as to cross 47°50'N, 101°56'W at 4000' MSL; then continue turn direct 47°47'N, 101°42'W; then direct at 4000' MSL to 47°35'N, 101°31'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 47°48'N, 105°53'W to 47°57'N, 104°30'W and from 47°47'N, 103°03'W to 47°37'N, 101°45'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000' MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000' MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31'N, 102°32'W at 8,000' MSL; then descend direct so as to cross 47°42'30''N, 102°27'W at 6,000' MSL; then a descending right turn so as to cross 47°41'N, 102°18'W at 4000' MSL, thence via the published route.

Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50'N, 105°30'W to 47°47'N, 103°03'W and from 47°07'N, 101°06'W to 46°52'N, 100°53'W.

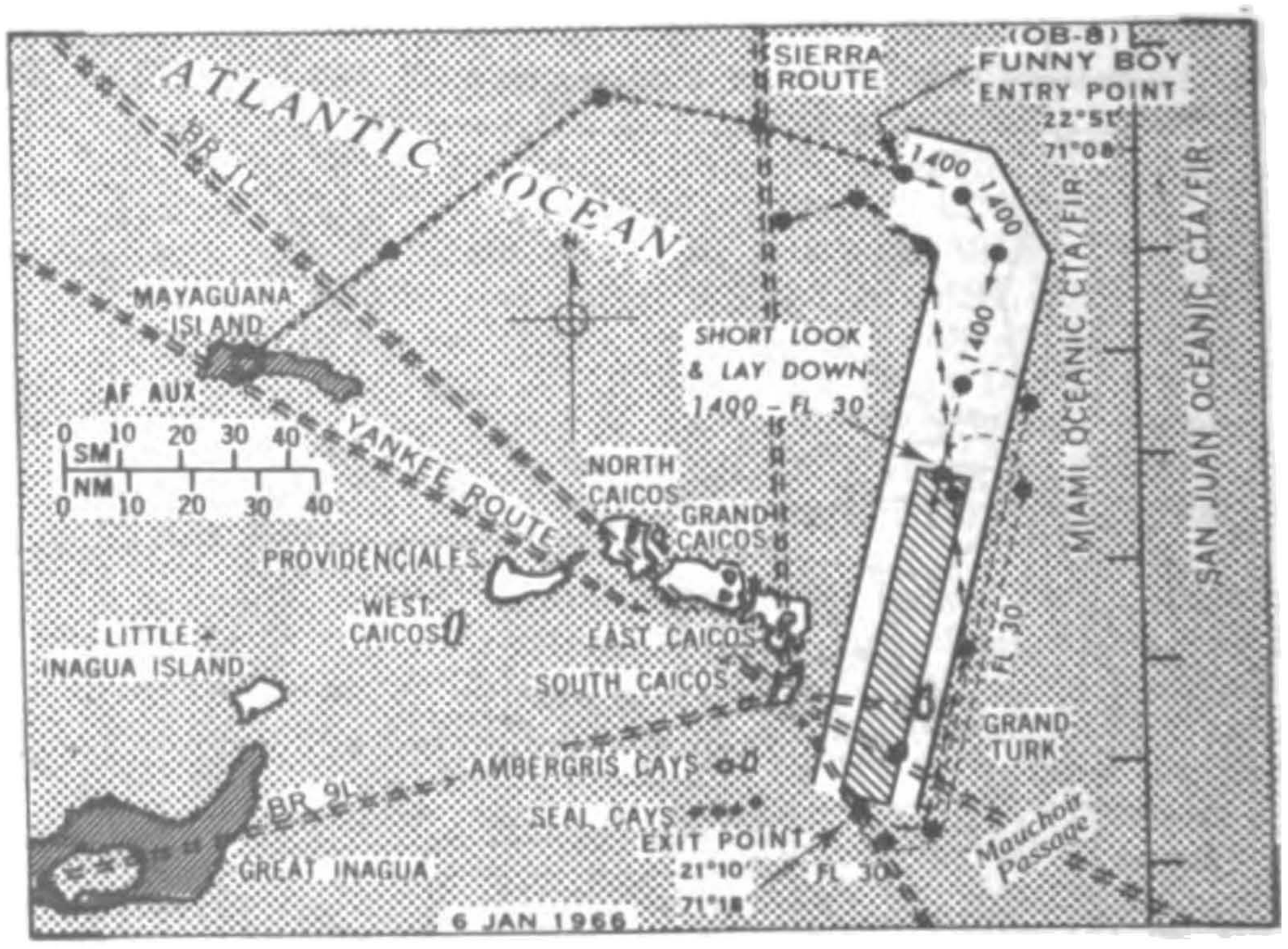
Hours of Operation—0000Z to 2400Z, 7 days weekly.


Minot (MOT)
SHORT LOOK START CLIMB TO 6600
Bismarck (BIS)
EXIT POINT 46°52' 100°53'
Dupree (DPR)
V15
V2
V169
V430
V439
V491
V120
V2N
3500
4000
6600
15 NM
ALTERNATE ENTRY POINT 47°41' 102°18'
Dickinson (DIK)
Williston (ISN)
(OB-7) FLINT ROCK ENTRY POINT 47°43' 106°35'
Miles City (MLS)
310°
31 MAR 1966
SM 0 10 20 30 40 50
NM 0 10 20 30 40
N

FUNNY BOY OB-8

Revised Effective February 6, 1966

Aircraft shall cross 22°23'N, 73°02'W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41'N, 72°35'W (reporting point); start descent, cross 23°05'N, 72°00'W at FL 150; right turn, cross 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 71°08'W at 1400' MSL (the route entry point); maintain 1400' MSL direct 22°48'N, 70°58'W; turn right to 22°39'N, 70°53'W; direct 22°04'N, 71°03'W.


ATLANTIC OCEAN
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°51' 71°08'
1400
MAYAGUANA ISLAND
AF AUX
BR 3L
SHORT LOOK & LAY DOWN 1400 - FL 30
0 10 20 30 40 SM
NM 0 10 20 30 40
YANKEE ROUTE
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
LITTLE INAGUA ISLAND
EAST CAICOS
SOUTH CAICOS
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR
FL 30
GRAND TURK
AMBERGRIS CAYS
BR 9L
SEAL CAYS
EXIT POINT 21°10' 71°18'
Mouchoir Passage
GREAT INAGUA
6 JAN 1966

Short Look and Lay Down—After passing 22°04'N, 71°03'W, aircraft shall maintain between 1400' and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04′N, 71°08′W to 21°10′N, 71°18′W). After exiting the route at 21°10′N, 71°18′W, aircraft shall turn left, cross 21°08′N, 71°14′W at FL 30; maintain FL 30 to 21°06′N, 71°08′W, direct 21°35′N, 71°00′W; start climb, cross 22°00′N, 71°02′W at FL 110 or above cross 22°40′N, 71°06′W at FL 250 or above; left turn to 22°48′N, 71°16′W; cross 22°45′N, 71°30′W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10′N, 71°18′W, turn left cross 21°08′N, 71°14′W at FL 30; maintain FL 30 to 21°06′N, 71°08′W; direct 22°01′N, 70°53′W; turn left descend to cross 22°04′N, 71°08′W at 1400′; thence via the published route. Aircraft may proceed at FL 30 from 21°06′N, 71°08′W; direct 22°14′N, 70°49′W; turn left descend to cross 22°17′N, 70°59′W at 1400′; thence via the published route.

Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB–9

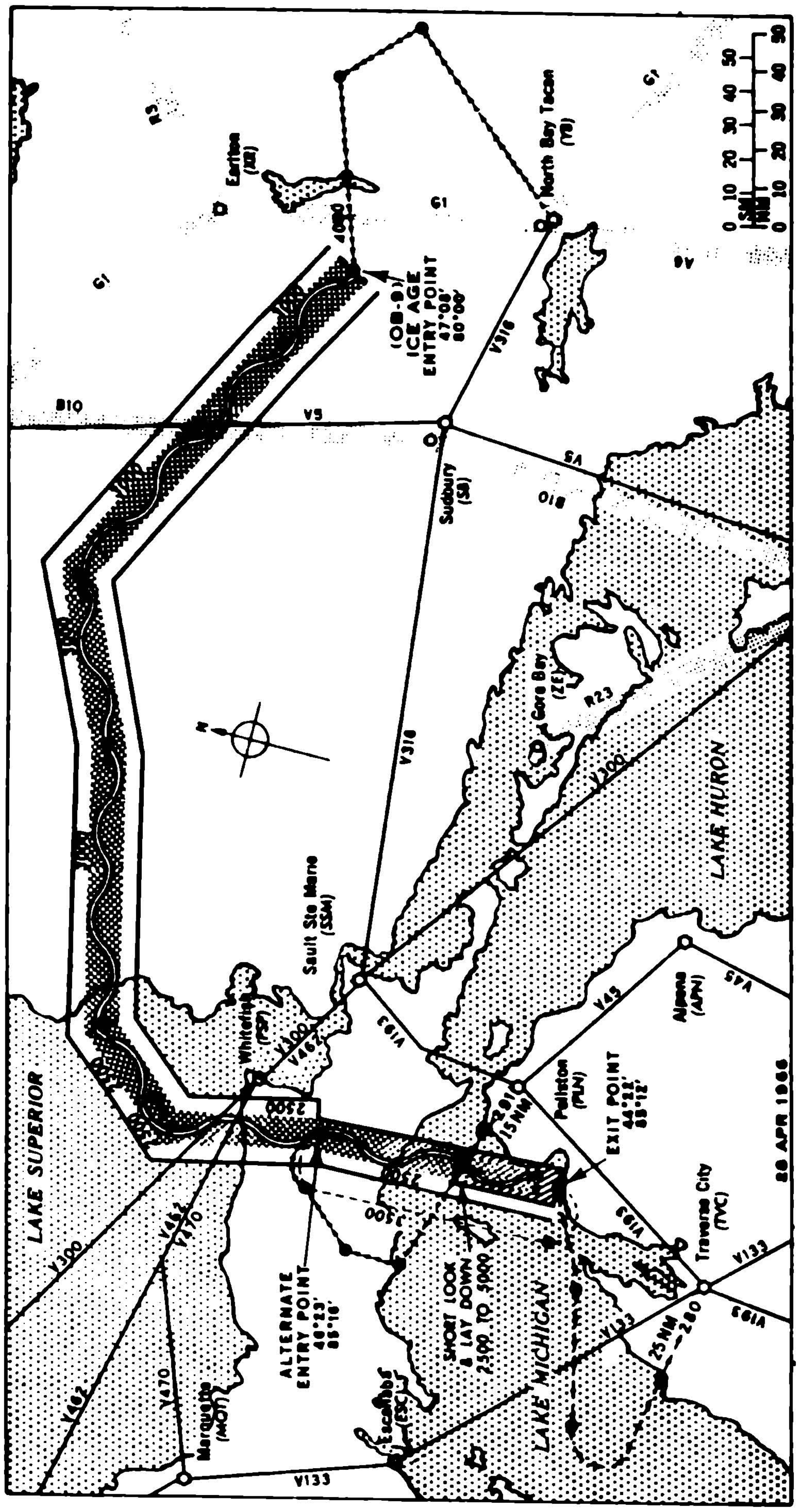
Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.

Short Look and Lay Down—After passing 45°48′N, 85°15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: from 47°08′N, 80°00′W to 45°27′N, 85°13′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.



Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

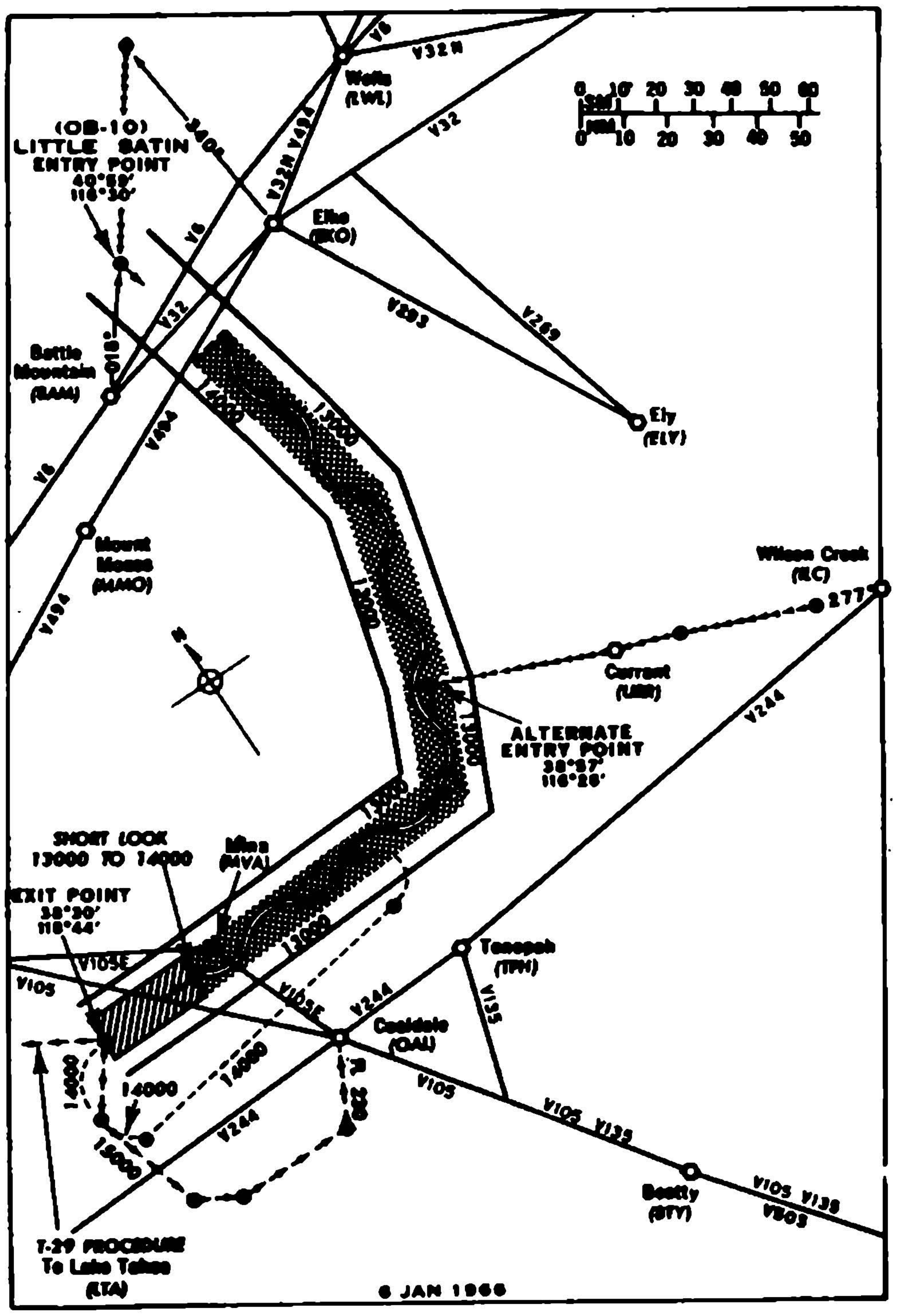
LITTLE SATIN OB–10

Revised Effective January 2, 1966

Aircraft shall cross 41°40'N, 115°49'W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59'N, 116°30'W (Battle Mountain VOR 018°/31) at 14,000' MSL, then 14,000' MSL direct 40°10'N, 116°17'W; then descend to 13,000' MSL direct 39°42'N, 116°10'W, then 13,000' MSL direct 38°57'N, 116°26'W, then 13,000' MSL direct 38°34'N, 116°40'W, then 13,000' MSL direct 38°31'N, 118°12'W.

Short Look—After passing 38°31'N, 118°12'W aircraft shall operate between a maximum altitude of 14,000' MSL and a minimum of 13,000' MSL thru the bomb run corridor (4 NM either side of centerline from 38°31'N, 118°12' W to 38°30' N, 118°44' W). After exiting the route at 38°30'N, 118°44'W aircraft shall start climb to cross 38°15'N, 118°57'W at 15,000' MSL; then maintain 15,000' MSL direct 37°48'N, 118°48'W; then climb so as to cross 37°42'N, 118°36'W at or above 17,000' MSL; then climb direct to cross 37°42'N, 118°00'W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30'N, 118°44'W, maintain 14,000' MSL direct 38°15'N, 118°57'W, then 14,000' direct 38°06'N, 118°50'W direct 38°19'N, 117°12'W; then descend direct to cross 38°33'N, 117°12'W at 13,000' MSL; thence via the published route.


V6
V32N
Wells (LWL)
V32
V32N V494
340°
(OB-10) LITTLE SATIN ENTRY POINT 40°59' 116°30'
0 10 20 30 40 50 60 SM
0 10 20 30 40 50 NM
Elko (EKO)
V6
V32
V293
V269
Battle Mountain (BAM)
018°
14000
13000
Ely (ELY)
V494
V6
Mount Moses (MMO)
V494
N
Wilson Creek (ILC)
277°
Currant (URR)
ALTERNATE ENTRY POINT 38°57' 116°26'
V244
13000
SHORT LOOK 13000 TO 14000
Mina (MVA)
EXIT POINT 38°30' 118°44'
V105E
V105
Tonopah (TPH)
V135
V105E
V244
Coaldale (OAL)
14000
14000
14000
15000
V244
V105
V105 V135
Beatty (BTY)
V105 V135 V803
T-29 PROCEDURE To Lake Tahoe (LTA)
6 JAN 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 40°30'N, 116°22'W to 38°31'N, 118°12'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21'N, 114°41'W); then descend direct to cross 38°34'N, 115°18'W at or below 15,000' MSL; then descend direct via the Currant, Nev. VOR to cross 38°57'N, 116°26'W at 13,000' MSL, thence via the published route.

T–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15'N, 114°23'W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30'N, 118°44'W exit point of the bomb run corridor: then climb to 14,000' MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11' N, 120°16'W).

Hours of Operation—24 hours daily, 7 days a week.

KENTUCKY/TENNESSEE

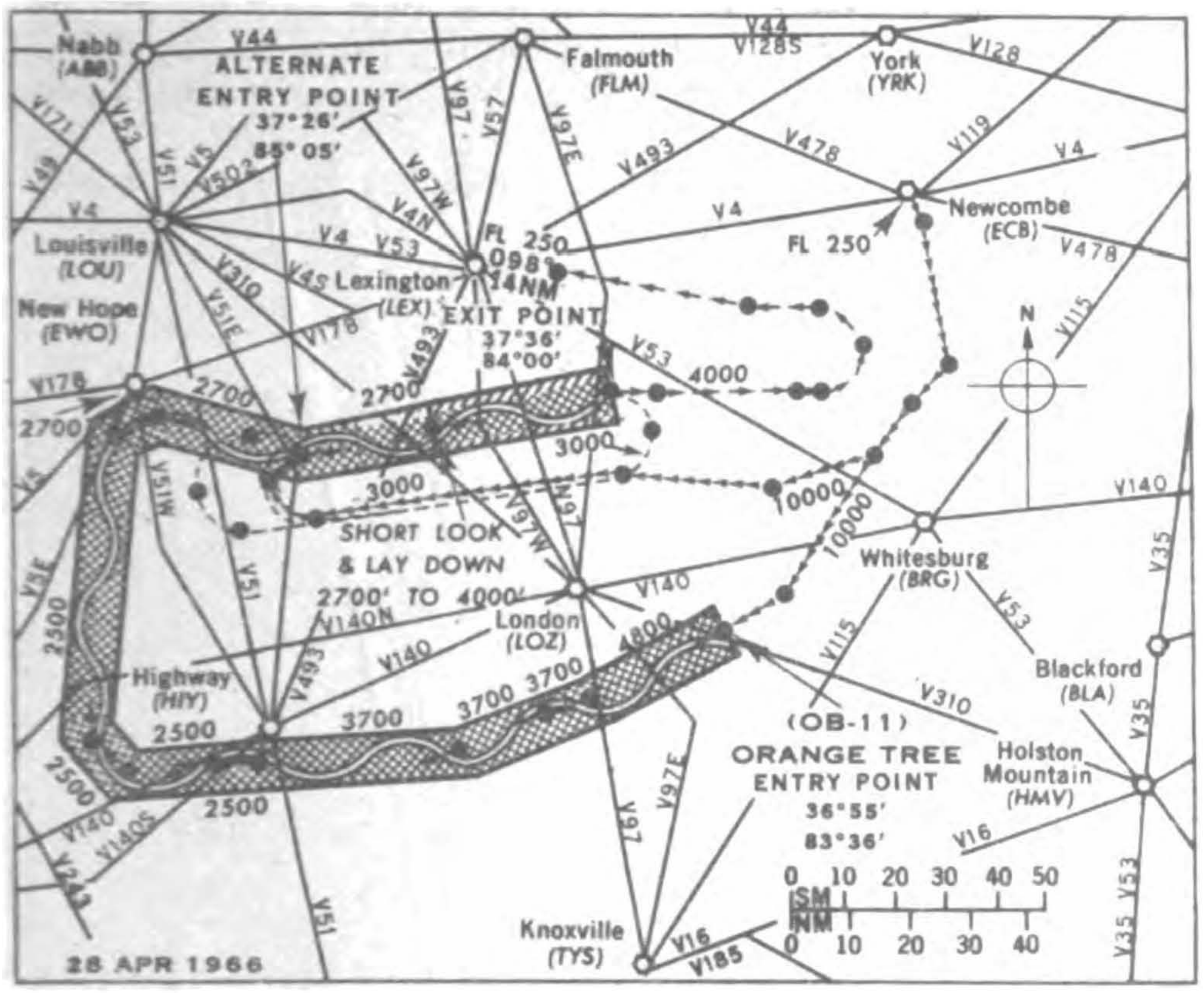
ORANGE TREE OB–11

Revised Effective February 27, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05'N, 82°53'W; then start descending to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01'N, 83°24'W; then start descent so as to cross route entry at 36°55'N, 83°36'W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45' N, 84°01'W; then descend so as to cross 36°41'N, 84°14' W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°–35'N, 84°32'W; direct 36°32'N, 85°15'W; descend so as to cross 36°32'N. 85°21'W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31'N, 85°40'W; then turn right to 36°36'N, 85°49'W; direct 37°28'N, 85°44'W; then turn right climb to cross 37°32'N, 85°35'W at 2,700 feet MSL; then at 2,700 feet MSL direct 37°26'N, 85°05'W; direct 37°30'N, 84°38'W.

Short Look and Lay Down—After passing 37°30'N, 84°38' W aircraft shall maintain between 2,700 feet and 4,000 feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30'N, 84°38'W to 37°36'N, 84°00'W). After exiting the route at 37°36'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36'N, 83°20'W; then start climb direct 37°36'N, 83°15'W; cross 37°44'N, 83°–05'W at or below 9,000 feet MSL; continue climb direct 37°50'N, 83°15'W; then climbing direct so as to cross 37°51'N, 83°30'W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3,000 feet MSL continue right turn to


Nabb (ABB)
V44
ALTERNATE ENTRY POINT 37°26' 85°05'
Falmouth (FLM)
York (YRK)
V128
V493
V478
V119
V4
Newcombe (ECB)
FL 250
Louisville (LOU)
New Hope (EWO)
Lexington (LEX)
FL 250 098° 14NM
EXIT POINT 37°36' 84°00'
4000
2700
3000
SHORT LOOK & LAY DOWN 2700' TO 4000'
10000
Whitesburg (BRG)
London (LOZ)
4800
Blackford (BLA)
Highway (HHY)
2500
3700
(OB-11) ORANGE TREE ENTRY POINT 36°55' 83°36'
Holston Mountain (HMV)
Knoxville (TYS)
0 10 20 30 40 50
SM
NM
0 10 20 30 40
28 APR 1966

37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28'N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2,700 feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°15'N, 85°08'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2,700 feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53'W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3,00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2,700 feet MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

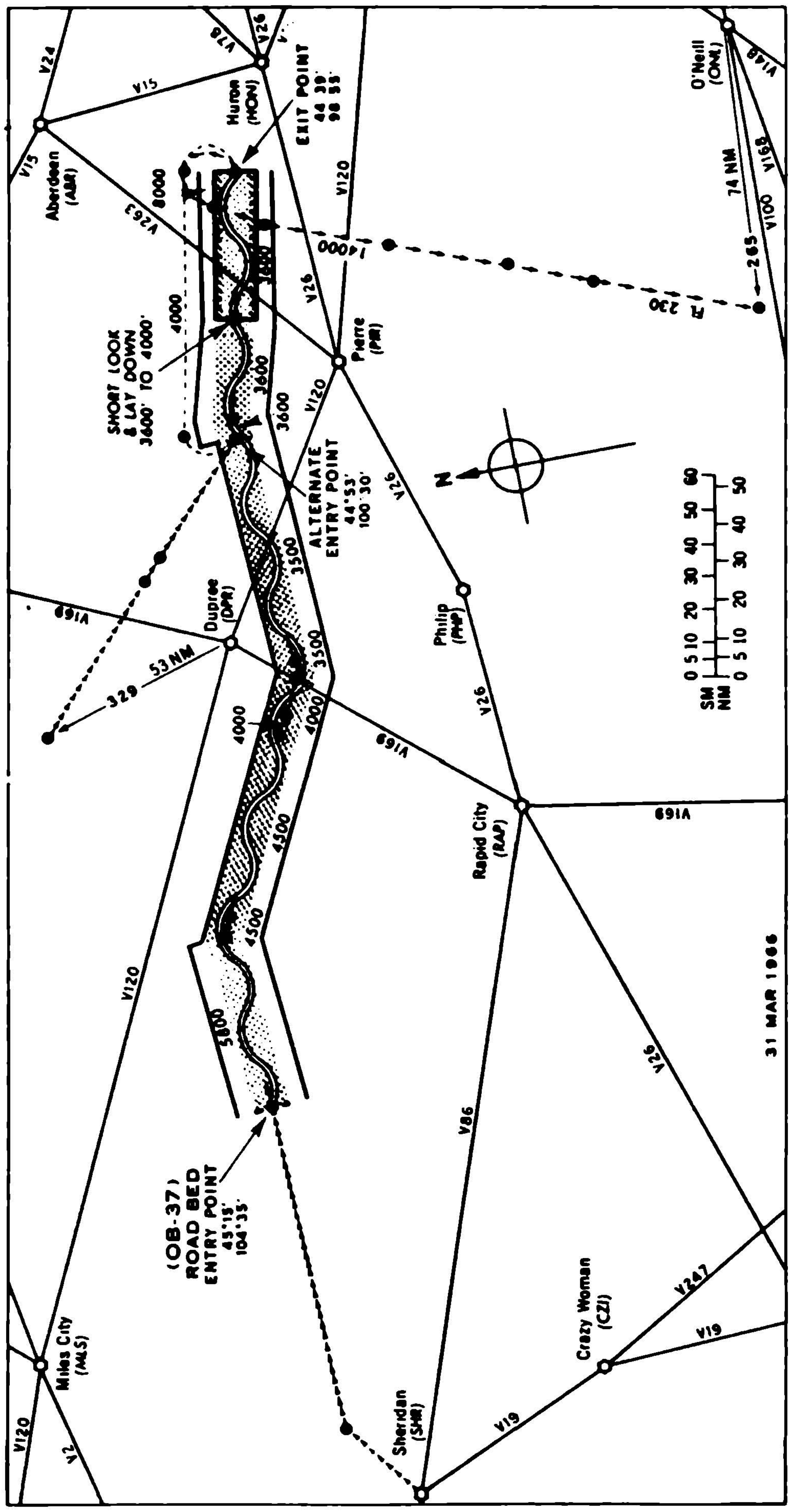
Hours of Operation—24 hours daily, 7 days per week.

MONTANA/SOUTH DAKOTA

ROAD BED OB–37

Effective April 4, 1966 through September 24, 1966

Aircraft shall cross the Sheridan, Wyoming VORTAC at FL 230 or as assigned by ARTCC; maintain FL 230 or assigned altitude direct to 45°08'N, 106°36'W; then start descent so as to cross the route entry point at 45°15'N, 104°35'W at 5800' MSL; then at 5800' MSL direct to 45°20'N, 103°30'W; then descend so as to cross 45°18'N, 103°23'W at 4500' MSL; then at 4500' MSL direct 44°57'N, 102°20'W; then descend direct so as to cross 44°55'N, 102°14'W at 4000' MSL; then at 4000' MSL direct to 44°50'N, 102°00'W; then descend direct so as to cross 44°50'N, 101°55'W at 3500' MSL; then at 3500' MSL direct to 44°53'N, 100°30'W; then climb so as to cross 44°53'N, 100°23'W at 3600' MSL; then at 3600' MSL direct to the entry point of the bomb run corridor at 44°47'N, 99°49'W.


Aberdeen (ABR)
Huron (HON)
EXIT POINT 44 39' 98 55'
O'Neill (ONL)
74 NM
265
FL 230
8000
4000
SHORT LOOK & LAY DOWN 3600' TO 4000'
Pierre (PIR)
ALTERNATE ENTRY POINT 44°53' 100°30'
3600
3500
Philip (PHP)
Dupree (DPR)
329
53NM
4000
4500
Rapid City (RAP)
5800
(OB-37) ROAD BED ENTRY POINT 45°15' 104°35'
Miles City (MLS)
Sheridan (SHR)
Crazy Woman (CZI)
0 5 10 20 30 40 50
SM
NM
31 MAR 1966

Short Look and Lay Down—After passing 44°47'N, 99°49'W, aircraft shall maintain between 3600' MSL and 4000' MSL through thhe bomb run corridor (4 NM either side of centerline from 44°47'N, 99°49'W to 44°39'N, 98°55'W). After exiting the route at 44°39'N, 98°55'W, aircraft shall turn left climbing so as to cross 44°52'N, 98°51'W at 8000' MSL; then at 8000' MSL continue left turn direct 44°47'N, 99°06'W; then start climb direct so as to cross 44°35'N, 99°17'W at 14,000' MSL; then at 14,000' MSL direct 44°05'N, 99°33'W; then start climb direct O'Neil, Nebraska VORTAC 265/74 (42°35'N, 100°21'W) crossing 43°36'N, 99°49'W at or above FL 200; crossing 43°16'N, 100°00'W at FL 230; then maintain FL 230 to O'Neil 265/74.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 44°39'N, 98°55'W turn left and climb to or maintain 4000' MSL to 44°52'N, 98°51'W; then at 4000' MSL direct to 45°06'N, 100°26'W; then turn left and descend to 3500' MSL direct to 44°53'N, 100°30'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°15'N, 104°35'W to 44°39'N, 98°55'W.

Alternate Entry—Aircraft shall cross the Dupree, South Dakota VORTAC 329/53 (45°55'N, 102°06'W) at FL 200 or below as assigned by ARTCC; then descend direct so as to cross 45°23'N, 101°16'W at 16,000' MSL; then descend direct so as to cross 45°18'N, 101°08'W at or above 14,000' MSL; then descend direct so as to cross 44°53'N, 100°30'W at 3500' MSL; thence via the published route.

Route Width—The route width is reduced to 4 NM on the north side of centerline from 45°20'N, 103°30'W to 44°53'N, 100°30'W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

SEA HORSE OB–12

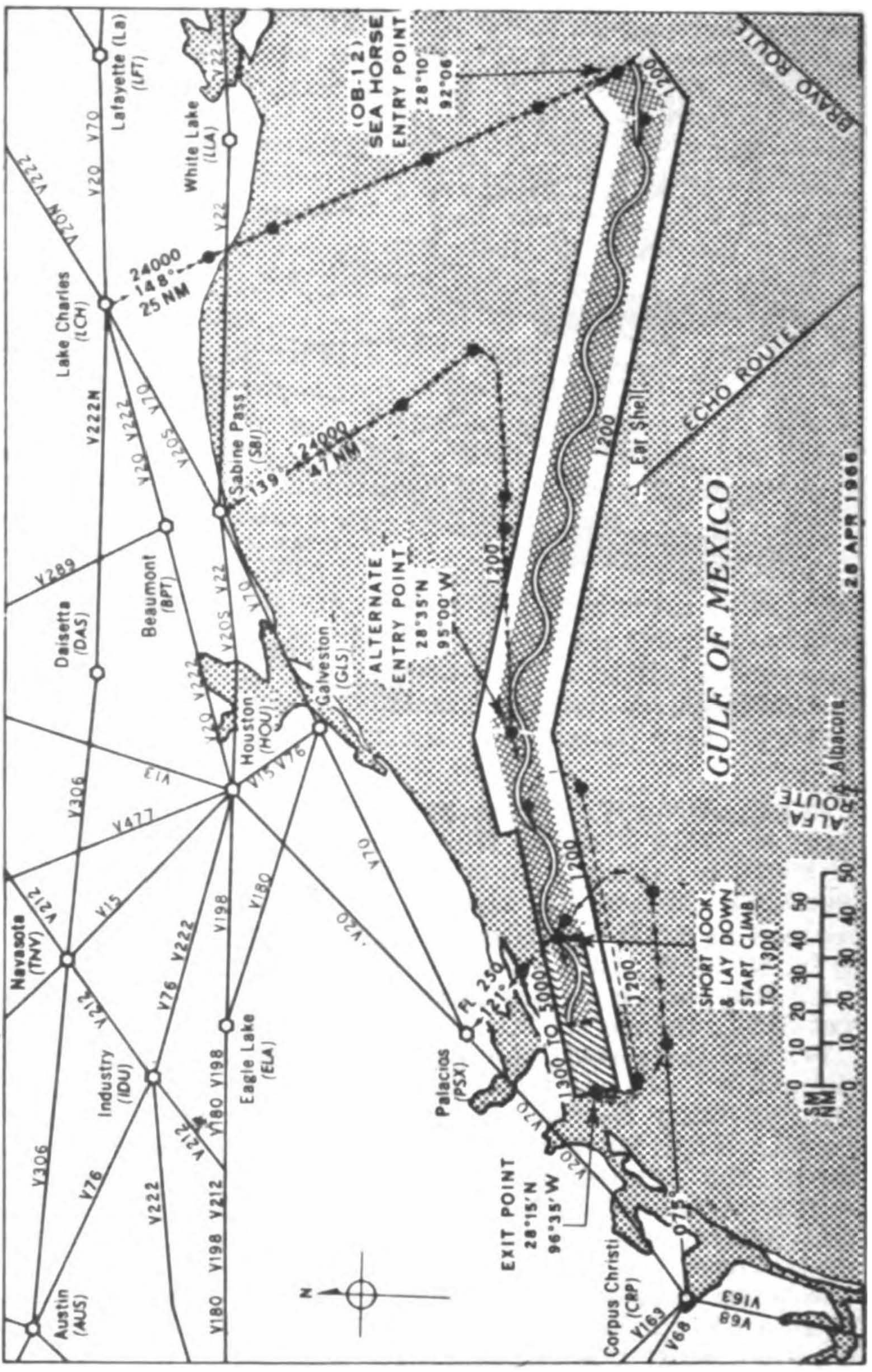
Revised Effective February 27, 1966

Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix; start descent, cross 29°31'N, 92°47'W at FL 190, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 9000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1200' MSL (low level entry point). Maintain 1200' MSL, turn right to 28°03'N, 92°16'W, direct 28°35'N, 95°00'W. direct 28°24'N, 95°53'W.

Short Look and Lay Down—After passing 28°24'N, 95°53' W climb to 1300' MSL and maintain between 1300' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 28°24'N, 95°53'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35' W, the route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°08'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°35'W turn left so as to cross 28°05'N, 96°32'W at 2,000' MSL; maintain 2000' MSL direct 28°18'N, 95°15'W, turn left descending so as to intercept the route at 28°31'N, 95°19' W at 1200' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the surface between the following points: From 28°10'N, 92°06'W to 28°19'N, 96°16'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the surface.


(OB-12) SEA HORSE ENTRY POINT 28°10' 92°06'
24000 148°- 25 NM
24000 139°- 47 NM
ALTERNATE ENTRY POINT 28°35'N 95°00'W
EXIT POINT 28°15'N 96°35'W
SHORT LOOK & LAY DOWN START CLIMB TO 1300
1200
1300 TO 5000
GULF OF MEXICO
BRAVO ROUTE
ECHO ROUTE
ALFA ROUTE
Lat Shell
28 APR 1966
Lake Charles (LCH)
Lafayette (La) (LFT)
White Lake (LLA)
Sabine Pass (SBI)
Beaumont (BPT)
Daisetta (DAS)
Galveston (GLS)
Houston (HOU)
Navasota (TNV)
Industry (IDU)
Eagle Lake (ELA)
Palacios (PSX)
Corpus Christi (CRP)
Austin (AUS)
V20
V70
V222
V222N
V20S
V289
V306
V477
V15
V76
V198
V180
V212
V68
V163
SM
NM
0 10 20 30 40 50

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°37'N, 94°06'W at 1200' MSL, direct 28°35'N, 95°00'W, thence via the published route.

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30'N, 95°24'W to 28°15'N, 96°35'W.

Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

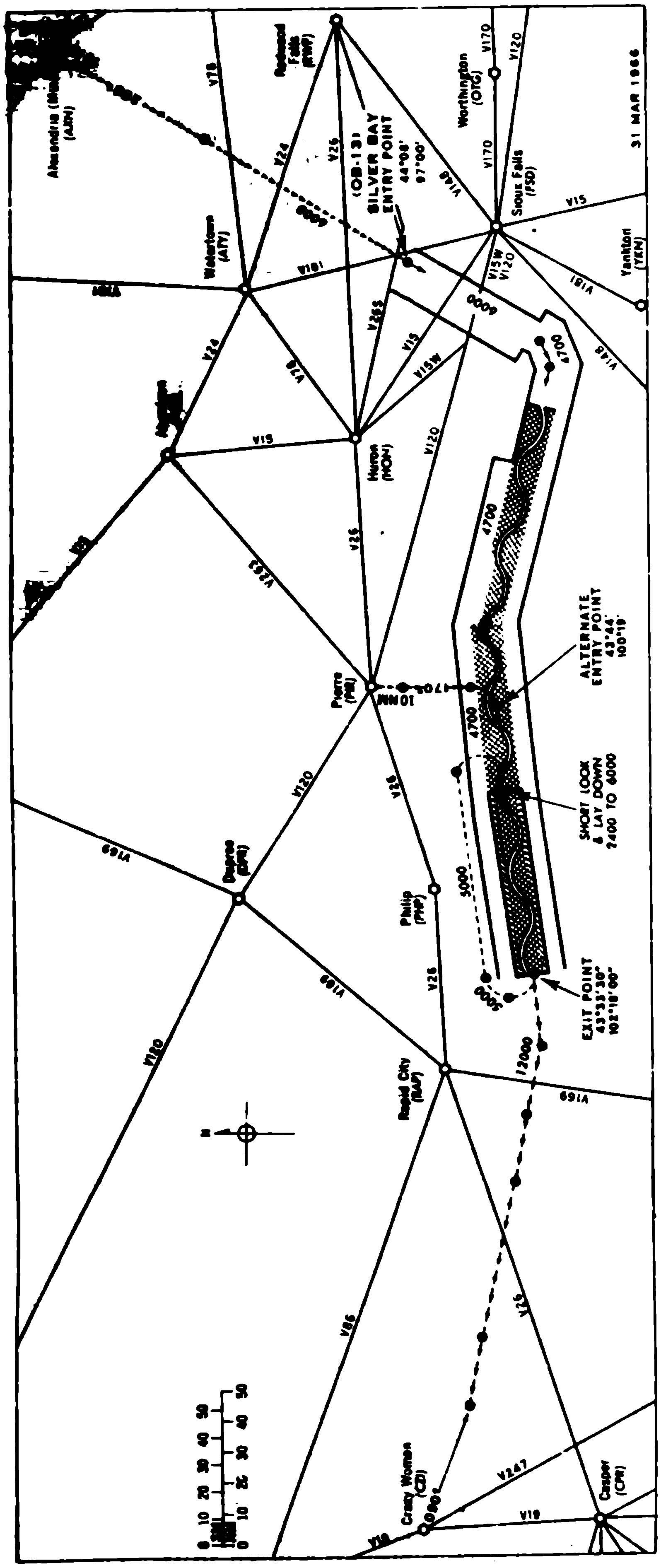
SILVER BAY OB–13

Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10'N, 96°00'W at 6000' MSL; then at 6000' MSL direct 44°08'N, 97°00'W (low level entry

point); then at 6000'MSL direct 43°27'N, 97°37'W; then turn right descending so as to cross 43°24'N, 97°48'W at 4700' MSL; then at 4700' MSL direct 43°47'N, 99°45'W; then at 4700' MSL direct to 43°42'N, 100°56'W.

Short Look and Lay Down—After passing 43°42'N, 100°56'W, aircraft shall maintain between 2400' MSL and 6000' MSL through the bomb run corridor (4 NM either side of centerline from 43°42'N, 100°56'W to 43°33'30"N, 102°18'W). The minimum IFR altitude through the corridor is 4700' MSL. After exiting the route at 43°33'30"N, 102°18'W aircraft shall climb so as to cross 43°30'N, 102°50'W at 12,000' MSL; then at 12,000' MSL direct to 43°34'N, 103°20'W then climb direct so as to cross 43°37'30"N, 103°50'W at FL 180 then climb direct so as to cross 43°46'N, 105°00'W at or below FL 230 then climb direct so as to cross 43°49'N, 105°30'W (CZI 090/42 DME fix) at FL 240.



(OB-13) SILVER BAY ENTRY POINT 44°08' 97°00'
ALTERNATE ENTRY POINT 43°44' 100°19'
SHORT LOOK & LAY DOWN 2400 TO 6000
EXIT POINT 43°33'30" 102°18'00"
31 MAR 1966
Alexandria (AXN)
Redwood Falls (RWF)
Worthington (OTG)
Sioux Falls (FSD)
Yankton (YKN)
Watertown (ATY)
Huron (HON)
Pierre (PIR)
Dupree (DPR)
Philip (PHP)
Rapid City (RAP)
Crazy Woman (CZI)
Casper (CPR)
V170
V120
V15
V15W
V181
V24
V26
V78
V148
V228
V169
V86
V247
V19
6000
4700
5000
12000

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33'30"N, 102°18'W turn right and climb or descend so as to cross 43°40'N, 102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°56'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30"N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30"N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08'N, 97°00'W to 43°29'N, 97°35'W and 4 NM north of centerline between 43°29'N, 97°35'W to 43°32'N, 98°30'W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41'N, 99°13'W to 43°47'N, 99°45'W.

Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND OB–14

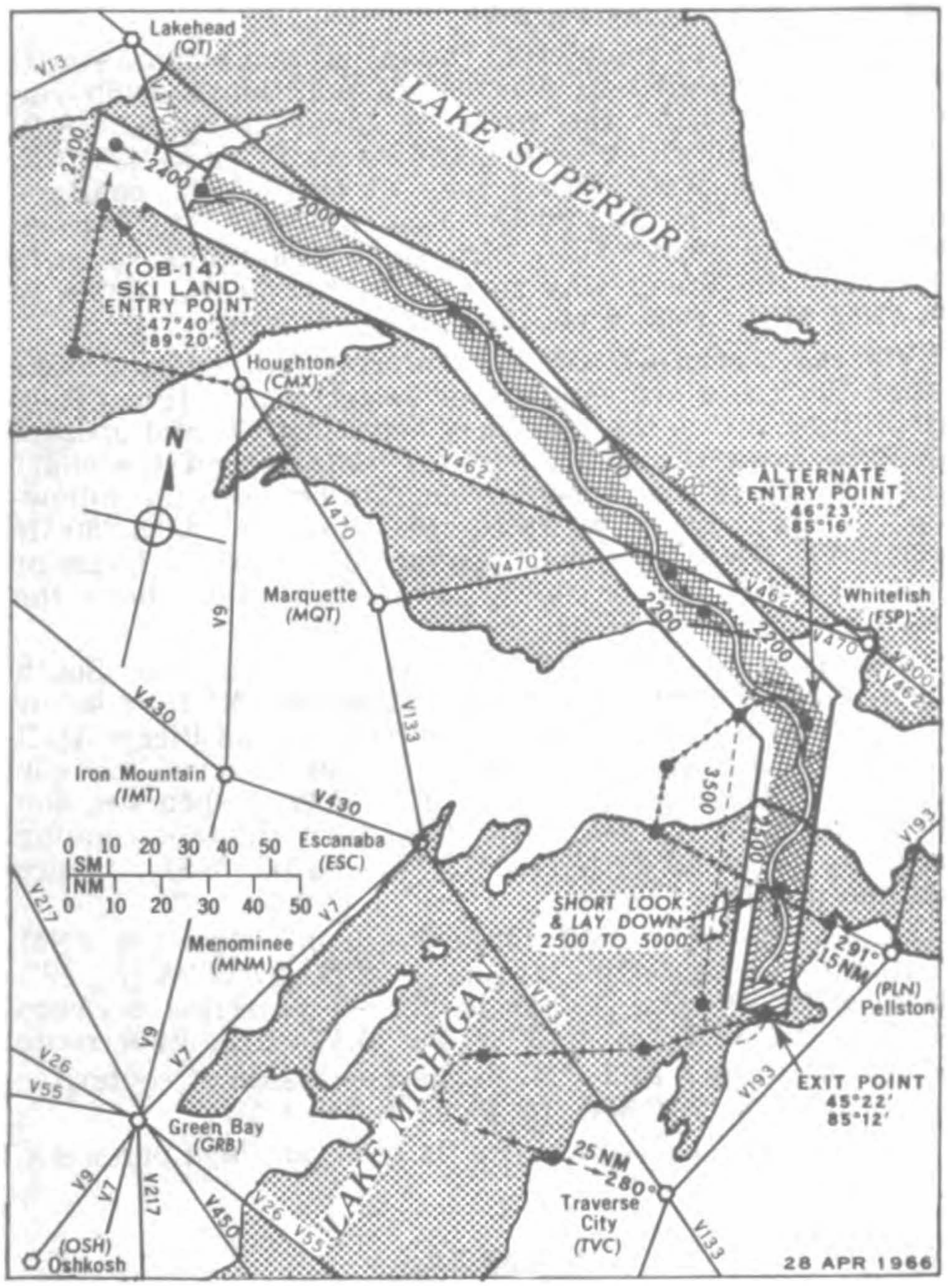
Revised Effective June 24, 1965

Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52"N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°48'N, 85°15'W.

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross

Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ski Land" route.


Lakehead (QT)
V13
2400
LAKE SUPERIOR
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
N
V463
V470
ALTERNATE ENTRY POINT 46°23' 85°16'
Marquette (MQT)
Whitefish (FSP)
V9
V430
V133
Iron Mountain (IMT)
3500
0 10 20 30 40 50 SM NM 0 10 20 30 40 50
Escanaba (ESC)
SHORT LOOK & LAY DOWN 2500 TO 5000
291° 15NM
(PLN) Pellston
Menominee (MNM)
LAKE MICHIGAN
EXIT POINT 45°22' 85°12'
Green Bay (GRB)
25NM 280°
Traverse City (TVC)
(OSH) Oshkosh
28 APR 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

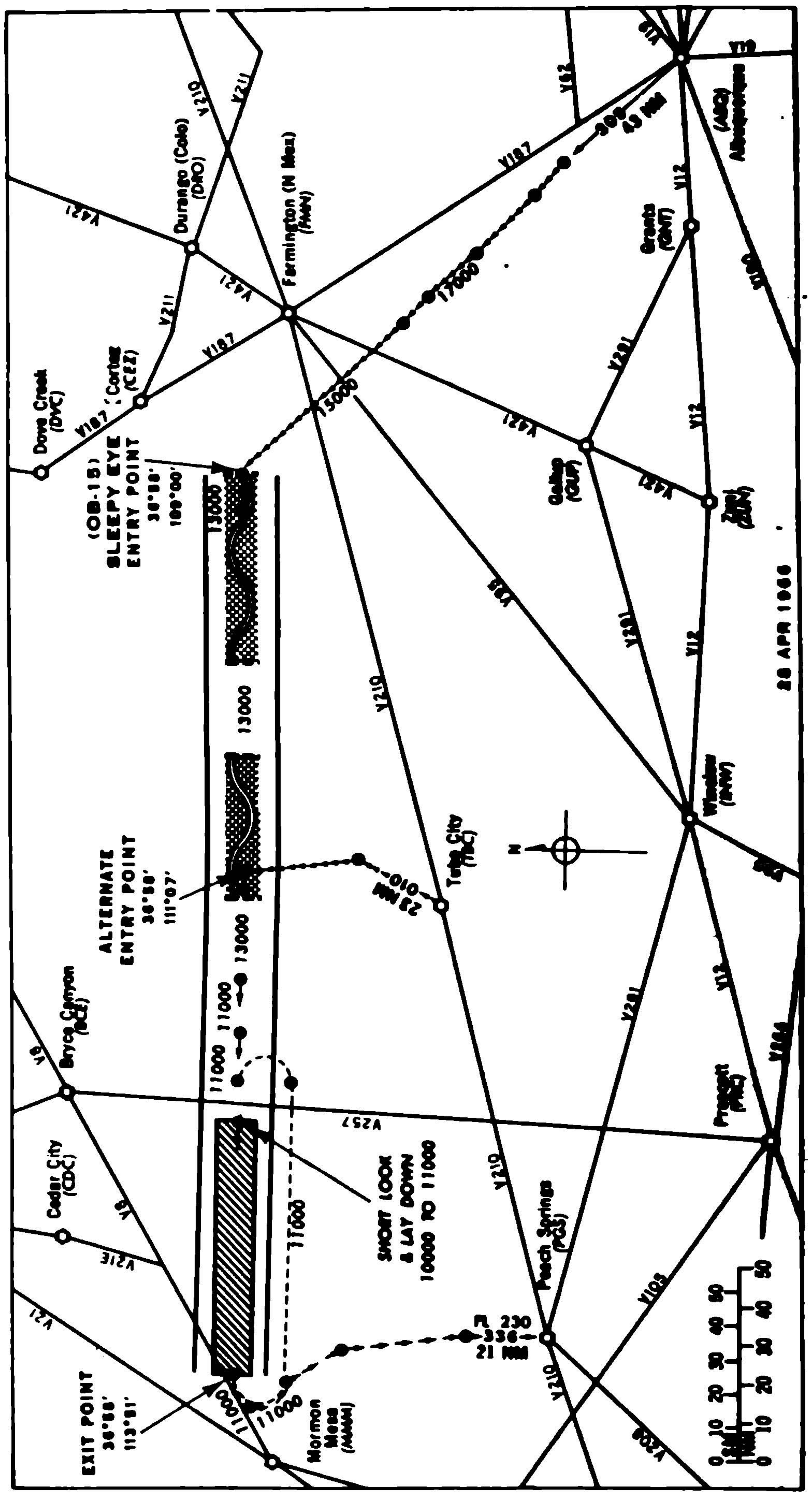
Hours of Operation—0000Z to 2400Z, 7 days a week.

ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE OB-15

Revised Effective January 2, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°57'N, 107°51'W at 17,000' MSL; then maintain 17,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.


Durango (Colo) (DRO)
Farmington (N Mex) (FMN)
Grants (GNT)
Albuquerque (ABQ)
305° 43 NM
17000
15000
13000
11000
Dove Creek (DVC)
Cortez (CEZ)
(OB-15) SLEEPY EYE ENTRY POINT 36°58' 109°00'
Gallup (GUP)
Zuni (ZUN)
28 APR 1966
ALTERNATE ENTRY POINT 36°58' 111°07'
010° 23 NM
Tuba City (TBC)
N
Winslow (INW)
Bryce Canyon (BCE)
Cedar City (CDC)
SHORT LOOK & LAY DOWN 10000 TO 11000
Prescott (PRC)
Peach Springs (PGS)
FL 230 336° 21 NM
EXIT POINT
Mormon Mesa (MMM)
V210
V211
V187
V12
V291
V421
V257
V8
V105

Short Look and Lay Down—After passing 36°58'N, 112°29'W aircraft shall operate between 10,000' and 11,000'

MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30''N, 113°32'W).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left direct to cross 36°58'N, 112°16'W at or below 11,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°58N, 111°16'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07'30''N, 111°16'W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28'N, 111°04'W); then descend direct to cross 36°58'N, 111°07'W at 13,000' MSL; thence via published route.

Hours of Operation—24 hours daily, 7 days a week.

MAINE/NEW HAMPSHIRE/NEW YORK/VERMONT

STOCK FARM OB–38

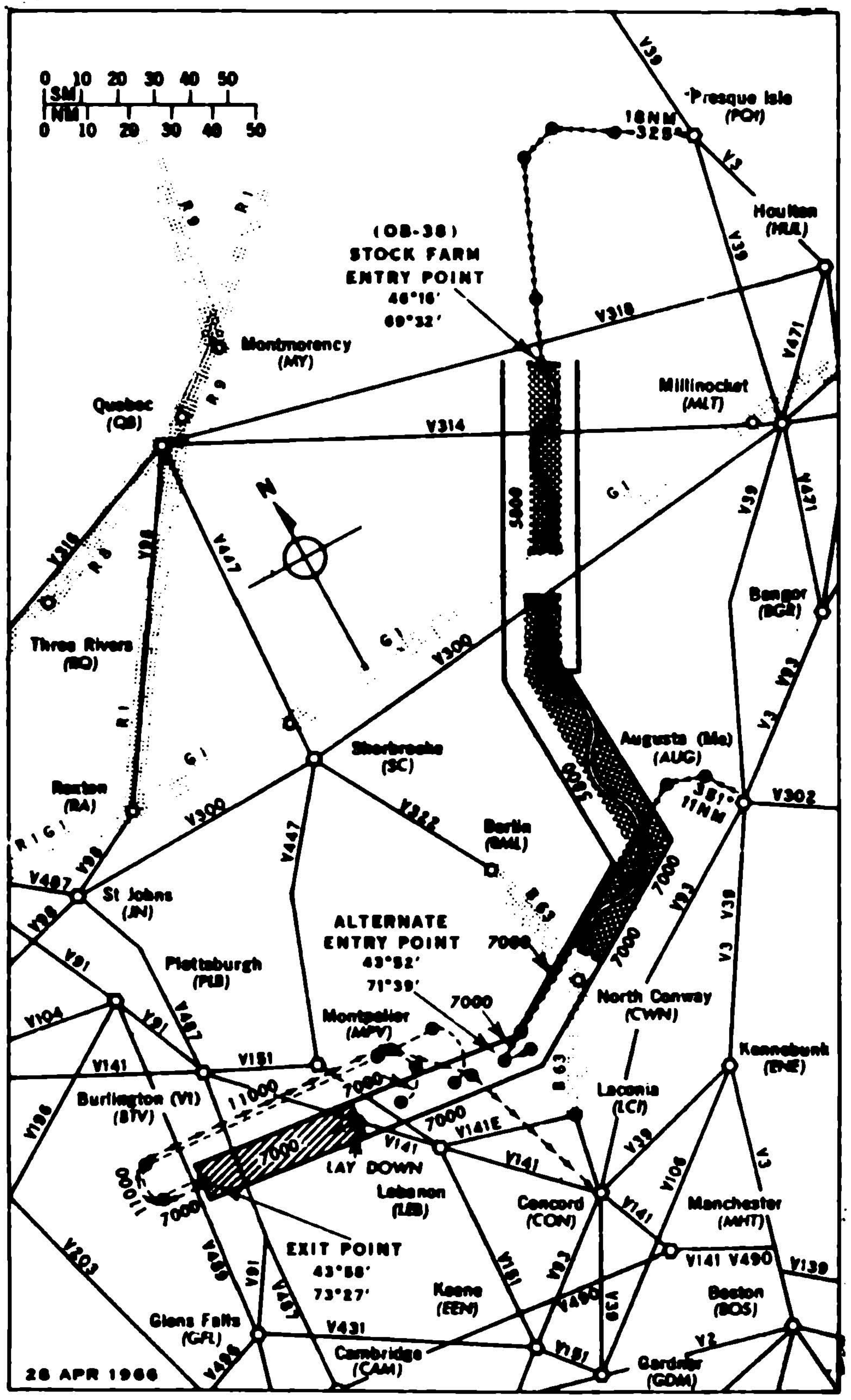
Effective: April 24, 1966 thru September 24, 1966

Aircraft shall cross 46°46'30''N, 68°06'W (Presque Isle, Maine VORTAC) at FL 250, or as assigned by ARTCC, then at FL250, or assigned FL, direct to 46°56'N, 68°28'W (Presque Isle VORTAC 325/18 NM DME fix); descend direct to cross 47°04'N, 68°46'W at or above FL 180; turn left descending to 47°02'N, 69°00'W; continue descent direct to cross 46°30'N, 69°22'30''W at or below 8000' MSL; descend direct to cross 46°16'N, 69°32'W route low level entry point at 5800' MSL; then at 5,800' MSL direct to 45°11'N, 70°24'W; direct 44°22'N, 70°22'W; climb direct so as to cross 44°17'N, 70°33'W at 7,000' MSL; direct 43°51'N, 71°30'W; (reporting point) direct 43°55''N, 72°32'W.

Lay Down—After passing 43°55'N, 72°32'W, aircraft shall operate at 7,000' MSL through the bomb run corridor (4 NM either side of centerline from 43°55'N, 72°32'W to 43°58'N, 73°27'W). After exiting the route at 43°58'N, 73°27'W, aircraft shall maintain 7,000' MSL direct 43°59'N, 73°41'W; (reporting point) turn right; climb to cross 44°09'N, 73°41'W at 11,000' MSL; direct 44°07'N, 72°11'W; climb direct to cross 43°52'N, 71°51'W at or below 14,000' MSL; then climb direct so as to cross 43°13'N, 71°35'W (Concord, N.H. VOR) at FL 230 or as assigned by ARTCC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 43°58'N, 73°27'W, maintain 7,000' MSL direct to 43°59'N, 73°41'W; (reporting point) turn right, climb to cross 44°09'N, 73°41'W at 11,000' MSL; then at 11,000' MSL direct 44°07'N, 71°55'W; turn right, descend to cross 43°53'N, 71°57'W at 7,000' MSL; thence via the published route. The aircraft may after 44°09'N, 73°41'W at 11,000' MSL; proceed direct to 44°07'N, 72°16'W; then turn right and descend so as to cross 44°00'N, 72°07'W at 7,000' MSL; then continue turn at 7,000' MSL; to 43°54'N, 72°16'W thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 46°16'N, 69°32'W to 45°36'30''N, 70°03'30''W and from 45°27'N, 70°11'W to 44°06'N, 70°58'W. VFR operations shall not be conducted during the hours of darkness.


0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
Presque Isle (PQI)
18NM 325°
V39
V3
Houlton (HUL)
(OB-38) STOCK FARM ENTRY POINT 46°16' 69°32'
V318
Montmorency (MY)
Quebec (QB)
V314
Millinocket (MLT)
V471
5800
G1
R9
R1
R8
V316
V98
V447
N
Three Rivers (RQ)
V300
Bangor (BGR)
V93
Augusta (Me) (AUG)
351° 11NM
V302
Sherbrooke (SC)
V322
Berlin (BML)
B63
Roxton (RA)
R1G1
V487
St Johns (JN)
ALTERNATE ENTRY POINT 43°52' 71°39'
7000
Plattsburgh (PLB)
V91
V104
Montpelier (MPV)
North Conway (CWN)
Kennebunk (ENE)
V141
V151
11000
Burlington (Vt) (BTV)
V196
V141E
LAY DOWN
Lebanon (LEB)
Laconia (LCI)
Concord (CON)
V106
Manchester (MHT)
V141 V490
V139
EXIT POINT 43°58' 73°27'
V203
V489
V431
Keene (EEN)
V181
Boston (BOS)
V2
Glens Falls (GFL)
Cambridge (CAM)
Gardner (GDM)
28 APR 1966

Alternate Entry—Aircraft shall cross 44°19'N, 69°47'W (Augusta, Maine VOR) at FL 180 or as assigned by ARTCC; then at FL 180 direct 44°29'N, 69°54'W (Augusta VOR 351° radial 11 NM); then at FL 180 or assigned altitude, turn left to 44°32'N, 70°06'W; descend direct to cross 44°11'N, 70°55'W at 7,000' MSL; direct 43°56'N, 71°30'W; then at 7,000' MSL direct to 43°52'N, 71°39'W; (reporting point) thence via the published route.

Route Width—The route width is reduced to 4 NM on the east side of centerline from 45°11'N, 70°24'W to 44°22'N, 70°22'W and to 4 NM on either side of centerline from 44°22"N, 70°22'W to 43°58'N, 73°27'W. The VFR route width is reduced to 2 NM on the W side of centerline from 46°16'N, 69°32'W to 45°36'30"N, 70°03'30"W.

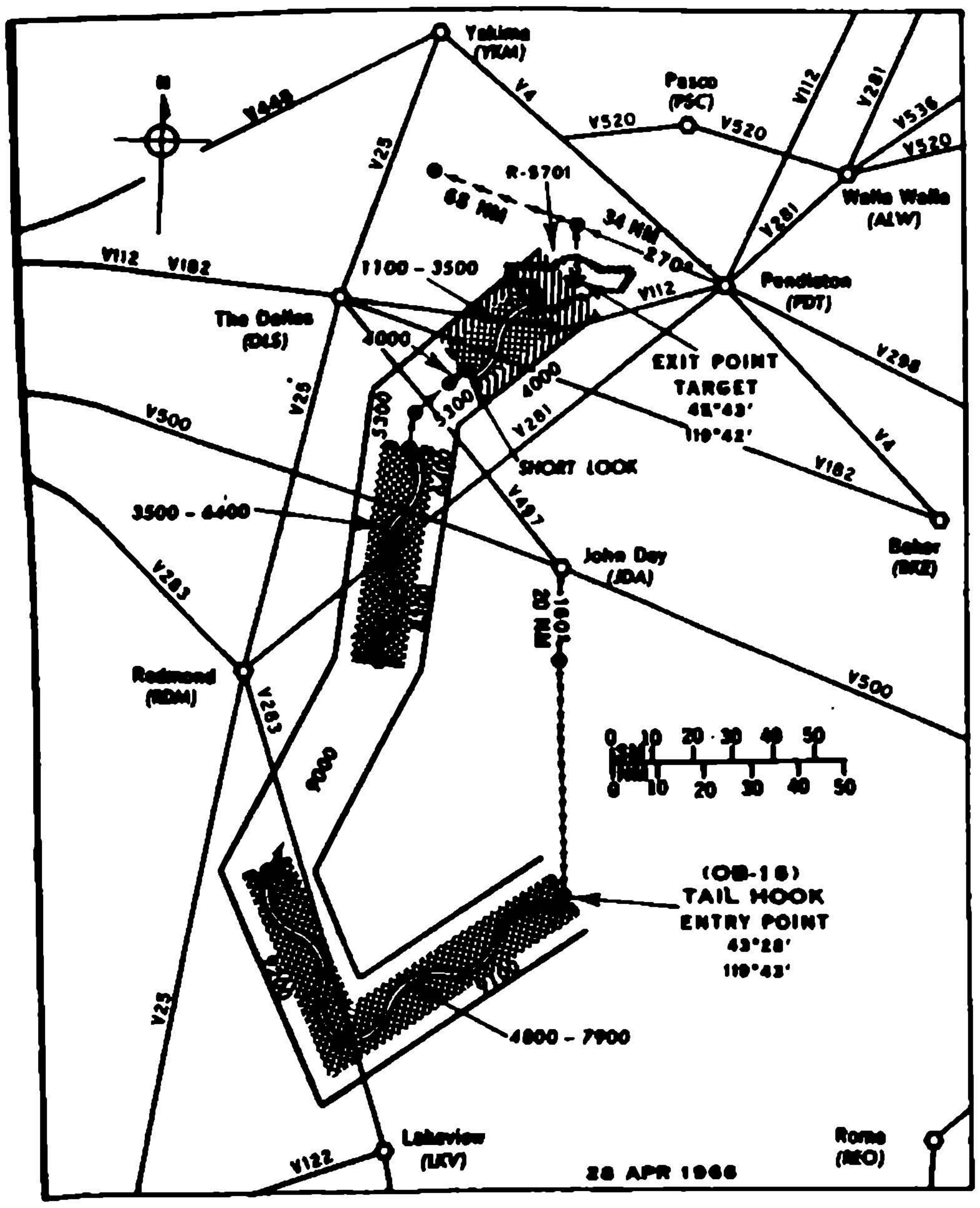
Hours of Operation—24 hours daily, 7 days per week.

OREGON

TAIL HOOK OB-16

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000' MSL, or as assigned by Seattle ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19'N, 119°43'W); then descend to 9100' MSL to the entry point of the low level route at 43°28'N, 119°43'W; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.



Short Look—After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R-5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 23,000' MSL.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R-5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE OB-17

Revised Effective January 6, 1966

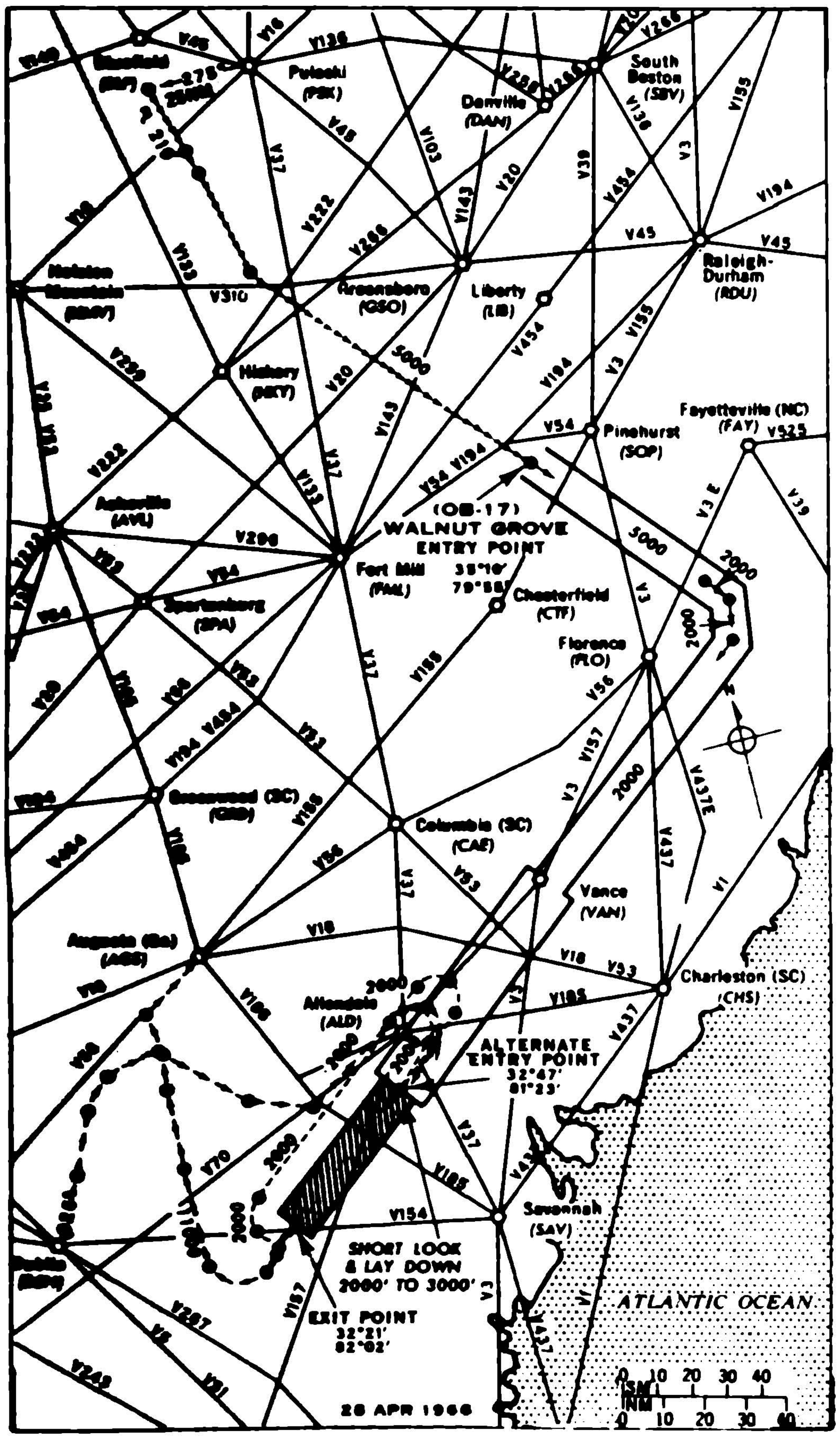
Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°18'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 81°23'W.

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000' MSL through the bomb run corridor (4 NM either side of center line from 32°47'N, 81°23'W to 32°21'N, 82°02'W). After exiting the route at 32°21'N, 82°02'W, aircraft shall climb to or maintain 3,000' MSL to 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4,000' MSL; cross 32°12'N, 82°15'W at 6,000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30"W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21'N, 82°02'W, turn right and descend or maintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' MSL continue turn to 32°30'N, 82°11'W; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04'N, 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 81°23'W; thence via the published route. Aircraft may proceed at 2000' MSL from 32°30'N, 82°11'W, direct 33°11'N, 81°09'30"W; turn right to 33°11'N, 80°59'30"W; continue turn to 33°02'N, 81°01'W; thence via published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 026° radial so as to cross 32°47'N, 82°59'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000'

MSL; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′, 81°10′W; continue turn to 32°55′N, 81°11′W; then at 2000′ MSL direct to intercept the Walnut Grove route at 32°47′N, 81°23′W.


Bluefield (BLF)
Pulaski (PSK)
Danville (DAN)
South Boston (SBV)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
Fayetteville (NC) (FAY)
Pinehurst (SOP)
Asheville (AVL)
(OB-17) WALNUT GROVE ENTRY POINT 35°10′ 79°58′
Fort Mill (FML)
Chesterfield (CTF)
Spartanburg (SPA)
Florence (FLO)
Greenwood (SC) (GRD)
Columbia (SC) (CAE)
Vance (VAN)
Augusta (Ga) (AGS)
Allendale (ALD)
Charleston (SC) (CHS)
ALTERNATE ENTRY POINT 32°47′ 81°23′
Savannah (SAV)
SHORT LOOK & LAY DOWN 2000′ TO 3000′
EXIT POINT 32°21′ 82°02′
ATLANTIC OCEAN
5000
2000
SM 0 10 20 30 40
NM 0 10 20 30 40
28 APR 1966

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26′N, 80°25′W to 32°47′N, 81°23′W the route width is reduced to 6 NM.

Hour of Operation—24 hours daily, 7 days a week.

KANSAS/OKLAHOMA/TEXAS

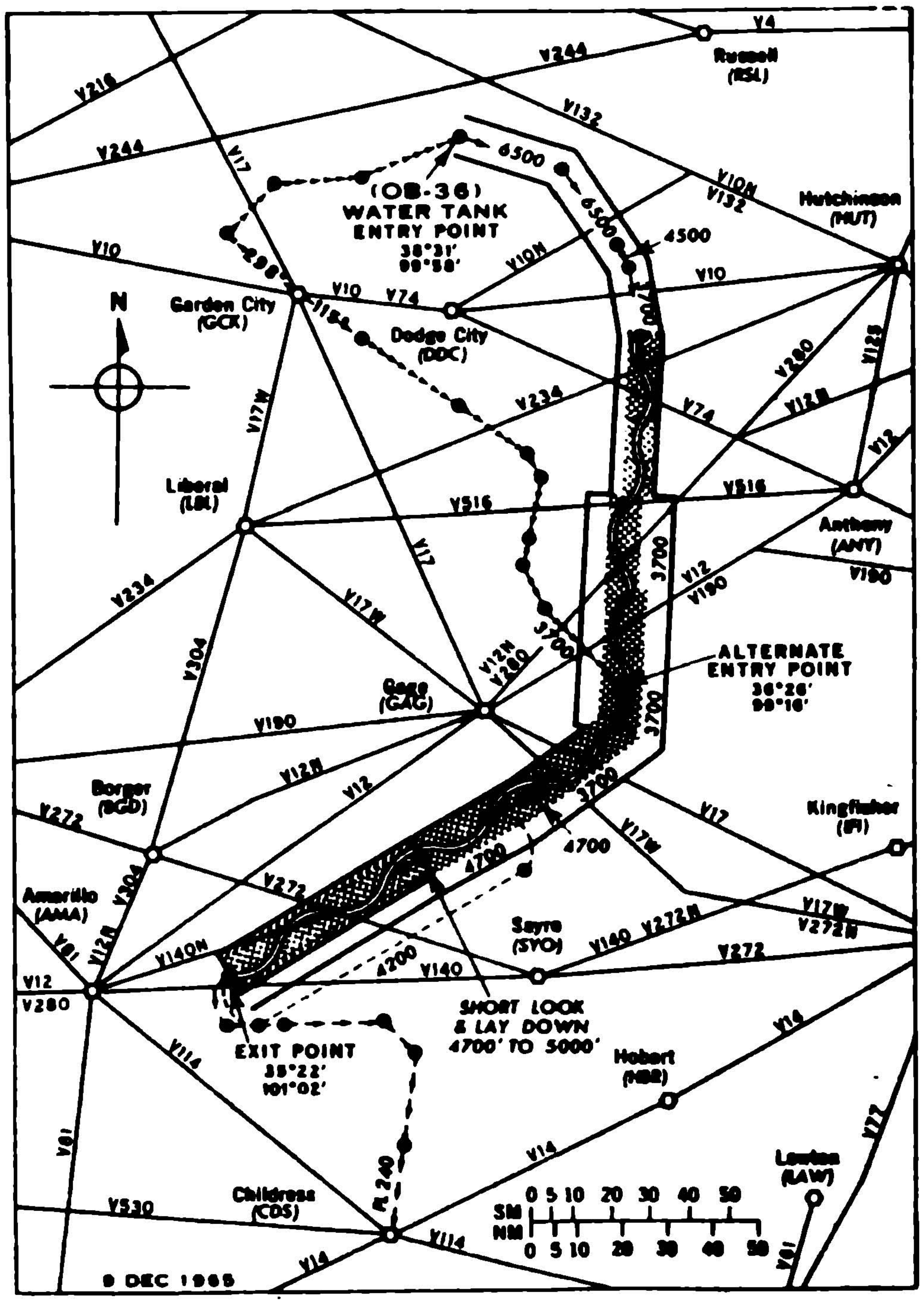
WATER TANK OB–36

Effective January 3, 1966 through June 25, 1966

Aircraft shall cross the Garden City, Kansas, VORTAC at FL 240 or as assigned by ARTC; then at FL 240, or assigned FL, proceed via the 298° radial of the Garden City VORTAC until 21 NM northwest (38°08′N, 101°04′W); then turn right descending so as to cross 38°20′N, 100°51′W at 17,000′ MSL; the descend direct so as to cross 38°22′N, 100°26′W at 11,000′ MSL; then descend direct so as to cross the route low level entry point at 38°31′N, 99°58′W at 6,500′ MSL; then at 6,500′ MSL turn right direct to 38°23′N, 99°30′W; then at 6,500′ MSL direct to 38°05′30″N, 99°15′W; then descend direct so as to cross 38°01′30″N, 99°12′W at 4,500′ MSL; then descend direct so as to cross 37°45′N, 99°09′W at 3,700′ MSL; then at 3,700′ MSL direct to 36°26′N, 99°16′W; then at 3,700′ MSL direct to 36°17′N, 99°17′W; then at 3,700′ MSL turn right to 36°03′N, 99°38′W; then climb direct so as to cross 36°01′N, 99°42′W at 4,700′ MSL; then at 4,700′ MSL direct to the entry point of the bomb run corridor at 35°48′N, 100°10′W.

Short Look and Lay Down—After passing 35°48′N, 100°10′W, aircraft shall operate between 4,700′ MSL and 5,000′ MSL through the bomb run corridor (4NM either side of centerline from 35°48′N, 100°10′W to 35°22′N, 101°02′W). After exiting the route at 35°22′N, 101°02′W, aircraft shall turn left and maintain or climb so as to cross 35°10′N, 101°08′W at 5,000′ MSL; then continue left turn climbing so as to cross 35°10′N, 100°47′W at 8,000′ MSL; then climb direct so as to cross 35°11′N, 100°20′W at 16,000′ MSL; then turn right climbing so as to cross 35°04′N, 100°11′30″W at FL 200; then climb direct so as to cross 34°43′N, 100°14′30″W at FL 240; then at FL 240 direct to the Childress, Texas VOR.

· **Re-Entry**—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 35°22′N, 101°02′W, turn left and descend so as to cross 35°10′N, 100°54′W at 4,200′ MSL; then at 4,200′ MSL direct to 35°45′N, 99°42′W; then turn left climbing so as to cross 35°57′N, 99°51′W at 4,700′ MSL; thence via the published route.


Russell (RSL)
(OB-36) WATER TANK ENTRY POINT 38°31′ 99°58′
6500
4500
Hutchinson (HUT)
N
Garden City (GCK)
Dodge City (DDC)
Liberal (LBL)
Anthony (ANY)
ALTERNATE ENTRY POINT 36°26′ 99°16′
3700
Gage (GAG)
Borger (BGD)
Kingfisher (IFI)
4700
Amarillo (AMA)
Sayre (SYO)
4200
SHORT LOOK & LAY DOWN 4700′ TO 5000′
EXIT POINT 35°22′ 101°02′
Hobart (HBR)
Childress (CDS)
Lawton (LAW)
R 240
SM 0 5 10 20 30 40 50
NM 0 5 10 20 30 40 50
9 DEC 1965

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitude and 800' above the immediate terrain between the following points: from 37°-45'N, 99°09'W to 35°22'N, 101°02'W.

Alternate Entry—Aircraft shall cross the Garden City, Kansas VORTAC at FL 240 or as assigned by ARTC; then descend direct via the 115° radial of the Garden City VORTAC so as to cross 115/17 NM DME Fix (37°-45'N, 100°26'W) at FL 220 ; then descend direct so as to cross 37°29'30"N, 99°59'W at 13,000' MSL; then descend direct so as to cross 37°19'30"N, 99°40'W at 12,000' MSL; then turn right descending so as to cross 37°13'N, 99°37'W at 10,000' MSL; then descend direct so as to cross 37°00'N, 99°40'W at 9,000' MSL; then descend direct so as to cross 36°54'N, 99°42'W at 7,000' MSL; then turn left descending so as to cross 36°44'N, 99°36' W at 3,700' MSL; then at 3,700' MSL direct 36°26'N, 99°16'W; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline from 38°31'N, 99°58'W to 37°09' N, 99°12'W and 4 NM on the northwest side of centerline from 36°17'N, 99°17'W to 35°22'N, 101°02'W. The VFR route width is reduced to 2NM on the west side of centerline from 37°45'N, 99°09'W to 37°09'N, 99°12'W and to 2NM on the east side of centerline from 37°09'N, 99°12'W to 36°48'N, 99°13'W.

Hours of Operation—24 hours daily, 7 days per week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB-18

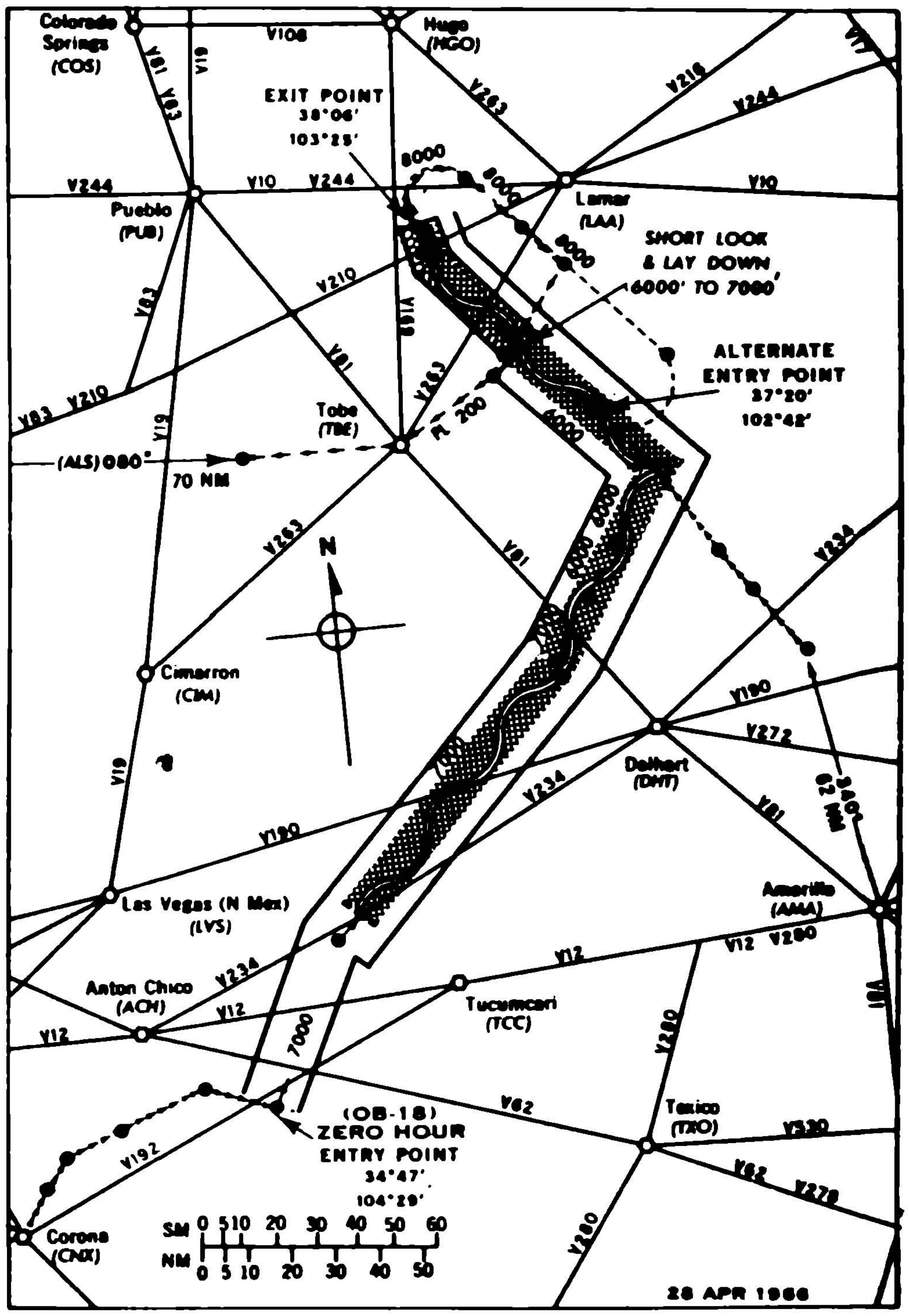
Revised Effective April 14, 1966

Aircraft shall cross 34°22'N, 105°40'30"W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33' N, 105°33'W at or below FL 230; then descend direct to cross 34°40'N, 105°28'W at FL 220; then descend direct to cross 34°45'N, 105°12'W at or below 17,000' MSL; then descend direct to cross 34°53'N, 104°48'W at 10,000' MSL; then descend direct to cross the route entry point at 34°47'N, 104°29' W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104°08'W; then 7000' MSL direct to 36°22'N, 103°00'W; then 7000' MSL direct to 36°37'N, 102°49'W; then descend direct to cross 36°49'N, 102°40'W at 6000' MSL; then 6000' MSL direct to 37°06'N, 102°-27'W; then 6000' MSL direct to 37°36'N, 103°00'W.

Short Look and Lay Down—After passing 37°36'N, 103°-00'W, aircraft shall maintain between 6000' MSL and 7000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°36'N, 103°00'W to 37°57'N, 103°-22'W to 38°06'N, 103°25'W). After exiting the route at 38°06'N, 103°25'W climb direct to cross 38°09'N, 103°-26'W at 8000' MSL, turn right, maintain 8000' MSL to 38°15'N, 103°10'W, then 8000' MSL direct to 38°02'N, 102°55'W, then climb direct to cross 37°53'N, 102°45'W at 9000' MSL, continue climb direct to cross 37°30'N, 103°08'W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16'N, 104°21'W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06'N, 103°25'W, climb direct to cross 38°09'N, 103°26'W at 8000' MSL, maintain 8000' MSL right turn to 38°15'N, 103°10'W, then 8000' MSL direct 37°29'N, 102°18'W; then turn right descending to cross 37°14'N, 102°35'W at 6000' MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 35°30'N, 104°01'W to 38°06'N, 103°25'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.


Colorado Springs (COS)
Hugo (HGO)
EXIT POINT 38°06' 103°25'
8000
Pueblo (PUB)
Lamar (LAA)
SHORT LOOK & LAY DOWN, 6000' TO 7000'
ALTERNATE ENTRY POINT 37°20' 102°42'
Tobe (TBE)
FL 200
(ALS) 080°
70 NM
N
Cimarron (CIM)
Dalhart (DHT)
340° 62 NM
Las Vegas (N Mex) (LVS)
Amarillo (AMA)
Anton Chico (ACH)
Tucumcari (TCC)
7000
6000
(OB-18) ZERO HOUR ENTRY POINT 34°47' 104°29'
Texico (TXO)
Corona (CNX)
SM 0 5 10 20 30 40 50 60
NM 0 5 10 20 30 40 50
V108
V81
V83
V19
V263
V216
V244
V10
V210
V189
V234
V190
V272
V280
V12
V62
V192
V330
V278
28 APR 1966

Alternate Entry—Aircraft shall cross 36°19'N, 101°51'W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34'N, 102°03'W at 17,000' MSL; then descend direct to cross 36°44'N, 102°11'W at 14,000' MSL; then descend direct to cross 37°06'N, 102°27'W at 11,000' MSL; then descend direct to cross 37°20'N, 102°42'W at 6000' MSL; thence via the published route.

Route Width—The route width from 34°47'N, 104°29'W to 35°24'N, 104°08'W is reduced to 4 NM on the east side of centerline, and from 37°36'N, 103°00'W, to 38°06'N, 103°25'W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective May 21, 1966:

Location	Procedure	Action
	AUTOMATIC DIRECTION FINDING	
Houston, Texas—William P. Hobby Arpt	No. 2, Amdt. 3, efctv 17 Apr 65	Cancellled
Houston, Texas—William P. Hobby Arpt	No. 3, Amdt. 4, efctv 17 Apr 65	Cancelled
	VHF OMNIRANGE	
Lake Charles, La.—East Lake Charles Arpt	No. 1, Orig.	Established
Oklahoma City, Okla.—Will Rogers World Arpt	No. 1, Amdt. 11	Revised
Rogers, Ark.—Muni Arpt	No. 1, Amdt. 1	Revised
South Boston, Va.—William M. Tuck Arpt	No. 1, Orig.	Established
Wierwood, Va.—Kellam Field	No. 1, Orig.	Established
	TERMINAL VOR	
Fayetteville, N.C.—Grannis Field	TerVOR–3, Amdt. 4	Revised
Las Vegas, Nev.—McCarran Arpt	VOR–25, Amdt. 1	Revised
Las Vegas, Nev.—McCarran Arpt	VOR R–166, Amdt. 4	Revised
Marysville, Calif.—Yuba County Arpt	VOR–32, Amdt. 2	Revised
	VOR/DME	
Las Vegas, Nev.—McCarran Field	VOR/DME #1, Amdt. 4, efctv 6 Jun 64	Cancellled
Las Vegas, Nev.—McCarran Arpt	VOR/DME #3, Amdt. 1	Revised
Las Vegas, Nev.—McCarran Field	VOR/DME #4, Orig., efctv 3 Jun 65	Cancelled
	RADAR	
Las Vegas, Nev.—McCarran Arpt	No. 1, Amdt. 1	Revised
Lubbock, Texas—Lubbock Arpt	No. 1, Orig.	Established

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective May 28, 1966:

	AUTOMATIC DIRECTION FINDING	
Elmira, N.Y.—Chemung County Arpt	No. 1, Amdt. 5	Revised
Garden City, Kans.—Garden City Muni Arpt	No. 1, Amdt. 3	Revised
Idaho Falls, Idaho—Fanning Field	No. 1, Amdt. 4	Revised
Philadelphia, Pa.—N. Philadelphia Arpt	No. 1, Amdt. 2	Revised
	VHF OMNIRANGE	
Burlington, Iowa—Burlington Municipal Arpt	No. 1, Amdt. 1	Revised
Goshen, Ind.—Goshen Arpt	No. 1, Amdt. 4	Revised
Gulfport, Miss.—Gulfport Municipal Arpt	No. 1, Orig.	Established
Iowa City, Iowa—Iowa City Municipal Arpt	No. 1, Amdt. 4	Revised
Lawrenceville, Va.—Lawrenceville Municipal Arpt	No. 1, Orig.	Established
Madison, Miss.—Bruce Campbell Field	No. 1, Amdt. 3	Revised
Readington, N.J.—Solberg-Hunterdon Arpt	No. 1, Amdt. 3	Revised
Rock Hill, S.C.—Rock Hill Municipal Arpt	No. 1, Orig.	Established

TERMINAL VOR

Location	Procedure	Action
Danville, Va.—Danville Municipal Arpt	TerVOR–2, Amdt. 8	Revised
Danville, Va.—Danville Municipal Arpt	TerVOR–24, Amdt. 4	Revised
Garden City, Kans.—Garden City Municipal	TerVOR–17, Amdt. 4	Revised
Garden City, Kans.—Garden City Municipal	TerVOR–35, Orig.	Established
Gulfport, Miss.—Gulfport Municipal Arpt	TerVOR–13, Amdt. 6, efctv 2 Oct 65	Cancellled
Idaho Falls, Idaho—Fanning Field	VOR–2, Amdt. 8	Revised
Idaho Falls, Idaho—Fanning Field	VOR–20, Amdt. 5	Revised
Paso Robles, Calif.—Paso Robles-County Arpt	VOR R–133, Amdt. 4	Revised
Rhinelander, Wis.—Rhinelander-Oneida County Arpt	TerVOR–5, Amdt. 1	Revised
Rhinelander, Wis.—Rhinelander-Oneida County Arpt	TerVOR–15, Amdt. 4	Revised

VOR/DME

Location	Procedure	Action
Garden City, Kans.—Garden City Municipal Arpt	VOR/DME #1, Orig., efctv 10 Apr 65	Cancelled
Garden City, Kans.—Garden City Municipal Arpt	VOR/DME #2, Orig., efctv 10 Apr 65	Cancelled
Madison, Miss.—Bruce Campbell Field	VOR/DME #1, Amdt. 1	Revised
Massena, N.Y.—Richards Field	VOR/DME #2, Amdt. 1	Revised
Paso Robles, Calif.—Paso Robles-County Arpt	VOR/DME #1, Orig., efctv 16 Oct 65	Cancelled
Winder, Ga.—Winder Arpt	VOR/DME #1, Orig.	Established

INSTRUMENT LANDING SYSTEM

Location	Procedure	Action
Allentown, Pa.—Allentown-Bethlehem-Easton Arpt	ILS–6, Amdt. 8	Revised
Elmira, N.Y.—Chemung County Arpt	ILS–24, Amdt. 7	Revised

RADAR

Location	Procedure	Action
Des Moines, Iowa—Des Moines Municipal Arpt	No. 1, Amdt. 4	Revised
Wichita, Kans.—Beech Factory Arpt	No. 1, Amdt. 2, efctv 22 May 65	Cancelled

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective June 4, 1966:

AUTOMATIC DIRECTION FINDING

Location	Procedure	Action
Anderson, Ind.—Anderson Municipal Arpt	No. 1, Amdt. 3	Revised
Anniston, Ala.—Anniston Municipal Arpt	No. 1, Amdt. 3	Revised
Birmingham, Ala.—Municipal Arpt	No. 1, Amdt. 17	Revised
Birmingham, Ala.—Municipal Arpt	No. 2, Amdt. 4	Revised
Houston, Tex.—Andrau Airpark	No. 1, Amdt. 8	Revised
Houston, Tex.—William P. Hobby Arpt	No. 1, Amdt. 24	Revised
Houston, Tex.—William P. Hobby Arpt	No. 4, Amdt. 3	Revised
Pratt, Kans.—Pratt Municipal Arpt	No. 1, Amdt. 1	Revised
Redstone Aresenal, Ala.—Redstone AAF	No. 1, Amdt. 6	Revised
Redstone Aresenal, Ala.—Redstone AAF	No. 2, Amdt. 1	Revised
Sturgis, Mich.—Kirsch Municipal Arpt	No. 1, Orig.	Established
Traverse City, Mich.—Traverse City Municipal Arpt	No. 1, Amdt. 3	Revised

VHF OMNIRANGE

Location	Procedure	Action
Jackson, Miss.—Allen C. Thompson Field	No. 1, Amdt. 5	Revised
Kalispell, Mont.—Flathead County Arpt	No. 1, Amdt. 2	Revised
Medford, Oreg.—Medford Municipal Arpt	No. 1, Amdt. 8	Revised
Phoenix, Ariz.—Sky Harbor Municipal Arpt	No. 2, Amdt. 4, efctv 27 Jul 63	Cancelled
Traverse City, Mich.—Traverse City Municipal Arpt	No 1, Amdt. 6	Revised

TERMINAL VOR

Location	Procedure	Action
Dunkirk, N.Y.—Dunkirk Municipal Arpt	TerVOR–24, Orig.	Established
Redstone, Ala.—Redstone AAF	TerVOR–17, Orig.	Established
Redstone, Ala.—Redstone AAF	TerVOR–35, Orig.	Established
Strongsville, Ohio—Strongsville Airpark	TerVOR–9, Orig.	Established

Location	Procedure	Action
VOR/DME		
Houston, Tex.—William P. Hobby Arpt	VOR/DME #1, Amdt. 5	Revised
Houston, Tex.—William P. Hobby Arpt	VOR/DME #2, Amdt. 8	Revised
Houston, Tex.—William P. Hobby Arpt	VOR/DME #3, Amdt. 6	Revised
Houston, Tex.—William P. Hobby Arpt	VOR/DME #4, Amdt. 2	Revised
Jackson, Miss.—Allen C. Thompson Field	VOR/DME #1, Amdt. 3	Revised
Medford, Oreg.—Medford Municipal Arpt	VOR/DME #1, Amdt. 3	Revised
Medford, Oreg.—Medford Municipal Arpt	VOR/DME #2, Amdt. 1	Revised
INSTRUMENT LANDING SYSTEM		
Birmingham, Ala.—Municipal Arpt	ILS–5, Amdt. 20	Revised
Houston, Tex.—William P. Hobby Arpt	ILS–3, Amdt. 26	Revised
Houston, Tex.—William P. Hobby Arpt	ILS–21, (Back Course), Amdt. 12	Revised
Jackson, Miss.—Allen C. Thompson Field	ILS–15L, Amdt. 3	Revised
RADAR		
Birmingham, Ala.—Municipal Arpt	No. 1, Amdt. 7	Revised
Redstone Arsenal, Ala.—Redstone AAF	No. 1, Amdt. 5	Revised

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U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY
WASHINGTON SCIENCE CENTER
ROCKVILLE, MD. 20852

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See: "Dates of Latest Editions - Instrument Approach Procedure Charts" for current dates of AL Charts.
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INSTRUMENT APPROACH PROCEDURE CHARTS

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• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	ALABAMA				
5127	Auburn(Auburn-Opelika)	5-7-66(1)			
50	Birmingham		4-30-66(1) 4-30-66(2)	4-30-66R5	
123	Dothan	4-30-66(1) 4-30-66DME(1)			
5340	Fort Rucker (Shell AHP) (For Helicopter Use Only)	5-14-66(1)			
633	Huntsville(Madison Co.)	5-14-66(1)	5-14-66(1)	5-14-66R18 5-14-66R36(BC)	
	ALASKA				
1522	Anchorage(Merrill Fld)				4-30-66
1241	Cold Bay		5-14-66(1)	5-14-66R14	
1235	Kenai	5-14-66(1)			5-14-66
1225	McGrath	5-14-66DME(1)			
	ARIZONA				
511	Yuma (MCAS/Yuma Intnl)	5-14-66(1)	5-14-66(1)		
	ARKANSAS				
631	Fort Smith	5-7-66(1)	5-7-66(1)	5-7-66R25	
5002	Rogers	5-21-66(1)	5-21-66(1)		
	CALIFORNIA				
5271	Fort Ord(Fritzsche AAF)	4-23-66(1)	4-23-66(1)*		
882	Montague(Siskiyou Co.)		5-14-66(1)		
310	Palmdale (AF Plant No. 42)	5-14-66R22 5-14-66DME(1)			
	COLORADO				
114	Denver(Stapelton Intnl)	4-23-66(1)	4-23-66(1) 4-23-66(2)	4-23-66R26L 4-23-66R35 4-23-66R8R(BC) 4-23-66R17(BC)	
	CONNECTICUT				
189	Hartford(Brainard Fld.)	5-7-66(1)	5-7-66(1)		
	DISTRICT OF COLUMBIA				
5100	Washington (Dulles Intnl)		5-14-66(1) 5-14-66(2)	5-14-66R1R 5-14-66R19R	
443	Washington(National)	4-30-66DME(2)*			
	FLORIDA				
5343	Fort Pierce(St. Lucie Co.)	5-7-66DME(1)			
207	Jacksonville (Imeson)	5-7-66(1) 5-7-66DME(1) 5-7-66DME(2)	5-7-66(1) 5-7-66(2)	5-7-66R5	
305	Orlando (Herndon)	5-14-66DME(1) 5-14-66DME(2)	5-14-66(1)	5-14-66R7 5-14-66R25(BC)	
437	Vero Beach	5-7-66(1)			
	GEORGIA				
26	Atlanta		5-14-66(4)	5-14-66R9R	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	GEORGIA				
469	Atlanta (DeKalb-Peachtree)	5-14-66(1)			
636	Columbus(Muscogee Co.)	5-14-66(1)	5-14-66(1)	5-14-66R5	
5355	Cordele	4-28-66DME(1)*			
5356	Douglas	4-28-66DME(1)*			
5146	Dublin (Municipal)	5-14-66(1)			
243	Macon		5-14-66(1)	5-14-66R5	
380	Savannah(Travis-Chatham)	5-14-66(1)		5-14-66R27(BC)	
5262	Toccoa	5-7-66(1)			
	ILLINOIS				
710	Decatur	5-14-66(1)			
211	Joliet	5-7-66(1)			
	INDIANA				
5133	Anderson		5-14-66(1)		
5287	Elkhart	5-7-66(1)	5-7-66(1)		
203	Indianapolis(Weir Cook)	5-14-66(1)		5-14-66R22(BC)	
5064	Marion	5-7-66R4 5-7-66R22			
	KANSAS				
200	Hutchinson		5-14-66(1)	5-14-66R13	
212	Kansas City (Fairfax)	5-15-66(1)	5-15-66(1)	5-15-66	
	KENTUCKY				
655	Covington (Grtr Cincinnati)	4-30-66(1) 4-30-66(2)	4-30-66(1)	4-30-66R36	
151	Fort Knox (Godman AAF)	4-30-66R15 4-30-66R17 4-30-66R35	4-30-66(1)		
	LOUISIANA				
865	Lafayette	4-23-66(1)	4-23-66(2)	4-23-66R19 4-23-66R1(BC)	
5083	Lake Charles		4-30-66(1)	4-30-66R15	
5111	Lake Charles (East)	5-21-66(1)*			
270	Monroe	5-7-66(1) 5-7-66DME(2)			
392	Shreveport (Downtown)	5-7-66R14			
	MAINE				
29	Augusta (State)	4-30-66R26	4-30-66(1)		
	MARYLAND				
555	Aberdeen(Phillips AAF)		4-23-66(1)		
804	Baltimore (Friendship Intnl)	4-30-66R10 4-30-66R28 4-30-66DME(1) 4-30-66DME(2) 4-30-66DME(3)	4-30-66(1)	4-30-66R10 4-30-66R28(BC)	
5089	Frederick	4-30-66R23			
5212	Gaithersburg(Montgomery Co)		4-30-66(1)		

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		MASSACHUSETTS			
58	Boston(Logan Intnl)	5-14-66R27 5-14-66R4R 5-14-66R22L 5-14-66R33L 5-14-66DME(1)	5-14-66(1) 5-14-66(2) 5-14-66(3)	5-14-66R4R 5-14-66R33L	
149	Fort Devens	4-30-66R14			
446	Westfield (Barnes)	5-14-66R20	5-14-66(1)		
		MICHIGAN			
41	Battle Creek (Kellogg Regional)	4-23-66R4 4-23-66R22 4-23-66R31	4-23-66(1)	4-23-66R22 4-23-66R4(BC)	
5259	Coldwater(Branch Co. Mem.)		5-14-66(1)		
618	Flint (Bishop)	5-7-66R5 5-7-66R23 5-7-66R9 5-7-66R27 5-7-66R18	5-7-66(1)	5-7-66R9	
5184	Grand Rapids (Kent County)		4-23-66(1)	4-23-66R26	
5213	Ironwood (Gogebic Co.)	5-7-66Rad-255			
717	Kalamazoo		4-23-66(1)	4-23-66R35	
781	Marquette (County)	5-7-66R8 5-7-66R26			
		MINNESOTA			
5353	Fairmont	4-28-66R31*			
5158	Minneapolis (Crystal)	5-7-66(1)			
5201	Thief River Falls	5-7-66R13 5-7-66R31			
		MONTANA			
887	Kalispell(Flathead Co.)	4-30-66(1)			
		NEBRASKA			
383	Scottsbluff	5-7-66(1) 5-7-66DME(1)	5-7-66(1)		
		NEW JERSEY			
891	Millville				5-14-66
5074	Vineland (Downstown)	5-14-66R2			
5357	Vineland (Kroelinger)	5-7-66(1)*			
5253	Vineland (Rudy's)	5-14-66(1)			
		NEW MEXICO			
355	Roswell	4-23-66(1) 4-23-66(2)			

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	NEW YORK				
988	Amityville (Zahns)	4-30-66(1)	4-30-66(1)		
701	Bethpage (Grumman-Bethpage)	4-30-66(1)	4-30-66(1)		
5339	Buffalo (Airpark)	4-30-66(1)			
65	Buffalo(Grtr. Intl)	4-30-66DME(1)	4-30-66(1) 4-30-66(2)	4-30-66R23 4-30-66R5	
5161	Deer Park	4-30-66(1)			
704	Farmingdale (Republic Fld)	4-30-66DME(1)	4-30-66(1)		
948	Islip (Long Island-Mac-Arthur)		5-7-66(1)	5-7-66R6 5-7-66R24(BC)	
289	New York (La Guardia)	4-30-66(1) 4-30-66(2)	4-30-66(1) 4-30-66(2)	4-30-66R4 4-30-66R22 4-30-66R13 4-30-66R5(BC)	
614	Niagara Falls		4-23-66(1)	4-23-66R28R	
5072	Olean		4-30-66(1)		
666	Watertown	5-7-66(1)			
	NORTH CAROLINA				
78	Charlotte (Douglas)		4-30-66(1)	4-30-66R5	
690	Fayetteville (Grannis Fld)	5-21-66R3			
	NORTH DAKOTA				
120	Dickinson	4-28-66(1)			
144	Fargo (Hector)		4-30-66(2)	4-30-66R17(BC)	
635	Minot (Intl)	5-14-66(1) 5-14-66(2)			5-14-66
	OHIO				
5208	Athens(Ohio University)		5-7-66(1)		
5009	Bowling Green (University)	5-14-66(1)			
94	Columbus(Port Columbus Intnl)		4-30-66(2) 4-30-66(3)	4-30-66R10R(BC) 4-30-66R10L	
5042	Dayton (Montgomery Co.)	4-23-66R20 4-23-66Rad-146			
5047	Sidney	5-7-66(1)			
958	Springfield		4-23-66(1)		
421	Toledo	5-14-66(1)			
184	Toledo (Express)	5-7-66(1) 5-7-66DME(1)	5-7-66(1)	5-7-66R7 5-7-66R25(BC)	
	OKLAHOMA				
163	Gage	4-30-66(1)			
301	Oklahoma City(Will Rogers World)	5-21-66(1)	5-7-66(1)	5-7-66R35L	
432	Tulsa (Intnl)	5-7-66(1)		5-7-66R17(BC)	
	OREGON				
330	Portland (Intnl)	4-30-66DME(1)		4-30-66R10L(BC)	

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	PENNSYLVANIA				
139	Erie(Port Erie)	5-14-66DME(1)*			
5007	Franklin (Chess-Lamberton)	5-14-66(1)	5-14-66(1)		
5153	Mt. Pocono		5-14-66(1)		
5273	Selinsgrove(Penn Valley)	5-14-66(1)			
	SOUTH CAROLINA				
857	Anderson (County)	4-30-66(1)			
5354	Charleston (John's Island)	4-28-66DME(1)*			
180	Greenville (Downtown)		4-23-66(1)	4-23-66R36	
183	Greenwood (County)	4-30-66R9 4-30-66R27			
5124	Greer(Greenville-Spartanburg)		5-14-66(1)	5-14-66R3 5-14-66R21(BC)	
401	Spartanburg (Downtown Mem)	4-30-66DME(1) 4-30-66DME(2)	4-30-66(1)		
	SOUTH DAKOTA				
324	Pierre	5-7-66(1)			
	TENNESSEE				
426	Bristol (Tri-City)		5-7-66(1) 5-14-66(2)	5-7-66R22	
	TEXAS				
30	Austin (Mueller)		4-23-66(1)	4-23-66R30L	
5244	Bridgeport (Mun. Airstrip)	5-7-66DME(1)			
5032	Corpus Christi (Intnl)	5-14-66(1)	5-14-66(1) 5-14-66(2)	5-14-66R13 5-14-66R31(BC)	
5192	Dallas(Dallas-Garland)	5-7-66(1)			
134	El Paso (Intnl)	5-14-66(1) 5-14-66DME(1)	5-14-66(1) 5-14-66(2)	5-14-66R22	
985	McAllen(Miller Intnl)	5-7-66R13 5-7-66Rad-086			
369	San Antonio (Intnl)	4-23-66(1)	4-23-66(1) 4-23-66(3)	4-23-66R3 4-23-66R12 4-23-66R21(BC)	
438	Victoria (Co. - Foster)	5-14-66(1)			
439	Waco	5-7-66DME(1)*			
454	Wichita Falls(Sheppard AFB/ Wichita Falls Air Term)	5-14-66(1)	5-14-66(1)	5-14-66R33 5-14-66R15(BC)	
	VIRGINIA				
599	Danville	5-14-66R2 5-14-66R24			
499	Lynchburg(Preston Glenn)		4-23-66(1)	4-23-66R3	
5112	South Boston(Wm. M. Tuck)	5-21-66(1)*			
5358	Weirwood(Kellam Fld)	5-21-66(1)*			
5251	Winchester	5-7-66(1)			

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		WASHINGTON			
138	Ephrata	4-30-66(1)			
440	Walla Walla (City-Co.)	4-30-66R16 4-30-66R2 4-30-66R20	4-30-66(1)		
		WISCONSIN			
219	La Crosse	4-30-66R36			
262	Milwaukee (General Mitchell)			4-23-66R19(BC)	
730	Oshkosh (Winnebago Co.)		5-14-66(1)	5-14-66R9	
		WYOMING			
80	Cheyenne	5-7-66(1)	5-7-66(1)	5-7-66R26	
353	Rock Springs		5-7-66(1)	5-7-66R25	
		AMERICAN SAMOA			
5018	Tutuila Island(Pago Pago Intnl)	5-14-66Rad-230	5-14-66(2)		
		PUERTO RICO			
784	San Juan(Puerto Rico Intnl)	5-14-66(1) 5-14-66R7 5-14-66R25	5-14-66(1)		
		RADAR			
Radar	Pages 1-18	5-7-66			

AIRMAN'S
INFORMATION
MANUAL

FEDERAL AVIATION AGENCY

PART 3A

EFFECTIVE 0501Z 26 MAY 1966

To 0501Z 9 JUNE 1966

NOTICES
TO
AIRMEN

Part 3-A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necessarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and lndgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

BIRMINGHAM MUNI ARPT TWR: Glide slope serving rnwy 5 shutdown UFN.

BRANTLEY MUNI ARPT: Clsd until July 1966.

EVERGREEN RDO: May 15, VOR will be shutdown until aprxly May 26 for relctn to Monroeville, name to be changed to Monroeville. Ident to be "MVC". During shutdown RBn to be available at same lctn, ident: "TEV" freq 273 kc.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft. (12–23)

MOBILE RDO: June 6, VORTAC will be shut down til aprxly June 8.

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd until aprxly July 1966. VFR acft ctc Craig Twr on 126.2 for tfc and lndg advisories.

ARIZONA

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PEACH SPRINGS RDO: June 8, TACAN will be shutdown until aprxly June 24. VOR portion will be shutdown during dalgt hrs June 13 until aprxly June 15.

PHOENIX, SKY HARBOR MUNI ARPT: 1200′ additional rnwy avail dalgt hrs E end of rnwy 8R–26L at pilot's discretion, due engr test.

TUCSON RDO: VHF/DF unusable beyond 40 NM below 13,500′ MSL 345–070°, below 12,500′ MSL 070–090° acct reduced coverage.

ARKANSAS

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BAKER ARPT: Clsd for repairs.

GLENDALE RDO: Decomsng of RBn delayed until aprxly June 23.

LINDEN RDO: June 7, VORTAC wil be shutdown until aprxly June 16 for replacement of antenna.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline until aprxly July 1966.

PARKER RDO: TACAN portion of VORTAC will be shutdown May 18 until aprxly June 3, 1966 for antenna change.

PLACERVILLE ARPT: Rnwys 5–23 clsd until aprxly Aug 13, 1966. (2–17)

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

STOCKTON-METROPOLITAN ARPT: First 2000′ rnwy 29R clsd 1500–0200Z Mon–Fri.

TWENTYNINE PALMS ARPT: Rnwy lgts inop. (3–17)

COLORADO

CORTEZ, CORTEZ-MONTEZUMA COUNTY ARPT: Clsd UFN due constr.

GRAND JUNCTION, WALKER FLD TWR: Glide slope shutdown until aprxly June 23, 1966. (3–17)

LAKE CITY, V.C. AIRSTRIP: Closed winter months.

✓THATCHER, DILLINGHAM RANCH ARPT: Change arpt name to Big Canyon Tyron.

TRINDAD RDO: VHF/DF unusable beyond 40 nmi below 8000′ MSL 280–120°, 9000′ MSL 120–135°, 15,000′ MSL 135–175°, 17,500′ MSL 175–220°, 14,500′ 220–280° acct reduced coverage. (2–17)

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large

DELAWARE

WILMINGTON, GREATER WILMINGTON ARPT TWR: June 30, LMM will be decomsnd.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P-56. See Washington, D.C. chart under Special Notices-Area in Section III for location.

WASHINGTON NATL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying VIP or officers above rank of Major General or Rear Admiral (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C–140) (2) Sabreliner (T–39) (3) Morane Sauliner 760 (4) Jet Commander (Aero Commander) (4) Learjet Model 23 (Lear Jet Co.) (6) Hawker Siddley DH–125 (7) Fan Jet Falcon (8) Caravelle (9) DC–9 (10) BAC–111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. No Turbojet acft described in paragraph B (8) through (11) may be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda. Miami, Fla., Memphis, Tenn., Minneapol's, Minn.. Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: HAITI, private acft landing or overflying Haiti must furnish 48 hours advance notice and a flight plan must be filed. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

ST. PETERSBURG, ALBERT WHITTED ARPT: Effective June 1, part time control zone in effect 0600-2200 local time daily.

SANFORD NAS RDO: Rbn inop UFN.

TAMPA FSS: May 31, FSS will be relctd to St. Petersburg. Name to change to St. Petersburg and ident to be "PIE". All freqs and services will remain the same.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtd 80′ boom pile driver operg 1200′ N apch end rnwy 27 until aprxly Dec 1, 1966. (1–6)

GEORGIA

ATLANTA, DEKALB-PEACHTREE ARPT: Tmpry ctl twr transmitting and receiving on 121.3, 121.7 and receiving only on 122.5 until aprxly June 30. (1–20)

✓SAVANNAH, TRAVIS FLD TWR: ILS LMM decmsnd.

IDAHO

BOISE RDO: June 1, TACAN portion of VORTAC will be shutdown until aprxly June 10 for antenna replacement.

BURLEY RDO: May 18, TACAN portion of VORTAC will be shutdown until aprxly May 27.

McCALL ARPT: Rnwy and txwy lgts inop until aprxly June 1, 1966. (1–6)

POCATELLO MUNI ARPT: Rnwy 16–34 lgts inop UFN.

ILLINOIS

ALTON: Control zone effective May 26, within a 5 mi radius of the Civic Memorial Arpt (Lat 38°53′28″N, Long. 90°03′02″W) and within 2 mi each side of the 009° bearing the Civic Memorial Arpt extending from the 5 mi radius zone to 7 mi N of the arpt and within 2 mi each side of the 103° bearing fromthe Civic Memorial Arpt extending from the 5 mi radius zone to 8 miles east of the arpt from 0700–2300 hrs, local time daily.

CHICAGO–HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-O'HARE INTL TWR: MM component ILS rnwy 14L shutdown until aprxly Sept 15 for rnwy constr.

CHICAGO–O'HARE INTL ARPT: Constr on NW end of rnwy 14L–32R in progress until aprxly Oct 10.

INDIANA

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope rnwy 21 shutdown until Sept due rnwy constr.

INDIANAPOLIS: Effective May 14 through May 30, all acft in the vcnty of Indianapolis Motor Speedway shall maintain at least 2000′ above the gnd and at least 2 miles horizontal distance from the track boundary. All turns to be made to the left. Use extreme caution as blimp and specially authorized helicopters are expected to be operg in immediate proximity of the speedway during activities. Acft enroute this area are requested to cancel flgt plans with Indianapolis area radio when apchg Indianapolis. Acft to advise over which VOR or frequency a reply is expected. Communications can be established with Indianapolis area rdo through the following VORs: IND 116.3, OKK 109.8, MZZ 108.6, MIE 113.7, SHB 112.0 and BMG 110.2. FAA weather briefing and flt plan service at Shank Arpt and Weir Cook Arpt. Flgt plans may be cancelled by phone 244–3316.

✓SOUTH BEND, ST. JOSEPH COUNTY ARPT TWR: ILS LMM decmsnd.

IOWA

✓**IOWA:** ILS LMMs decmsnd at the following arpts: Des Moines Muni and Sioux City Muni.

WATERLOO MUNI ARPT TWR: June 1, ILS serving rnwy 12 will be shutdown UFN for relctn of lclzr.

KANSAS

✓**KANSAS:** May 27, ILS LMMs decmsnd at flwg arpts: Topeka, Philip Billard Muni and Wichita Muni.

GOODLAND MUNI ARPT: Rnwy 8–26 and 1000′ extension to SE end rnwy 13–31 clsd June 1.

OLATHE CITY ARPT: NW/SE rnwy clsd for repairs UFN.

KENTUCKY

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope and lclzr rnwy 29 shutdown intermittently.

NEW HOPE RDO: June 1, VOR will be shut down til aprxly June 4 for conversion to VORTAC.

LOUISIANA

NEW ORLEANS LAKE FRONT ARPT: Mound of sand N end of rnwy 35, 1200′ long 800′ wide. Rnwy 17 528′ tmpry displaced threshold until July 1.

NEW ORLEANS INTL ARPT (MOISANT FLD): Caution lndg rnwy 1, apch end aprxly 18 inches lower than rnwy level, rnwy length reduced to 6850′, 125′ drag line W of rnwy, until aprxly Aug 15.

MAINE

MAINE: The following airports are closed winter months: Enfield, Sylvan Lane; Eastport Muni, Jonesboro, Drisko's; Lubec.

BAR HARBOR ARPT: Rnwy 4–22 and S end rnwy 17–35 plowed 3400′ to intersection. (2–17)

BLUE HILL ARPT: Closed winter months. (12–23)

MILLINOCKET MUNI ARPT: Rnwy 16–34 suitable for ski operns only. Acft using rnwys 16–34 and 11–29 not visible to each other until apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4–22 and 15–33 not visible to each other until apchg intersection.

PRINCETON ARPT: Rnwy 6–24 not plowed winter months. (2–17)

ROCKLAND MUNI ARPT: No lgts available winter months. (2–17)

WATERVILLE, LAFLEUR ARPT: Rnwy 5 under constr until aprxly July 1, being extended on SW end.

YORK ARPT: Closed until April 1966. (1–6)

MARYLAND

BALTIMORE RDO: May 23, TACAN will be shutdown until aprxly May 28. May 24 VOR will be shutdown for aprxly 10 hours for TACAN mod.

CHURCHTON, DEEP CREEK ARPK: Closed until aprxly April 15. (3–17)

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200′.

TOWSON: 10′ balloon ascending 1000′ per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BEDFORD, LAURENCE G. HANSCOM FLD: Moored balloon 5 NM SW of fld, 3000′ AGL hoisted hourly during VFR conditions dalgt hrs. Cable marked with small balloons. (12–23)

MARTHA'S VINEYARD ARPT: Rnwy 1–19 not maintd winter months. (3–3)

ORANGE MUNI ARPT: Summer operns in efct Apr 1–Dec 15. Use paved areas only. All rnwys open.

MICHIGAN

DETROIT CITY ARPT TWR: Comsng of partial ILS delayed indefinitely.

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900′ smoke stack 3 mi NW.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58′00″N long 83°47′30″W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

LAKE MARGRETHE: Restricted area R–4202 will be effective June 3–July 2, 1966 and July 9–Aug 6, 1966.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000′ AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000′ AGL.

OWOSSO CITY ARPT: Obstn lgts inop on 210′ twr lctd 5 mi SE.

PULLMAN RDO: May 30, VORTAC will be shut down til aprxly June 8 for maintenance.

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500–1630 CST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)

TRAVERSE CITY MUNI ARPT: Rnwys clsd except rnwys 18–36 and 9–27. (3–17)

MINNESOTA

BEMJDJI MUNI ARPT: Rnwy 7–25 skiis only.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

MORA MUNI ARPT: Rnwy 11-29 clsd due constr until spring.

RED WING MUNI ARPT: Clsd for constr until aprxly July 1, 1966.

MISSISSIPPI

CROSBY MUNI ARPT: Rotating bcn inop UFN.

HATTIESBURG MUNI ARPT: Rnwys 13-31 and 8-26 clsd until June 1966.

JACKSON, THOMPSON FLD: Rnwy 15L-33R clsd 1530-2300Z daily for maint.

MISSOURI

✓MISSOURI: May 27, ILS LMMs decmsnd at flwg arpts: Joplin Muni, St. Joseph, Rosecrans Meml; St. Louis, Lamber-St. Louis and Springfield Muni.

ST. JOSEPH RDO: About June 6, VOR will be shut down til aprxly June 10 for mod.

MONTANA

BUTTE, SILVER BOW COUNTY ARPT: Rnwy lgts rnwy 2-20 inop until aprxly July 1966. (2-17)

DRUMMOND RDO: May 31 VOR will be shut down til aprxly June 30.

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

LIVINGSTON, MISSION FLD: First 1200′ rnwy 32 clsd until aprxly July 15, 1966.

MISSOULA COUNTY ARPT: Rnwy 7-25 E 2534′ clsd until aprxly July 1, 1966.

WEST YELLOWSTONE ARPT: Unattended and without lgtg.

NEBRASKA

COLUMBUS MUNI ARPT: Constr on 1000′ extension to NW end rnwy 14-32, NW 400′ of present rnwy tmprly clsd, usable length avbl 3600′.

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56′50″N, long 98°31′15″W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000′ AGL Mon-Fri 1400–2230Z until further notice.

✓LINCOLN MUNI/AFB ARPT TWR: ILS LMM decmsnd May 27.

NEVADA

LOVELOCK, DERBY FLD: One or two moored balloons 12′ in diameter in enshrouding parachute will be operating about 17 nmi W from 8AM to 9PM local standard time until March 31, 1967. Surface to 6700′ MSL or 2500′ above test site. Balloons equipped with red flashing lights at ngts.

NEW HAMPSHIRE

LANCASTER, GRABOR ARPT: Clsd UFN—constrn.

NEW JERSEY

MORRISTOWN MUNI ARPT: Rnwy 5-23 clsd SS-SR except departing pure jets UFN. (3-17)

OCEAN CITY MUNI ARPT: Open dalgt operns only. No refueling or other services available due constr UFN.

READINGTON, SOLBERG-HUNTERDON ARPT: Rnwys 1-28, 13-31, 14-32 and all grass areas closed.

NEW MEXICO

CARLSBAD: An abandoned arpt lctd adj to VOR bldg; strip dangerous—should not be used.

NEW YORK

HORNELL MUNI ARPT: Maintain 2500′ MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constrn N end rnwy.

NEW YORK JOHN F. KENNEDY INTL ARPT TWR: Glide slope serving rnwy 31R will be shutdown thru July 1 for arpt constr.

NEW YORK, LA GUARDIA ARPT: Due to constrn rnwy 13 take off length 5896′ rnwy 13 lndg length 5000′. Rnwy 31 tkof length 5000′ with displaced threshold 175′ NW, rnwy 31 lndg length 5813′. Rnwy 13-31 usable length subject to variations due to constr. Rnwy 4-22 usable length 7000′. Rnwy 4 lndgs and rnwy 22 departures clsd to all turbojet acft operns.

✓NORTHVILLE, PLATEAU SKY RANCH ARPT: Name changed to Edinburg, Plateau Sky Ranch Arpt.

OLD FORGE ARPT: Closed winter months.

WHITE PLAINS, WESTCHESTER COUNTY ARPT: Apch lgtg sys with sequenced flashg lgts (rnwy 16) shortened to 1730′ until aprxly May 15, due reconstrn outer portion.

NORTH CAROLINA

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500′ pattern from the west.

✓GREENSBORO, HIGH POINT/WINSTON-SALEM ARPT: ILS LMM decmsnd.

NORTH DAKOTA

MINOT, FLYING S RANCH ARPT: Bcn and rnwy lgts inop til spring.

NEWTOWN ARPT: New arpt clsd; under constr.

WASHBURN MUNI ARPT: All lgtg facils inop.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constrn SE end rnwy 5 until fall 1966.

COLUMBUS, PORT COLUMBUS ARPT: RVR rnwys 10L and 28R inop UFN.

DAYTON RDO: VORTAC shut down until aprxly May 27.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400-2300 UFN.

OKLAHOMA

NORMAN, WESTHEIMER FLD: Bcn inop until aprxly June 1. (3-17)

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: Rnwy 17L-35R clsd all operns. (3-17)

TAHLEQUAH MUNI ARPT: Rnwy 17 being extended 1000' with 500' grass overrun. Completion aprxly Jun 1.

TIPTON ARPT: Rnwy 8-26 clsd for rnwy constr until aprxly May 30. (3-17)

OREGON

NORTH BEND ARPT: About 12 nmi NNE a moored aluminum colored V shaped balloon 75' long, approximately 40' diameter being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

PENNSYLVANIA

ALTONA RDO: May 31, VORTAC will be shut down til aprxly Jun 10—major repairs.

CONNELLSVILLE ARPT: No fuel UFN. Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

MONOGAHELA, THOMPSON MEML ARPT: Clsd until aprxly Sept. 1966 due constr.

PERKASIE, PHILADELPHIA GLIDER PORT: Extensive soaring activities, Mid-Atlantic Soaring Meet, May 28 to June 1. Fld clsd to transient acft.

PITTSBURGH, GREATER PITTSBURGH ARPT TWR: ILS rnwy 28L shut down til aprxly July 20 due construction arpt.

PUNXSUTAWNEY MUNI ARPT: E/W rnwy clsd for construction til aprxly June.

READING, GENERAL SPAATZ FLD: June 2, 3, and 4, tmpry ATIS on lclzr freq 109.5 mc in use 0700-1700E. Lndg acft requested to tune to freq 25 mi out.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000' from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.-Thornhurst-Wilkes-Barre.

YORK ARPT: Auto racing rnwy 16-34 Sats 1500-2400 lcl time til Sept 24. Unicom ctc required to clear rnwy.

SOUTH CAROLINA

✓CHARLESTON AFB/MUNI ARPT TWR: ILS LMM decmsnd May 1.

SOUTH DAKOTA

BRITTON MUNI ARPT: Arpt clsd for rnwy constrn until aprxly Aug 1.

TENNESSEE

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constrn.

TEXAS

BEEVILLE, CHASE (NAAS) FLD: Rnwy 13R-31L clsd til aprxly Oct due constrn.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200' MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13-31 clsd.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

DALLAS, REDBIRD ARPT: First 650' rnwy 13 clsd due consrn til aprxly June 1, remaining 3800' usable.

FORT WORTH, GRTR SOUTHWEST INTL ARPT DALLAS-FORT WORTH FLD: ASR service avbl excp for apchs to rnwys 13-31, 17-35 til aprxly June 1. VHF/DF inop til aprxly Jun 1.

GREENVILLE, MAJORS ARPT: Rnwy 8-26 clsd to all operns until aprxly June 1966.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1-19 clsd til aprxly Jul 1.

MIDLAND ARPK: Rnwy 7 threshold displaced 434' for lndg rnwy 11 threshold displaced 662' for lndg.

PALESTINE MUNI ARPT: Tethered balloon operg SR-SS within grounds of National Scientific Balloon Flight Station at 525' AGL til aprxly July.

QUITMAN RDO: VOR shut down til aprxly Jun 16. Tmpry Rbn on freq 257 kc avbl during shutdown.

UTAH

DELTA MUNI ARPT: Rnwy 16-34 clsd til aprxly mid Aug due resurfacing.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

✓HANKSVILLE FSS: May 26 will be decomsnd. Cedar City FSS is control point.

SALT LAKE CITY: Restricted Area R-6412 activated June 5 thru June 19. Ctlg facility Salt Lake City Tower.

✓SALT LAKE CITY MUNI NO. 1 ARPT: ILS LMM decmsnd.

VERMONT

VERMONT: The flwg arpts will be plowed and open winter months: Enosburg Falls, Newport and St. Johnsbury Muni.

BLACKSBURG, VPI ARPT: New NW/SE rnwy under constrn til aprxly Fall 1966. Proposed dimension 4200 x 100'.

DUBLIN, NEW RIVER VALLEY ARPT: First 200' rnwy 23 unusable due rnwy extension in progress UFN.

VIRGINIA

NEWPORT NEWS, PATRICK HENRY ARPT TWR: May 31, ILS will be shutdown until aprxly June 2.

WASHINGTON

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800-1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

WENATCHEE, PANGBORN ARPT: Major constr UFN. Ctc FSS for details concerning usable portion of fld. Rnwy 11-29 clsd.

CHARLESTON RDO: May 31, TACAN will be shut down til aprxly June 5; VOR will be shut down May 31 for 10 hrs due TACAN mod.

ELKINS RDO: June 6, TACAN will be shut down til aprxly June 11; VOR will be shut down June 7 for 10 hrs due TACAN mod.

WISCONSIN

CAMP GUERNSEY: Restricted Area R-7001 in use May 21 and 22; June 6 thru 19 and July 9 and 10. 0400-2400 MST from surface to 2350'. Ctc Casper Rdo for release info during this period.

MILWAUKEE, GENERAL MITCHELL FLD: Rnwy 13-31 clsd acft over 30,000 lbs til aprxly June 16. Loose pieces pavement 4000' from apch end rnwy 13.

SPOONER MUNI ARPT: Clsd.

WYOMING

JACKSON RDO: VOR comsng delayed til aprxly May 26.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

PUERTO RICO

SAN JUAN ISLA GRANDE ARPT: Arpt bcn inop til aprxly June 15 due relctn structure.

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

OHIO STATE UNIVERSITY
JUN 21 1966
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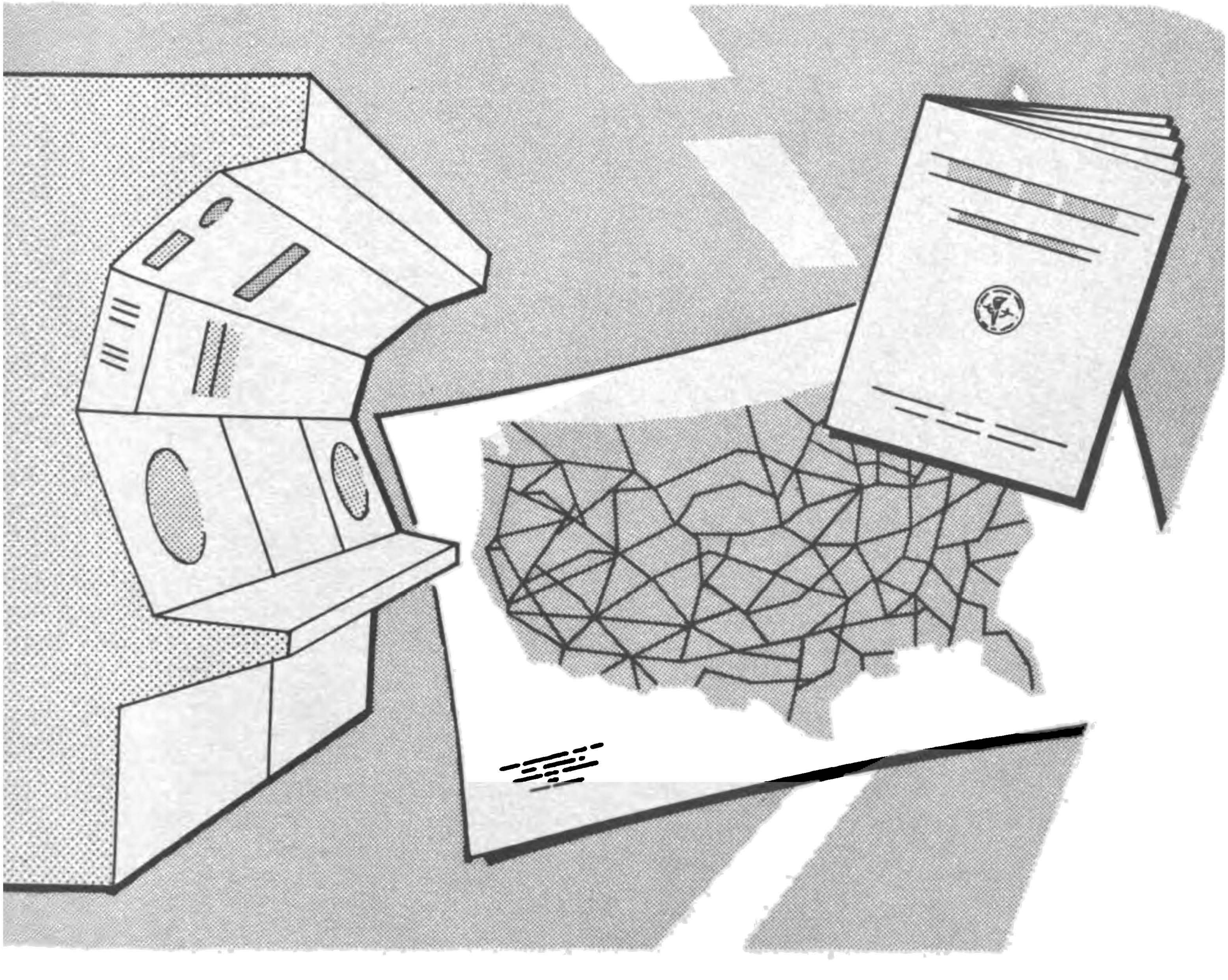
PART 3



Effective
23 JUNE 1966
To 21 JULY 1966

OPERATIONAL DATA AND NOTICES TO AIRMEN

TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

Abbreviations ---------- 3-iv
Address, Change of (See Notice of Editor) ---------- 3-57
Airport/Facility Directory Legend ---------- 3-vii
Airport/Facility Directory ---------- 3-1
Airports, New and Permanently Closed ---------- 3-127
Air Route Traffic Control Center Communications Frequency ---------- 3-45
Boeing Low Level IFR Operations ---------- 3-130
Chicago Terminal Area Chart ---------- 3-122
Dates of Latest Editions ---------- 3-152
Expanded Radar Service for Arriving and Departing Flights ---------- 3-125
Flight Information Publication Policy ---------- 3-103
FSS and Weather Bureau Telephone Numbers ---------- 3-47
Low Altitude VFR Military Operations ---------- 3-130
Master Alphabetical Index ---------- 3-i
Military Aerial Refueling Tracks ---------- 3-129
Notices to Airmen ---------- See Part 3-A
Notice to Editor ---------- 3-57
Oil Burner Routes ---------- 3-132
Parachute Jumping Areas ---------- 3-60
Part-time Controlled Airspace Designation ---------- 3-106
Part-time Manned Facilities and AIDS ---------- 3-107
Preferred Routes ---------- 3-66
Publication Schedule ---------- 3-59
Radio Class Designation ---------- 3-x
Restrictions to Enroute Navigation Aids ---------- 3-88
Runway Gradient ---------- 3-108
Sectional Chart Bulletin ---------- 3-81
Simultaneous Opposite Direction Operations on Parallel Runways ---------- 3-105
Special Notices ---------- 3-103
    General (Notices with universal application) ---------- 3-103
    Area Notices (by state, city, etc.) ---------- 3-109
Special Use Airspace ---------- 3-129
Standard Instrument Approach Procedures Actions ---------- 3-150
Standard Instrument Departures (SIDs) ---------- 3-73
Substitute Route Structure ---------- 3-76
VOR Receiver Check Points ---------- 3-95

AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately. Highlights of each part are described below.

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Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

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Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT—430, Washington, D.C. 20553.

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetic Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. The Part number is in bold type.

A

Part and Page

Abbreviations 3–iv
Address, Change of (See Notice to Editor) 3–59
ADIZ and Designation Mountainous Areas Chart 1–85
ADIZ Procedures 1–83
Advisory Information, VFR 1–72
Advisory Service, Jet 1–58
Aeronautical Advisory Stations (UNICOM) 1–74
Aeronautical (Light) Beacons 1–17
Aeronautical charts, Dates of Latest 3–152
Aeronautical Information and the National Airspace System 1–24
Aeronautical Multicom Service 1–74
Aeronautical Publications 1–48
Aeronautical Terms, Glossary of 1– 1
(AID), Airport Information Desk 3–107
AIM Publication Schedule 3–59
Aircraft Call Signs 1–21
Aircraft Fuel 2, 3
Aircraft Storage/Repair 2, 3
AIRMETS and SIGMETS 1–32
Air Navigation Radio Aids 1– 7
Airport Advisory Service (Non-Radar) 1–72
Airport, Air Navigation Lighting and Marking Aids 1–17
Airport Directory 2–1
Airport Elevation 2, 3
Airport/Facility Directory 3– 1
Airport Identifying Code 1–18
Airport, IFR 2 & 3
Airport Information Desk (AID) 3–107
Airport, Lighted Land 1–17
Airport, Lighted Water 1–17
Airport Lighting Facilities 1–17, 2 & 3
Airport Marking Aids 1–19
Airport, Military (Lighting) 1–18
Airports of Entry 1–81, 2 & 3
Airport Runway Data 2, 3
Airports, New and Permanently Closed 3–127
Air Rescue Centers 1–91
Air Traffic Control Radar Beacon System (ATCRBS) 1–16, 1–62
Airway Beacons 1–18
Airway/Route Systems 1–57
Airway/Route Course Changes 1–58
Alcohol 1–41
Altimetry 1–30
Altitudes, Traffic Pattern 2
Alphabet, Phonetic 1–23
Approach Control 1–74
Approach Light System, Instrument 1–18
Approach Procedures Actions, Instrument 3–150
Area Notices 3–109
Arrival 1–72
ARTCC Communications Frequencies 3–45
ATC Clearance 1–54

Part and Page

(ATIS) Automatic Terminal Information Service 1–72, 3
Auxiliary Lights 1–17

B

Beacon, Airway 1–18
Beacon, Aeronautical (Light) 1–17
Beacon, Marker 1–10
Beacon Operation, Daylight 1–18
Beacon, Radio 1– 7
Beacon, Rotating 1–17
Beacon, Standards (deviations from) 1–18
Bird Hazards 1–44
Broadcast Stations, Commercial 2–225
Bulletin, Section Chart 3–81

C

Call Signs, Aircraft 1–21
Call Signs, Ground Stations 1–21
Carbon Monoxide 1–42
Ceiling 1–1, 1–33
Change of Address (Notice to Editors) 3–57
Changeover Points (VOR) 1–64
Chart Bulletin, Sectional 3–81
Charts, Dates of Latest Prints 3–152
Chart, Oil Burner Route 3–132
Chart, ADIZ and Mountainous Area 1–85
Civil Use of Military Fields 3–104
Clear Air Turbulance 1–33
Clearance, ATC 1–54
Climbing/Descending Aircraft 1–65
Cloud Heights, Reporting of 1–33
Code, NOTAM 1–25
Collision Reporting, Near Mid-Air 1–40
Commercial Broadcast Stations 2–225
Communications, Direct Pilot/Controller 1–69
Communications, Enroute 1–66
Communications Failure 1–92
Communications Frequencies, ARTCC 3–45
Compass Locator, ILS 1–11
Composite Flight Plan (VFR/IFR) 1–49
Consolan 1–14
Contact Procedure, Radio Telephone 1–21
Continental Control Area 1–58
Crash Locator Beacon 1–90
Cruising Altitudes, Enroute 1–71

D

Departure 1–53
Departure Communications 1–53
Departure Control 1–56
Departure, Standard Instrument (SID) 1–55, 3–75
Designated Mountainous Areas chart and ADIZ 1–85
Designation, Radio Class 3–x
Detouring Thunderstorms 1–36
Direct Communications, Controllers/Pilots 1–69
Direct Flights 1–51
Direction Finder (VHF/UHF) 1–14

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page
Directional Reporting 1-64
Distance Measuring Equipment (DME) 1- 8
Drugs 1-41

E
Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1- 89
Emergency Signals (Visual) 1-96
Enroute 1-57
Enroute Communications 1-66
Enroute Cruising Altitudes 1-71
Entry and Departure Requirements, U.S. 1-80
Expanded Radar Service for Arriving and Departing Flights 1-73, 1-127

F
FAA and NORAD Chart 1-88
Fatigue 1-41
Figures 1-22
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-103
Flight Information Publication Policy 3-103
Flight Service Stations/Weather Bureau Offices 3-47
Flight Standard District Offices 1-97
Frequency Pairing Plan 1- 9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-93

G
General Notices 3-103
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1- 1
Good Operating Practices 1- 5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H
Hand Signals 1-79
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-217
Holding 1-60
Hypoxia 1-41

I
IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-75
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-150
Instrument Departures (SID's), Standard 1-55, 3-75
Instrument Runway 1-20
Interception Pattern for Identification of Transport Aircraft 1-87
Interception Signals, U.S. 1-86

J
Jet Advisory Service 1-58

K
Key to Aviation Weather Reports 1-36

Part and Page
L
Lake, Island and Mountain Reporting Service 1-66
Landing 1-78
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-78
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-130

M
Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-79
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-129
Mountainous Area Chart and ADIZ 1-85

N
National Search and Rescue Plan 1-90
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-127
NORAD Chart, FAA and 1-88
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-57
Notices, Area 3-109
Notices, Special 3-109
Notices to Airmen 3A

O
Oil Burner Routes 3-132
Omnidirectional Range (VOR) 1-7
Operational Limitations VOR/VORTAC/TACAN 1- 9

P
Panic 1-43
Parachute Jumping Areas 3-60
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-106
Part-time Manned Facilities and AIDS 3-107
Permanently Closed Airports, New and 3-129
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-66
Positive Control Area 1-58
Precision Approach, Radar 1-15
Preferred Routes 3-66
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-103
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-59

R
Radar 1-15
Radar Assistance to VFR Aircraft 1-65
Radar Beacon System (ATCRBS) 1-62
Radar Controlled Approaches 1-15
Radar Enroute Service 1-59
Radar Monitoring of Instrument Approaches 1-76
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-12, 1-73
Radio Beacon 1- 7
Radio Class Designation 3-x
Radio Communications Failure 1-92

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radio Interference 1-14
Radio Range L/MF 1- 7
Radiotelephone Phraseology and Techniques 1-21
Receiver Check Points, VOR 1-8, 3-97
Refueling Tracks, Military Low Altitude Aerial 3-131
REIL, Runway End Identifiers 1-19, 2, 3
Repair, Aircraft 2, 3
Reporting, Directional 1-64
Reporting Service, Lake, Island and Mountain 1-66
Restricted Airspace 1-65
Restrictions to Enroute Navigation Aids 3-88
Rocky Mountain Reporting Service 1-68
Rotating Beacon 1-17
Runway End Identifiers (REIL) 1-19, 2, 3
Runway, Longest 2, 3
Runway Marking 1-19
Runway Surface 2, 3
Runway Visibility (RVV) 1-34
Runway Visual Range (RVR) 1-34
Runway Weight Bearing Capacity 2, 3

S

Safety of Flight (Wake Turbulence) 1-37
SCANTANA Procedures 1-83
Scheduled Weather Broadcasts 1-31
Scuba Diving 1-43
Seaplane Bases 2-212
Search and Rescue 1-90
Sectional Chart Bulletin 3-81
Sectional Charts, Dates of latest prints 3-152
SIDs (Standard Instrument Departures) 1-55, 3-73
SIGMET (Significant Meteorology), AIRMETS 1-32
Signals, Emergency 1-95
Signals, (Visual), **Emergency** 1-96
Signals, Light 1-53
Simultaneous Voice Transmissions from a
  Single Location 1-12
Special Notices 3-103
Special Use Airspace 1-70, 3-129
Special VFR Flight Clearance Procedures 1-54
Speed Adjustment of Arriving Aircraft 1-77
Standard Instrument Approach Procedures
  Actions 3-150
Standard Instrument Departures (SIDs) 1-55, 3-73
Storage, Aircraft 2, 3
Substitute Route Structure 3-76
Surveillance Radar 1-15

Part and Page

T

TACAN 1- 8
Terminal Radar Service 1-74
Thunderstorms 1-36
Time 1-22
Traffic Information Service, Radar 1-73
Traffic Pattern Altitudes 2
Traffic Pattern Direction, Landing 1-78
Transcribed Weather Broadcasts 1-31
Turbulence, Clear Air (CAT) 1-33
Turbulence, Wake 1-37
Two-Way Radio Communications Failure 1-92

U

UNICOM (Aeronautical Advisory Station) .... 1-74, 2, & 3
U.S. Entry and Departure Requirements 1-80

V

VASI (Visual Approach Slope Indicator) 1-19
Vertigo 1-42
VFR Advisory Information 1-72
VFR Conditions on Top 1-51
VFR Flight Clearance Procedures 1-55
VHF UHF Direction Finder 1-14, 3
Visibility, Observations 1-34
Vision 1-42
Visual Approach Slope Indicator (VASI) 1-19
VOR 1- 7
VOR Changeover Points 1-64
VOR Receiver Check Points 1-8, 3-95
VORTAC 1- 8
VOT (VOR Test Signal) 1-8, 3

W

Wake Turbulence 1-37
Warning Areas 1-70
Weather 1-31
Weather Briefing 1-49
Weather Broadcasts Format 1-32
Weather Broadcast, Scheduled 1-31
Weather Broadcast, Transcribed 1-31
Weather Broadcast, Unscheduled 1-32
Weather Bureau Offices/Flight Service Stations 3-47
Weather Radar 1-34
Weather Advisories, In-Flight 1-32

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in addition to frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense VFR Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	groundcontrolled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend from Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical raditors), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum en-route IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

ABBREVIATIONS

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmission.
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omni-directional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omni-directional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (−) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, clay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S–000).

S–Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC–3), etc.
T–Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC–6), etc.
TT–Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T–).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

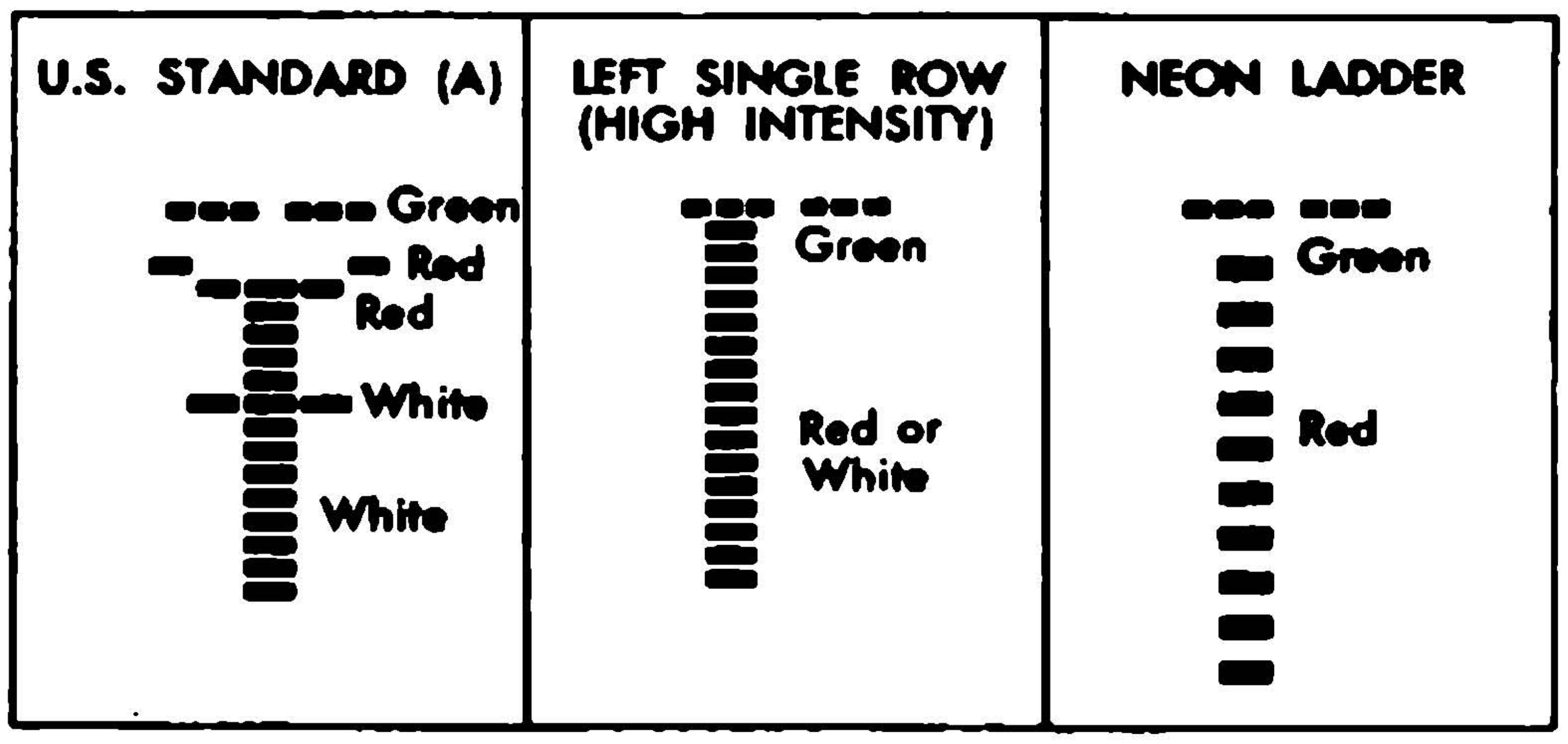
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting (when code **L4–7** is indicated, lighting **4, 5, 6, 7** is available). An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000′ out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)
13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	80 oct., at least.
F2	80/87 oct., or lower.
F3	91/96 oct., or lower.
F4	100/130 performance rating, or lower.
F5	115/145 performance rating, or lower.

TURBINE FUELS

TP–1	650 turbine fuels for civil jets.
JP–1	(Kerosene), **JP–3, JP–4, JP–5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25–September 26 and April 25–October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.
VASI—Visual Approach Slope Indicator, applicable runway provided.
RVV—Runway visibility, applicable runway provided.
RVR—Runway Visual Range, applicable runway provided.
FSS—The name of the controlling FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481-5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"FEE" indicates landing charges for private or nonrevenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"Rgt tfc 13–31" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a crossout: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

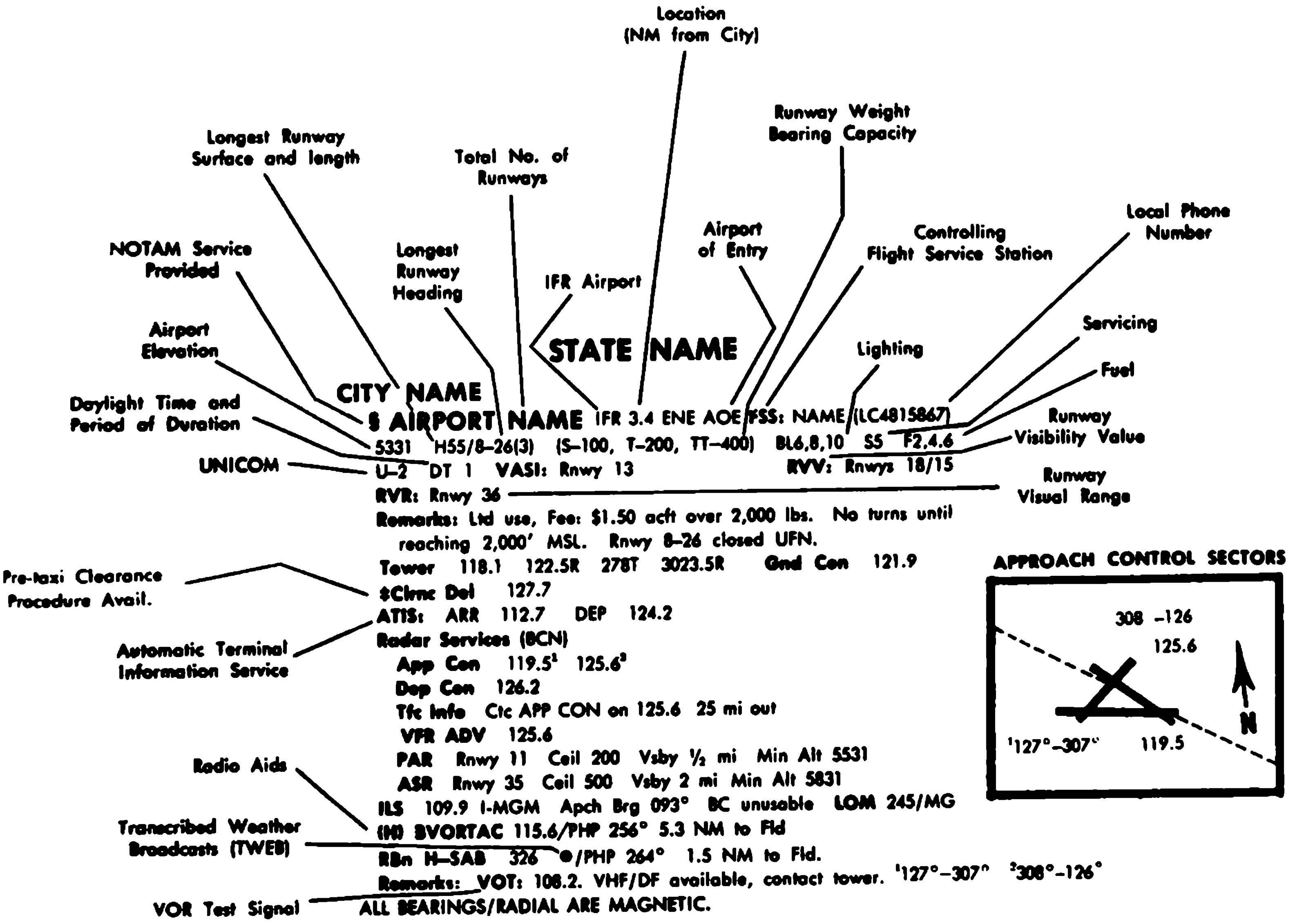
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U–1—122.8 mc (at airports without a control tower).

U–2—123.0 mc (at airports with a control tower). tower).

SAMPLE


Location (NM from City)
Runway Weight Bearing Capacity
Longest Runway Surface and length
Total No. of Runways
Local Phone Number
Airport of Entry
Controlling Flight Service Station
NOTAM Service Provided
Longest Runway Heading
IFR Airport
Servicing
Airport Elevation
Lighting
Fuel
Daylight Time and Period of Duration
Runway Visibility Value
UNICOM
Runway Visual Range
Pre-taxi Clearance Procedure Avail.
APPROACH CONTROL SECTORS
308 –126
125.6
N
'127°–307°
119.5
Automatic Terminal Information Service
Radio Aids
Transcribed Weather Broadcasts (TWEB)
VOR Test Signal

STATE NAME

CITY NAME

$ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC4815867)
5331 H55/8–26(3) (S–100, T–200, TT–400) BL6,8,10 S5 F2,4.6
U–2 DT 1 VASI: Rnwy 13 RVV: Rnwys 18/15
RVR: Rnwy 36
Remarks: Ltd use, Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000' MSL. Rnwy 8–26 closed UFN.
Tower 118.1 122.5R 278T 3023.5R Gnd Con 121.9
$Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
App Con 119.5^1 125.6^2
Dep Con 126.2
Tfc Info Ctc APP CON on 125.6 25 mi out
VFR ADV 125.6
PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° BC unusable LOM 245/MG
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H–SAB 326 ●/PHP 264° 1.5 NM to Fld.
Remarks: VOT: 108.2. VHF/DF available, contact tower. ^{1}127°–307° ^{2}308°–126°
ALL BEARINGS/RADIAL ARE MAGNETIC.

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000′ MSL	115.2 smi (100 nmi)
L	Up to 18,000′ MSL	46.06 smi (40 nmi)
T	Up to 12,000′ MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

NOTE: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiators), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600–2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

ALABAMA

ANNISTON (L) BVOR 108.8/ANB **FSS:** ANNISTON
RBn BMH [1]278/ANB
Remarks: [1]For use within 10 mi stn ADF apch only.

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§BIRMINGHAM MUNI *IFR* 4NE **FSS:** BIRMINGHAM on fld
643 H92/5–23(2) (S–120, T–170, TT–300) BL6,8A,9,10 S5 F5, JPl, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Jet barrier on overrun rnwy 23. Rnwy threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I–BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) BVORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H–SAB 224●/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H–SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM **FSS:** MOBILE

BROOKWOOD (L) BVOR 111.0/BWA **FSS:** BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU **FSS:** HUNTSVILLE

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§DOTHAN *IFR* 7NW **FSS:** DOTHAN on fld
395 H56/18–36(3) (S–60, T–105, TT–190) BL6 S5 F4 U–1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
VFR ADV: Ctc Cairns APP/DEP CON
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF ctc FSS.

EUFAULA (L) BVOR 109.2/EUF **FSS:** DOTHAN

GADSDEN (L) BVORTAC 112.3/GAD **FSS:** ANNISTON

HAMILTON (L) BVOR 110.4/HAB **FSS:** MUSCLE SHOALS

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§HUNTSVILLE-MADISON *IFR* 3S **FSS:** MUSCLE SHOALS (DL)
619 H52/18–36 (2) (S–50, T–85, TT–130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I–HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF **FSS:** MONTGOMERY

MOBILE
§BATES FLD *IFR* 9W **FSS:** MOBILE on Fld
217 H78/14–32(3) (S–40, T–150, TT–280) BL4,6,8A,9 S5 F5 JP1, U2 **RVV** Rnwy 14
Remarks: Threshold displaced 1000′ NW runwy 32
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I–MOB Apch Brg 141° BC unusable **LOM:** 248/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn BH 248/MO 140° 4.6NM to fld.
Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090–110° rad. LOM is BH.

ALABAMA—*Continued*

MONROEVILLE **FSS:** MOBILE
(L) BVOR 116.8/MVC

MONTGOMERY
§DANNELLY FLD *IFR* 6SW **FSS:** MONTGOMERY on Fld
221 H90/9–27(3) (S–120, T–170), TT–300) BL4,6,8A,9 S5 F5 JP1 U2 **RVR:** Rnwy 9
Remarks: J–Bar runwy 9–27. Closed to acft heavier than Super G Constellation and DC–7 regardless of wt displacement per wheel.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I–MGM Apch Brg 093° **LOM** 245/MG
VHF/DF ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL **FSS:** MUSCLE SHOALS

REDSTONE (L) VOR 111.2/HUA **FSS:** MUSCLE SHOALS
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM **FSS:** MONTGOMERY

TALLADEGA (L) BVOR 108.4/TAG **FSS:** ANNISTON

TUSCALOOSA (L) BVORTAC 117.8/TCL **FSS:** TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE **FSS:** MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK **FSS:** PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG **FSS:** PHOENIX

COCHISE (L) BVORTAC 110.4/CIE **FSS:** DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG **FSS:** DOUGLAS

GILA BEND (H) BVORTAC 116.6/GBN **FSS:** PHOENIX

LIBBY (L) VOR 111.6/FHU **FSS:** DOUGLAS

PEACH SPRINGS (H) BVORTAC 112.0/PGS **FSS:** PRESCOTT

PHOENIX
§SKY HARBOR MUNI *IFR* 3E **FSS:** PHOENIX on Fld
1122 H103/8R–26L(2) (S–100, T–200, TT–370) BL4,10 S5 F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R–26L avbl ngts.
Phoenix Tower 118.7 122.5R 120.9 **Gnd Con** 121.9
Clrnc Del 120.4
Phoenix App Con 118.1 122.5R 115.6T
Phoenix (H) BVORTAC 115.6/PHX 256° 5.3NM to fld.
Phoenix RBn BHZ 326/PHX 264° 1.5NM to fld.
VHF/DF: ctc FSS.
Remarks: **VOT:** 109.0

PRESCOTT (H) BVORTAC 114.1/PRC **FSS:** PRESCOTT

ST. JOHNS (H) BVORTAC 112.3/SJN **FSS:** ZUNI

SAN SIMON (H) BVORTAC 115.4/SSO **FSS:** DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC **FSS:** PRESCOTT

ARIZONA—*Continued*

§TUCSON INTL *IFR* 6S AOE **FSS:** TUCSON on Fld
2630 H120/12L-30R(3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2
Remarks: 5649′ avbl lndg rnwy 3, 6000′ avbl rnwy 21. Jet arresting gear rnwy 12L-30R. 1000′ overrun each end rnwy 12L-30R.
Tower: 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.5 134.1 126.2 125.9 125.1 122.5R
Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.
VHF/DF ctc FSS.
(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.
RBn H-SABZ 338●/TUS 083° 10.6NM to fld.

WINSLOW (H) BVORTAC 112.6/INW **FSS:** PRESCOTT
RBn H-SAB 266●/INW

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§YUMA MCAS/INTL *IFR* 3S AOE **FSS:** YUMA on Fld
213 H133 (3L-21R)(4) (S-103, T-225, TT-410) BL4,6 S5 F4
Remarks: Rnwy 17-35 GWT (S-170, T-200, TT-400). Jet arresting gear rnwys 3L-21R, 3R-21L.
Tower 126.2 121.5 122.5R 119.3 **Gnd Con:** 121.9
VHF/DF ctc twr.
(H) BVORTAC 116.8/YUM 167° 6.0NM to fld. .
RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH
RBn HW 311/BYH

BRUINS RBn MHW 215/BSA **FSS:** MEMPHIS

CABOT (L) VOR 108.4/CBT **FSS:** LITTLE ROCK
RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT **FSS:** EL DORADO

DRAKE (T) BVOR 108.8/DAK **FSS:** FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD **FSS:** EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV **FSS:** FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP **FSS:** HARRISON

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§FORT SMITH MUNI *IFR* 4SE **FSS:** FORT SMITH on Fld
468 H80/7-25(2) (S-90, T-120, TT-) BL4,6,8A,9 S5
F-5, JP-1 U2 **RVV:** Rnwy 25
Remarks: Jet barrier rnwy 7-25.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 125.4 126.2 118.3 110.4T 109.5T 311T
ILS 109.5 I-FSM Apch Brg 254° BC unusable **LOM:** 223/FS
(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.
RBn BMH 311/FSM 161° 9.8NM to fld.
RBn HW 223/FS 254° 6.9NM to fld.
Remarks: LOM is HW.

HARRISON (L) BVOR 110.8/HRO **FSS:** HARRISON

HOT SPRINGS
§MEMORIAL FLD *IFR* 3SW **FSS:** PINE BLUFF (LC NA 4-4481)
535 H50/5-23(2) (S-35, T-49, TT-78) BL4 S5 F4
Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7
Hot Springs App Con 120.3 122.5R 110.0T 248T
Hot Springs (L) VOR 110.0/HOT on fld.
Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK
§ADAMS FLD *IFR* 2E **FSS:** PINE BLUFF (LC FR 6-4348)
257 H70/4-22(3) (S-49, T-173, TT-136) BL4,6,8A,9 S5
F4, JP1, JP4 U2 **RVV:** Rnwy 4
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T

ARKANSAS—*Continued*

Little Rock Dep Con 118.1
Tfc Info All inbnd acft ctc App Con 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I-LIT Apch Brg 041° **LOM:** 219/LI
Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.
Little Rock RBn BH 353/LIT 316° 3.3NM to rnwy 32.
Remarks: [1]001-180° [2]181-360°.

MONTICELLO (L) BVORTAC 111.6/MON **FSS:** PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF **FSS:** PINE BLUFF

ROGERS RBn MHW 263/ROG **FSS:** FAYETTEVILLE

STUTTGART RBn MHW 269/SGT **FSS:** PINE BLUFF
Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK **FSS:** TEXARKANA
RBn SABH 329●/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG **FSS:** WALNUT RIDGE

CALIFORNIA

ARCATA
§ARCATA-EUREKA *IFR* 7NW **FSS:** ARCATA on Fld
217 H60(2)(13-31) (S-90, T-140, TT-260) BL5,6,8A,9,10 F4 DT2
VASI: Rnwy 13 **RVV:** Rnwy 31
Remarks: Rgt tfc rnwys 13, 19.
VHF/DF ctc FSS.
ILS 109.5 I-ACV Apch Brg 314° BC unusable **LMM:** 233/CV
Remarks: SLMM unusable btn 120-150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE **FSS:** PASO ROBLES

BAKERSFIELD
§MEADOWS FIELD *IFR* 4NW **FSS:** BAKERSFIELD on Fld
488 H57/12L-30R(2) (S-110, T-170, TT-300) BL4,6,8A,9
S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R
Tower 118.1 122.5R **Gnd Con** 121.9
Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8
ILS 109.9 I-BFL Apch Brg 299° **LOM:** 278/BF
VHF/DF ctc FSS.
Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR **FSS:** SALINAS

BLYTHE (H) BVORTAC 117.4/BLH **FSS:** BLYTHE
RBn SABH 251●/BLH

BURBANK
§LOCKHEED AIR TERMINAL *IFR* 3NW **FSS:** LOS ANGELES (DL)
775 H69 (15-33)(2) (S-80, T-150, TT-280) BL5,6,8A,9,11
S5 F5, JP1, JP4 U2 DT2 **REIL** rnwy 15
Remarks: Rnwy 15 displaced threshold 900′. S 6060′ avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ lndg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
Burbank Tower 118.7 122.7R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
Tfc Info Ctc Burbank App Con 30 NM out on 120.9.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS [2]109.5 I-BUR Apch Brg 076° **LOM:** 272/BU
VHF/DF[1] contact Tower.
Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°-085°; below 4000′ 085°-240°; below 6000′ 240°-320°; below 10,000′ 320-360°. [2]Glide slope unusable below 1075′ MSL.

CAMARILLO RBn HW 359/CAV **FSS:** LOS ANGELES

CALIFORNIA—*Continued*

CASTLE (L) VOR[1] 114.2/MER
RBn MHW 409/ME
Remarks: [1]Inoperative.

CHICO (T) BVOR 109.8/CIC **FSS:** RED BLUFF

COLTON RBn HWZ 397/SB **FSS:** ONTARIO

CONCORD
§BUCHANAN FIELD *IFR* 1N **FSS:** OAKLAND (DL)
19 H50/1–19(3) (S–60, T–80, TT–130) BL5 S5 DT2 F4
Tower[1] 119.7 122.4R **Gnd Con** 121.9
Radar Services:
Travis App Con 119.9
T–BVOR 110.6/CCR 171° 3.1 NM to fld.
Remarks: [1]Oper 1500–0700Z.

CRESCENT CITY (L) BVOR 109.0/CEC **FSS:** CRESCENT CITY
Remarks: Class to be changed to (L) BVORTAC July 14, 1966.

DAGGETT (L) BVORTAC 113.2/DAG **FSS:** DAGGETT

DOWNEY RBn HW 371/DOW **FSS:** LOS ANGELES

EDWARDS (L) VORW 116.4/EDW
RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ
RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW **FSS:** BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM **FSS:** LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS **FSS:** MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT **FSS:** ARCATA

§FRESNO AIR TERMINAL *IFR* 5 NE **FSS:** FRESNO on Fld
332 H92/11L–29R(3) (S–50, T–70, TT–140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.
Remarks: Rgt tfc rnwy 7 & 11. Jet barrier arresting gear 11L–29R.
Tower 118.7 126.2 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.6 126.9
Dep Con 126.9
ILS 110.3 I–FAT Apch Brg 289° **LOM:** 266/FA
VHF/DF ctc FSS.
(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.
RBn H–SAB 344●/FAT 049° 6.2 NM to fld.

§FRESNO–CHANDLER *IFR* 2W **FSS:** FRESNO (DL)
283 H35/11R–29L(2) (S–17 T–TT–) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 11R. Rnwy 29L displaced threshold 730′ NW, rnwy 11R displaced 495′ SE.
Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7
Radar Services: (BCN)
Fresno App Con 119.6 126.9
Fresno Dep Con 126.9
Remarks: [1]Oper 1400–0600Z.

FRIANT (L) BVORTAC 115.6/FRA **FSS:** FRESNO

§FULLERTON MUNI *IFR* 3W **FSS:** LOS ANGELES (DL)
96 H31/6–24(1) (S–8, T–, TT–) BL5,11 S5 F4 U2 DT2
REIL: Rnwy 24.
Remarks: Rnwy 6 displaced threshold 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 displaced threshold 263′ W. 2857′ avbl lndg rnwy 24. Rnwy 24 apch restricted by poleline. Rgt tfc rnwy 24. Entry alt 1200′ MSL.
Tower[1] 119.1 122.6R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
Remarks: [1]Oper 1400–0600Z.

CALIFORNIA—*Continued*

GAVIOTA (L) BVORTAC 116.5/GVO **FSS:** SANTA BARBARA

GEORGE (L) VOR 108.6/VCV **FSS:** PALMDALE

GLENDALE RBn MHW 341/GCE **FSS:** LOS ANGELES
Remarks: To be decomsnd June 23.

GOFFS (L) BVOR 114.4/GFS **FSS:** NEEDLES

GORMAN (L) BVORTAC 116.1/GMN **FSS:** BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

§HAWTHORNE MUNI *IFR* 1E **FSS:** LOS ANGELES (DL)
64 H45/7–25(1) (S–30, T–50, TT–) BL4,11 S–5 F4 U2 DT2
REIL[1] rnwy 25
Remarks: Rnwy 7 displaced threshold 1025′ E, 3975′ avbl lndg rnwy 7. Rnwy 25 displaced threshold 475′ W. 4525′ avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. Rnwy 25 apch restricted by pole line. Rgt tfc E. [1]REIL inop 2300–0700. Prior approval rqrd jet powered acft.
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 124.3[2] 125.2[3]
Remarks: [1]Oper 0700–2300 lcl time. [2]045°–224°. [3]225°–044°.

HAYWARD AIR TERMINAL IFR 25W **FSS:** OAKLAND
46 H52/10R–28L(2) (S–100, T–190, TT–290) BL4 S5 F4 DT2
Tower 118.9 122.5R 212T **Gnd Con** 121.7
Radar Services:
Oakland App Con 118.1 116.8T
Oakland Dep Con 124.7 120.9 116.8T
RBn MHW 242/HWD 243° 0.4 to fed
Remarks: [1]Oper 0600–2400 lcl time.

HECTOR (H) BVORTAC 112.7/HEC **FSS:** DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL **FSS:** IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI **FSS:** SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS **FSS:** PALMDALE

LA VERNE
BRACKETT FLD *IFR* 1SW **FSS:** ONTARIO (DL)
997 H40/8–26(1) BL4 S5 U2 DT2
Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.
Tower[1] 118.2 122.7R ~~121.5~~ **Gnd Con** 121.7
VFR ADV: Ctc March APP CON 120.8, 122.5R/DEP CON 125.5, 122.5R
Remarks: [1]Oper 0700–2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN **FSS:** STOCKTON

LONG BEACH *IFR* 3NE **FSS:** LOS ANGELES (DL)
§LONG BEACH (Daugherty Fld)
58 H100/12–30(5) (S–90, T140, TT–240) BL4,6,8A,10,11,12 S5 F5, JP1, JP4 U2 DT2 **RVR:** Rnwy 30.
Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R, 34R.
Long Beach Tower 119.5[1] 120.5[2] 126.2[2] 122.4R[1] 242T[1]
Gnd Con 121.9
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558
ILS 110.3 I–LGB Apch Brg 300° **LOM** 233/LG
VHF/DF[1] contact Tower.

CALIFORNIA—*Continued*

(L) BVORTAC 115.7/LGB 274° 4.4NM to fld
Remarks: [1]For all left rnwys. [2]For all right rnwys. **VOT:** 109.0.

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§LOS ANGELES INTL *IFR* 9SW FSS: LOS ANGELES on Fld
126 H120/7R-25L(4) (S-100, T-180, TT-340)
BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R **RVV:** Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R
Remarks: Rnwy 34 threshold displaced 1679′ N. Rnwys 25L, 25R thresholds displaced 600′ W. Rnwy 16-34 (S125 T200+ TT400+).
Tower 118.9 125.8 123.7[1] 122.7R **Gnd Con** 121.6 121.8
‡**Clrnc Del** 126.85 121.4
ATIS: 108.5
Radar Services:
App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Dep Con 125.2[3] 124.3[2]
Tfc Info ctc App Con 30 mi out.
PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.
ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426
ILS[4] 109.9 I-LAX Apch Brg 248° **LOM:** 266/LA
VHF/DF ctc twr.
(H) BVORTAC 113.6/LAX at fld.
RBn SABH 332●/LAX 245° 3.4 NM to fld.
Remarks: [1]Heli Operns. [2]035-224° [3]225-044° [4]Glide slope unusable below 300′ MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)
§VAN NUYS *IFR* 3NW FSS: LOS ANGELES (DL)
800 H80/16R-34(2) (S-70, T-120, TT-210) BL5,11 S5 F4 JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R
Remarks: Rnwy 16R threshold displaced 1376′ S. 6624′ avbl lndg rnwy 16R. Rnwy 16L-34R daylgt use only. Rnwy 16L threshold displaced 1432′ S. 2568′ avbl lndg rnwy 16L. Parallel 2000′ strip bet 16L-34R and 16R-34L clsd except emerg.
Tower[1] 120.3[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7
ATIS: 113.1
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
(L) VOR 113.1/VNY on fld.
Remarks: [1]Oper 0600-2200 lcl time. [2]360-149° and departure rnwy 16L-34R. [3]150-359° and departure rnwy 16R-34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN FSS: FRESNO

MARYSVILLE (T) BVOR 110.8/MYV FSS: MARYSVILLE

MATHER (L) VORW 114.6/MHR FSS: SACRAMENTO

MAXWELL (L) BVORTAC 110.0/MXW FSS: MARYSVILLE

McCLELLAN RBn MHW 395/MCC FSS: SACRAMENTO

MODESTO
§CITY-COUNTY *IFR* 2 SE FSS: STOCKTON (DL)
96 H50 (2) BL4 S5 F4 DT2
Remarks: Rgt tfc rnwys 11R, 29R.
Tower[1] 120.0 122.7R **Gnd Con** 121.7
Modesto (T) BVOR 108.4/MOD
Remarks: [1]Oper 1400-0600Z.

MONTAGUE
SISKIYOU COUNTY *IFR* 4NE FSS: MONTAGUE ON FLD
2651 H75(1) (S90 T120 TT1 75) BL4 S5 F4 DT 2
Tower 126.2 118.7T 122.5R
Montague RBn BH 382/SIY
Remarks: Opers 1600-2400Z. Mon-Fri, clsd holidays. During hrs twr not in opern AAS will be provided by the FSS.

CALIFORNIA—*Continued*

§MONTEREY PENINSULA *IFR* 3SE **FSS:** SALINAS (DL)
220 H50/10-28(2) (S-40, T-70, TT-120) BL5,6,8A,9 S5 F5, JP1 U2 DT2
Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.
Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9
Monterey App Con 120.8
Monterey Dep Con 120.8
ILS[1] 110.1 I-MRY Apch Brg 096° **LOM:**[2] 281/MR
Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130-150°.

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§NAPA COUNTY 5S **FSS:** OAKLAND (DL)
33 H53/18-36(2) BL4 S5 F4 DT2
Tower[1] 118.8 122.7R **Gnd Con** 121.7
(L) BVORTAC 112.1/APC
Remarks: [1]Opers 1500-0700Z

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON LJ VORW 117.6/SBD
RBn MHW 347/BD

OAKLAND
§OAKLAND INTL *IFR* 4S **FSS:** OAKLAND on Fld 6 H100/11-29(4) (S-100, T-160, T-290) BL6,8A,9,14,15 S5 F5, TP1, JP4 U2 DT2
RVV: Rnwy 27R **RVR:** Rnwy 29
Remarks: Rnwy 33 threshold displaced 2113′ N. Rgt tfc rnwys 27R, 9R, 33 & 11. Tie down overngt Fee.
Oakland Tower 118.3 126.0 122.6R 116.8T
Clrnc Del 121.1
Gnd Con 121.9 121.6
ATIS: 108.7 109.9
Radar Services: (BCN)
Oakland App Con 118.1[1] 116.8T 120.9[2]
Oakland Dep Con 124.7
Tfc Info Call App Con 25 mi out.
PAR[4] Rnwy 29 Ceil 200 Vslby ½ mi Min Alt 206
ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.
ILS 108.7[6] I-INB Apch Brg 293° BC unusable **LOM:** 266/IN
109.9[5] I-OAK Apch Brg 275° BC unusable
VHF/DF[3] available, contact Tower.
Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.
Oakland RBn SABH 362●/OAK on fld.
Remarks: [1]271-090° 090-270° [3]Unusable below 6000′ MSL 360-050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. [5]Glide slope rnwy 27 unusable for auto apchs. [6]ILS unusable for auto apchs. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

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§ONTARIO INTL *IFR* 2E **FSS:** ONTARIO on Fld
952 H100/7-25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 1000′ on W end. 1000′ overrun E end rnwy 7-25.
Tower 118.5 122.5R **Gnd Con** 121.9
Clrnc Del 120.6
Radar Services: (BCN)
March App Con 120.8 122.5R 111.4T
March Dep Con 125.5 122.5R
ILS 109.7 I-ONT Apch Brg 255° **LOM:** 227/OM
(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VORTAC 111.2/OAF **FSS:** SANTA BARBARA

OXNARD
§VENTURA COUNTY *IFR* 1W **FSS:** SANTA BARBARA (DL)
43 H59/7-25(1) (S-36, T-48 TT-75) BL4,11 S5 F4, JP4 U2 DT2 **REIL** rnwy 25.
Remarks: Rnwy 25 threshold displaced 1377′ W. 4570′ avbl

CALIFORNIA—Continued

Indg rnwy 25. Rnwy 7 threshold 750′ E. 5197′ avbl Indg rnwy 7.

Tower 120.7 122.4R ~~121.6~~ **Gnd Con** 121.9

Oxnard App Con 124.7 122.5R

Oxnard Dep Con 124.7

Ventura (L) BVORTAC 108.2/VTU

Remarks: [1]Operns 0600-2200 lcl time.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF

RBn SABH 338/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)

816 H46/9-27(2) BL5, 11 S5 F4 U2 DT2

Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.

Tower[1] 121.0 122.6R ~~121.5~~ **Gnd Con** 121.7

VFR ADV Ctc March App Con 120.8 122.5R/Dep Con 125.5 122.5R

(T) VOR 111.4/RAL

Remarks: [1]Opers 1400-0600Z.

§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld

21 H60/2-20(3) (S-90, T-120, TT-180) BL4,6 8A, 9 S5 F4, TP-1 U2 DT2 **RVV:** Rnwy 2

Remarks: Rnwy 16 apch restricted by antenna-glide angle 12 to 1. 2200′ apch lgtg rnwy 2.

Tower 119.5 122.5R **Gnd Con** 121.9

ATIS: 110.3

Radar Services: (BCN)

App Con 119.1 125.2 121.0 122.5R

Dep Con 124.5

VHF/DF ctc FSS.

ILS 110.3 I-SAC Apch Brg 016° **LOM:** 356/SA

(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO

§MONTGOMERY FLD 6N **FSS:** SAN DIEGO (LC 296-3181)

423 H34/10-28(2) (S30- T-, TT-) BL4 S5 F4 U2 DT2

Remarks: Rgt tfc rnwys 5, 10.

Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9

(H) BVORTAC 117.8/SAN 304° 0.2 NM to fld

Remarks: [1]Opers 0700-2300 lcl time

§SAN DIEGO CO—GILLESPIE FLD 10NE **FSS:** SAN DIEGO (LC 296-3181)

385 H53(9-27(2) (S-67, T-113, TT) BL4 S5 F4 U2 DT2

Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl Indg rnwy 27. Rnwy 17-35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.

Gillespie Tower[1] 120.7 122.7 **Gnd Con** 121.7

Remarks: [1]Oper 0700-2300 lcl time

§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE **FSS:** SAN DIEGO on Fld

15 H87/9-27(2) (S-100, T-200, TT-400) BL5,6,8A,9,11 S-5 F5, JP1 U2 DT2 **REIL:** Rnwy 27

CALIFORNIA—Continued

Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl Indg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions.

Tower 118.3 122.5R 109.6T **Gnd Con** 121.7

Radar Services: (BCN)

San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T

San Diego Dep Con 125.7[3] 125.3[4]

Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.

ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715

ILS 110.9 I-SAN Apch Brg 092° **LOM:** 278/SA

Lindbergh (L) BVOR 109.6/LIF on fld.

Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)

12, H97(10L-28R) (4) (S-200, T-200, TT-400) BL6,8A,9,10,11,12 S-5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVV:** Rnwy 19 **RVR:** Rnwy 28R

Remarks: Rnwy 28R displaced threshold 200′ NW. 9496′ avbl Indg rnwy 28R. Rnwy IR displaced threshold 1100′ NE. 8400′ avbl Indg rnwy IR. REIL N end rnwy 19L and E end rnwy 28L inop.

Tower 120.5 122.7R **Gnd Con** 121.8

‡Clrnc Del 121.4

ATIS: 111.2

Radar Services:

App Con 124.9[1] 119.3[2] 111.2T 109.5T

Dep Con 124.4 128.5

PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.

ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412. Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512

ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF

VHF/DF available, contact tower.

(L) VOR 111.2/SFO at fld.

RBn MHW 275/SIA 191° 0.6 to rnwy 19L.

Remarks: [1]315-134°, [2]135-314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0 unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)

56 H78/12R-30L (2) (S-100, T-130, TT-210) BL6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30L

Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl Indg rnwy 30L. Twr unable to see NE tfc patn.

Tower 120.7[1] 122.4R 124.0[2] **Gnd Con** 121.7

ATIS[3] 108.2

Radar Services: (BCN)

Moffett App Con 120.1 123.7 122.4R 110.9T 108.2T

Moffett Dep Con 121.3 122.4R 108.2T

Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.

ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.

ILS 110.9 I-SJC Apch Brg 302°

(L) VOR 108.2/SJC on fld.

Remarks: [1]Rnwys 30L-12R [2]Rnwys 30R-12L [3]Opers 0800-2000 lcl time

SAN LUIS OBISPO (L) BVORTAC 112.4/SBP **FSS:** PASO ROBLES

SANTA ANA

§ORANGE COUNTY *IFR* 4 S **FSS:** LOS ANGELES (DL)

53 H57/IL-19R(2) (S-68, T-95, TT-170) BL4,6 S5 F4, JP1 U2 DT2

Tower[1] 119.9 123.8[2] 122.5R ~~121.5~~ **Gnd Con** 121.7

Radar Services: (BCN)

El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T

CALIFORNIA—*Continued*

El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

§SANTA BARBARA MUNI *IFR* 7 W **FSS:** SANTA BARBARA on fld
14 H47/7-25 (3) (S-40, T-71, TT-117) BL4,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 25 overrun unlgtd. Rnwy 25 threshold displaced 296′ W, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I-SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC **FSS:** LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX **FSS:** SANTA BARBARA

§SANTA MONICA MUNI *IFR* 3 E **FSS:** LOS ANGELES (DL)
175 H50/3-21 (1) S-80, T-120, TT-220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[1] 120.1 122.6R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°-225°, [2]225°-044° **VOT:** 110.2 [3]Oper 0700-2300 lcl time. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§SONOMA COUNTY *IFR* 6 NW **FSS:** UKIAH (DL)
125 H50/14-32(2) (S-80, T-130, TT-220) BL4 S5 F4 U2 DT2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU **FSS:** OAKLAND

§STOCKTON METROPOLITAN *IFR* 3S **FSS:** STOCKTON on fld
27 H86/11L-29R(4) (S-100, T-200, TT-400) BL6 S5 F4 TPI U2 DT2
Remarks: First 2000′ rnwy 29R clsd 1500–0200Z Mon–Fri.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I-SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§LAKE TAHOE 2SE **FSS:** SACRAMENTO (DL)
6263 H85/18-36(1) BL4 F4 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 6.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR 113.2/LTA
Remarks: [1]Opers 0700–2300 lcl time

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

§TORRANCE MUNI *IFR* 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L-29R(2) (S-30, T-50, TT-80) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L-29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 118.1 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]

CALIFORNIA—*Continued*

Long Beach Dep Con 127.2
Remarks: [1]Oper 0600–2200 lcl time. [2]045°-224°. [4]225–044°.

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG **FSS:** SANTA BARBARA

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

COLORADO SPRINGS
§PETERSON FIELD *IFR* 6 SE **FSS:** DENVER (LC 634-3127)
6172 H110/17-35(3) (S-100, T-200, TT-400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17–35. 1000′ overrun each end rnwy 17–35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I-COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] available, contact tower.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340–055° and 15 nmi 245–270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER
§STAPLETON INTL *IFR* 4 E **FSS:** DENVER on Fld
5331 H115/17-35(3) (S-120, T-200, TT-350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: Twr unable to determine whether acft are on correct final apch to rnwys 8L-8R and 26L-26R. Rnwy 17–35 clsd every Mon 1530–1730Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3
Radar Services: (BCN)
Denver App Con 119.3[1] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I-DEN Apch Brg 257° **LOM:** 362/DE
108.1 I-SPO Apch Brg 350° **LMM**[3] 210/PO
VHF/DF available, contact tower.
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270°-089°. [2]090–269°. [3]To be decomsnd July 21.
VOT: 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC **FSS:** FARMINGTON

DURANGO (L) BVOR 108.2/DRO **FSS:** FARMINGTON

ENGLEWOOD RBn H-SAB 379●/EWD **FSS:** DENVER

GILL (L) BVOR 108.8/GLL **FSS:** DENVER
Remarks: To be (L)-BVORTAC July 21.

COLORADO—*Continued*

GRAND JUNCTION
§**WALKER FIELD** ***IFR*** 3NE **FSS:** GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12
S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I–GJT Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[2] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable 5158′ and from ¾ NM to rnwy threshold. [2]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC **FSS:** GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO **FSS:** LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC **FSS:** DENVER

KREMMLING (H) BVORTAC 113.8/RLG **FSS:** EAGLE

LAMAR (H) BVORTAC 116.9/LAA **FSS:** LA JUNTA

LOWRY (L) VOR 112.7/LRY **FSS:** DENVER

MEEKER (L) BVORTAC 111.8/EKR **FSS:** EAGLE

PETERSON (L) VORW 109.0/PEF **FSS:** DENVER

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§**PUEBLO MEML** ***IFR*** 5E **FSS:** PUEBLO on Fld
4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F5 JP1 **RVV:** Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I–PUB Apch Brg 075° **LOM:** 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC **FSS:** AKRON

TOBE (L) BVORTAC 115.8/TBE **FSS:** TRINIDAD

TRINIDAD RBn SABH 329●/TAD **FSS:** TRINIDAD

CONNECTICUT

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§**BRIDGEPORT MUNI** ***IFR*** 3SE
FSS: WINDSOR LOCKS (LC ED 5–6097)
9 H47 (11–29(3) (S–36.5, T–55.5, TT–) BL5,6 S5 F5 JP1, JP4 U2 DT2
Remarks: Apch to rnwys 16, 29 blkd by trees.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON **FSS:** PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI–3–3245)
Remarks: [1]Oper by State.

HARTFORD (L) BVORTAC 114.9/HFD **FSS:** WINDSOR LOCKS
RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD **FSS:** WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN **FSS:** WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW **FSS:** PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT **FSS:** WORCESTER

WINDSOR LOCKS
§**BRADLEY FIELD** ***IFR*** 3W **FSS:** WINDSOR LOCKS on Fld.
173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10 S5 F5, JP4,5 U2 DT2 **VASI:** Rnwy 33
Remarks: Rnwy 6–24 A–Gear both ends.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573

CONNECTICUT—*Continued*

ILS 110.3 I–BDL Apch Brg 058° **LOM:** 388/BD
Remarks: Glide slope rnwy 6 unusable below 373′.

DELAWARE

DOVER (T) VOR 108.4/DOV **FSS:** MILLVILLE
Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO **FSS:** MILLVILLE

WATERLOO (L) BVOR 112.6/ATR **FSS:** SALISBURY

WILMINGTON
§**GREATER WILMINGTON** ***IFR*** 4S **FSS:** MILLVILLE (LC 652–5419)
79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5 F4, JP1 U2 DT2
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125.0 110.3T
ILS 110.3 I–ILG Apch Brg 014° BC unusable **LOM:** 248/IL
VHF/DF available, contact tower.
New Castle (L) BVORTAC 114.0/EWT 067° 0.5 nmi to fld.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON
§**DULLES INTL** ***IFR*** 21W **FSS:** WASHINGTON (DL)
313 H115/(1L–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15 S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R
Remarks: RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡**Clrnc Del** 127.4
Radar Services: (BCN)
App Con 119.2 126.1
Dep Con 125.55
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I–DLX Apch Brg 186°
109.3 I–DIA Apch Brg 006° **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

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§**WASHINGTON NATIONAL** ***IFR*** 3S **FSS:** WASHINGTON on Fld
15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15 S5 F5,JP1 U2 DT2 **VASI:** Rnwy 15 **RVV:** Rnwys 18, 15 **RVR:** Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18
Remarks: Very limited parking. Caution turbulance apch ends rnwys 21, 33 and 36.
Tower 119.1 122.5R 118.3[5] **Gnd Con** 121.7
‡**Clrnc Del** 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[2] 134.1[3] 127.0 122.5R 128.8 109.9T
Dep Con 118.1[1] 126.55[2]
Tfc Info Ctc Ap Con on 119.3
PAR[4] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I–DCA Apch Brg 003° BC unusable **LOM:** 332/DC
VHF/DF available, control tower.
Washington (L) VORTAC 111.0/DCA at fld.
Washington RBn H–SAB 332●/DC 001° 4.6 NM to fld.
Remarks: [1]West [2]East [3]Andrews Sector. Circling PAR avbl on 15 min notice durg VFR conditions. [4]Radar monitoring instrument apchs only at pilot's request. [5]Helicopter ctl. LOM is H–SAB. **VOT:** 108.2.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY **FSS:** MIAMI

CECIL (L) VORW 108.2/NCZ **FSS:** JACKSONVILLE

CRESTVIEW (H) BVORTAC 115.9/CEW **FSS:** CRESTVIEW
RBn HW 350/CEW

CROSS CITY (L) BVOR 112.0/CTY **FSS:** GAINESVILLE

§DAYTONA BEACH MUNI *IFR* 3SW **FSS:** ORLANDO (LC255–4767)
34 H57/6–24(3) (S–60, T–80, TT–) BL4,6,8A,9
S5 F5, JP1 U2
Remarks: Rgt tfc rnwy 6.
Tower 120.7 126.2 122.5R **Gnd Con** 121.9
App Con 123.9 122.5R 112.6T 109.7T
ILS 109.7 I–DAB Apch Brg 065° **LOM:** 263/DA
(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.

DESTIN RBn HW 201/DES **FSS:** CRESTVIEW

EGLIN (L) VOR 110.8/VPS **FSS:** CRESTVIEW

EGMONT KEY RBn HW 310/H

§FT. LAUDERDALE-HOLLYWOOD INTL *IFR* 3SW AOE
FSS: MIAMI (LC 524–0233)
10 H74/9–27(3) (S–115, T–200, TT–400) BL4 S5 F5, JP1 U2
Remarks: Rnwy 9–27 thresholds displaced 600′ both ends 1045′ AGL twr 7NM SSW.
Fort Lauderdale Tower 119.3 122.5R 111.4T
Gnd Con 121.7
Radar Services: (BCN)
Miami App Con 123.9 119.7
Miami Dep Con 123.9 119.7
Ft Lauderdale (L) BVOR 111.4/FLL on fld.
Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY **FSS:** FORT MYERS
RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD **FSS:** TAMPA

GAINESVILLE (H) BVORTAC 116.2/GNV **FSS:** GAINESVILLE

GREENVILLE (L) BVOR 109.0/GEF **FSS:** TALLAHASSEE

HOLLYWOOD
§NORTH PERRY 5W **FSS:** MIAMI (LC 524–0233)
9 H31/4–22(4) (Max–16) BL5 S5 F4 U2
Remarks: Two way rdo required.
Tower[1] 121.3 122.4R
Remarks: [1]Opers 1200–0200Z.

HOMESTEAD (L) VOR 108.2/HST **FSS:** MIAMI
RBn MHW 221/HST

JACKSONVILLE
§IMESON *IFR* 5N **FSS:** JACKSONVILLE on Fld
52 H79/5–23(3) (S–62, T–110, TT–200) BL4,6,12 S5 F5, JP4 U2
RVV: Rnwy 5
Remarks: Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. Rnwy 18–36 open for dalgt VFR operns. 1500′ apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410/ E, rnwy 12 displaced 335′ W. Jet arresting gear rnwy 5–23.
Jacksonville Tower: 118.3 126.2 122.5R 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2
Tfc Info: Ctc App Con on 119.0 25 mi out.
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452.
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I–JAX Apch Brg 045° BC unusable **LOM:** 221/JA

FLORIDA—*Continued*

Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.
Jacksonville RBn H–SAB 344●/JAX 270° 1.4NM to fld.
VHF/DF available, contact tower
Remarks: [1]Glide slope unusable below 150′. **VOT:** 111.0

§KEY WEST INTL *IFR* 2 E AOE **FSS:** KEY WEST on Fld
4 H48/9–27(1) (S–30, T–40, TT–) BL4 S3 F4
Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 10:00 PM to Key West FSS.
Tower[1] 119.5 122.5R **Gnd Con** 121.9
Navy Key West App Con 118.7 122.5R
VFR ADV Ctc Key West rdo 0300–1100Z
(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.
RBn SBH 332/EYW 066° 1.2NM to fld.
Remarks: [1]Oper 0600–2200 lcl time.

LA BELLE (L) BVOR 110.4/LBV **FSS:** FORT MYERS

§LAKE CITY MUNI 3 E **FSS:** GAINESVILLE
202 H68/10–28(5) (S–75, T–140, TT–250) *L S5 F4 U1
Tower[1] 126.2
Remarks: [1]Oper 1300–2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL **FSS:** TAMPA (LC 682–3258

MARATHON RBn HW 260/MTH **FSS:** KEY WEST

MARIANNA (L) BVOR 114.0/MAI **FSS:** DOTHAN

MELBOURNE
§JOHN F KENNEDY MEML *IFR* 2 NW **FSS:** MELBOURNE on Fld
32 H112/(9–27(3) (S–85, T–145, TT–270) BL4 S5 F4, JP5 U2
Remarks: 9603′ rnwy 9–27 available ngts, displaced threshold rnwy 27 1589′W
Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9
Radar Services:
Patrick App Con 118.4
Patrick Dep Con 118.4
Melbourne (L) BVOR 110.0/MLB on fld.
Melbourne RBn HW 257/MLB 087° 2.1NM to fld.
Remarks: [1]Oper 0600–2400 daily, VFR use only.

MIAMI
§MIAMI INTL *IFR* 8 NW AOE **FSS:** MIAMI on Fld
9 H105/9L–27R (4) (S–200, T–200 TT–400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L
Remarks: Fee. Clsd non engine acft.
Tower 118.3 126.2 122.4R **Gnd Con** 121.8
‡Clrnc Del 127.5
ATIS: 115.9
Radar Services: (BCN)
App Con 118.1[1] 120.5[2] 122.4R
Dep Con 123.9 119.7
Tfc Info Ctc Twr 20 mi out or remain above 2500′.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509.
Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.
ILS 110.3 I–MFA Apch Brg 087° **LOM:**[4] 365/MF
109.5 I–MIA[3] Apch Brg 267° **LOM:** 248/MI
VHF/DF available, contact tower.
(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12
RBn H–SAB 365●/MF 087° 4.5NM to rnwy 9L.
Remarks: [1]090°–269° [2]270°–089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of center-line extended. [3]Glide slope rnwy 27 unusable below 175′ MSL. **VOT:** 112.0 [4]LOM is H–SAB.

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§OPA LOCKA *IFR* 10 NW **FSS:** MIAMI
9 H80/9L–27R(5) (S–96 T–155 TT–290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L–27R. 1045′ TV twr 5 NM NNE. JP–1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.

FLORIDA—*Continued*

Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Miami App Con 120.5 118.1
Miami Dep Con 123.9 119.7
Remarks: [1]Oper 1100–0300Z.

§TAMIAMI 8 W **FSS:** MIAMI
10 H38/14 32 (3) BL4 S5 F4
Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.
Tower[2] 121.1 122.6R **Gnd Con** 121.7
Radar Services:
Miami Dep Con 123.9[1] 119.7[2]
Remarks: [1]270°–089° [2]090–269°. [2]Opers 1200–0400Z.

OCALA (L) BVORTAC 112.8/OCF **FSS:** GAINESVILLE

ORLANDO
§HERNDON ***IFR*** 3 E **FSS:** ORLANDO on Fld
113 H60/7–25(3) (S–90, T–160, TT–300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7
Remarks: NW–SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.
Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7
Clrnc Del 121.7
Radar Services:
Orlando App Con 119.4 124.8 122.5R 109.9T
Orlando Dep Con 121.1
Tfc Info Ctc App Con on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613.
Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.
ILS 109.9 I–ORL Apch Brg 067° **LOM:** 221/OR
(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK **FSS:** WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN **FSS:** TALLAHASSEE

§PENSACOLA MUNI ***IFR*** 3 NE **FSS:** PENSACOLA on Fld
118 H50/16–34(2) (S–100, T–180, TT–320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16
Remarks: Overnight tie-down fee.
Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 123.9[1] 134.1 122.7R 119.0[2]
Dep Con 119.0[2] 134.1 123.9[1]
Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN
RBn H–SAB 326●/PNS 343° 1.8NM to fld.
Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR **FSS:** MIAMI

ST AUGUSTINE
§FAIRCHILD-ST AUGUSTINE 3N **FSS:** JACKSONVILLE
10 H65/13–31(3) (S–30) BL4,6 S5 F5
Remarks: Rnwy 2–20 and 6–24 clsd to acft over 12,500 lbs when twr not in opern.
Tower[1] 126.2 123.1 122.5R
Remarks: [1]Oper 1230–2115Z Mon–Fri.

ST. PETERSBURG
WHITTED 2E **FSS:** TAMPA (DL)
7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2
Tfc Info: See Tampa Intl
Remarks: Rgt tfc rnwys 6, 36.
Tower[1] 120.4 122.4R **Gnd Con** 121.8
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T
Tampa Dep Con 126.5
Remarks[1] To be comsnd June 1. Opers 0600–2200.

§ST. PETERSBURG-CLEARWATER INTL ***IFR*** 8N **FSS:** TAMPA (LC 446–1168)

FLORIDA—*Continued*

10 H80/17–35 (3) (S–95, T–155, TT–200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17
Remarks: Rnwy 4–22 clsd to night ops UFN.
Tower 118.3 122.7R **Gnd Con** 121.9
Radar Services (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T **Tampa Dep Con** 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI
St Petersburg (L) BVORTAC 116.4/PIE at fld.
Remarks: [1]Glide slope unusable below 110′.

SANFORD NAS RBn SH 408/NRJ **FSS:** ORLANDO

§SARASOTA-BRADENTON ***IFR*** 3 N **FSS:** ST. PETERSBURG (DL)
24 H50/13–31(3) (S–62, T–110, TT–190) BL4,6 S5 F5, JP1 U2
Remarks: Rnwy 9–27 and all perimeter txwys clsd to acft in excess 12,500 lbs.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 108.4T
Tampa Dep Con 126.5
Sarasota (L) BVOR 108.4/SRQ at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUFLEY (L) BVOR 108.8/NUN **FSS:** PENSACOLA
RBn MH 293/NUN

§TALLAHASSEE MUNI ***IFR*** 4 SW **FSS:** TALLAHASSEE on Fld
81 H61/18–36(2) (S–80, T–150, TT–270) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 36
Tower 118.7 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
App Con 118.1 122.5R 117.5T 110.3T
Dep Con 118.1
ILS[1] 110.3 I–TLH Apch Brg 358° **LOM:** 379/TL
(H) BVORTAC 117.5/TLH
RBn H–SAB 379●/TL 358° 4.1NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 160′ MSL. **VOT:** 111.0 LOM is HSAB.

§TAMPA INTL ***IFR*** 3 W AOE **FSS:** Tampa on fld
27 H87(18R–36L (S–60, T–175, TT–270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L
Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.
Tower 119.9 126.2 122.5R 110.3T **Gnd Con** 121.7
Radar Services (BCN)
App Con 119.5 125.3 122.5R 118.5 116.0T 116.4T 108.4T
Dep Con: 126.5
Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.
ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP
RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36
VHF/DF: ctc FSS
Remarks: **VOT:** 111.0

TAYLOR (L) BVORTAC 113.8/TAY **FSS:** VALDOSTA

TYNDALL (L) VOR 117.7/PAM **FSS:** TALLAHASSEE
RBn HW 227/AAN

VERO BEACH (H) BVORTAC 117.3/VRB **FSS:** VERO BEACH

WEST PALM BEACH
§PALM BEACH INTL ***IFR*** 3 W AOE **FSS:** MIAMI (LC 832–5697)
19 H80/9–27(2) (S–85, T–400, TT–) BL4.6,8A,9 S5 F5 JP4 **RVV:** Rnwy 9
Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.
Tower 119.1 126.2[2] 122.7R **Gnd Con** 121.9
App Con 118.0 122.7R 115.5T 109.3T
ILS[1] 109.3 I–PBI Apch Brg 093° **LOM:** 356/PB
Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.

FLORIDA—*Continued*

Palm Beach RBn HW 356/PB 093° 5.7 NM to fld.

Remarks: [1]Glide slope unusable below 150′. [2] To be decomsnd July 15. **VOT:** 109.0

LOM is HW.

GEORGIA

ALBANY (L) BVOR 112.9/ABY **FSS:** ALBANY

ALMA (H) BVORTAC 115.1/AMG **FSS:** ALMA

ATHENS (L) BVORTAC 109.6/AHN **FSS:** ANDERSON

ATLANTA

§ATLANTA MUNI *IFR* 7SSW **FSS:** ATLANTA

1024 H100(9L–27R(4) (S–100, T–170, TT–340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.

Remarks: Aprxly 2100′ of W end rnwy 9R–27L not visible from twr. TV towers 1042′ (2049′ MSL) 8.5 NM NE. 1076′ (2049′ MSL) 7.5 NM NE. 1100′ (2049′ MSL) 10 nmi NE. Commercial Fee only. [3]Avail for apch and roll out.

Tower 119.1 122.7R **Gnd Con** 121.9

‡Clnrc Del 121.6

ATIS: 111.8 111.0

Radar Services: (BCN)

App Con 127.7 (N of V18N) 118.1 (S of V18N) 109.9T 109.3T 110.5T

Term Con 119.3 (S of V18N) 119.8 (N of V18N)

Dep Con 125.7

Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.

PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.

ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424.
Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.

ILS 109.9 I–ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I–AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I–ALR Apch Brg 089° **LOM:** 254/AL

(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.

RBn H–SAB 266●/ATL 270° 4.7NM to rnwy 27R.

Remarks: [1]Glide slope rnwy 33 unusable below 1085′ MSL. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

§DEKALB-PEACHTREE *IFR* 8 NE **FSS:** ATLANTA

1002 H40/16–34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2

Remarks: Ctl twr unuoble to see first 1000′ rnwy 2. TV towers 1042 (2049′ MSL) 7.5NM SSW; 1076′ (2049 MSL) 8NM SSW; 1100′ (2049′ MSL) 5NM SSW. Two unlgtd 8′ bldgs 480 NNE intsxn rnwy 16–34 and 9–27, 160′ E of rnwy 16–34.

Peachtree Tower[1] 120.9 122.5R **Gnd Con** 121.7

Radar Services:

Atlanta App Con 120.5 **Atlanta Dep Con** 123.8

Remarks: [1]Oper 1200–0400Z.

§FULTON COUNTY *IFR* 6W **FSS:** ATLANTA on Fld

839 H52/8–26(2) (S50, T–77, TT–) BL4, 11 S5 F5

REIL: Rnwy 8.

Remarks: Towers 1042′ (2049′ MSL) 9 NM E. 1076′ (2049′ MSL) 8NM E. 110′ (2049′ MSL) 9.5 NM E.

Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7

Radar Services:

Atlanta App Con 120.5 **Atlanta Dep Con** 123.8

VHF/DF ctc FSS.

(L) BVOR 108.2/FTY on fld.

RBn MH 245/FTY on fld

Remarks: [1]Oper 1200–0400Z.

AUGUSTA

§BUSH FIELD *IFR* 6S **FSS:** AUGUSTA on Fld

145 H80–17–35(2) (S–150, T–200, TT–360) BL4,6,8A,9 S5 F5, JP1, JP4 U2

GEORGIA—*Continued*

Remarks: 1506′ (1882′ MSL) twr 7NM ENE and 1292′ (1677′ MSL) twr 7NM NE.

Augusta Tower 118.7 126.2 122.5R 110.5T

Gnd Con 121.9

Augusta App Con 125.4 122.5R 113.9T 110.5T

ILS[1] 110.5 I–AGS Apch Brg 349° BC unusable **LOM:** 233/AG

Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.

Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.

VHF/DF ctc FSS.

Remarks: [1]Glide slope unusable below 245′ MSL.

BLAKELY RBn MHW 365/BLG **FSS:** DOTHAN

BRUNSWICK (L) BVOR 109.8/SSI **FSS:** BRUNSWICK

COLUMBUS

§MUSCOGEE COUNTY *IFR* 4NE **FSS:** ATLANTA

397 H50/5–23(2) (S–60, T–80, TT) BL4,6 S5 F5, JP5 U2

Remarks: Rnwy 12–30 closed to ngt lndgs.

Tower 120.1 122.5R **Gnd Con** 121.9

ILS[1] 110.3 I–CSG Apch Brng 053° BC unusable **LOM:** 355/CS

Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.

Remarks: [1]Glide slope unusable below 697′.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN **FSS:** MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA **FSS:** BRUNSWICK

HARRIS (L) BVOR 110.4/HRS

LA GRANGE (L) BVOR 109.4/LGC **FSS:** ANNISTON

LAWSON (L) VOR 111.4/LSF

RBn 335/AWS

Remarks: VOR inoperative UFN.

LIBERTY RBn MHW 263/HIN **FSS:** SAVANNAH

LOST MOUNTAIN RBn HW 314/LSM

§MACON MUNI *IFR* 9S **FSS:** MACON on Fld

354 H50/5–23(2) (S–30, T–50, TT–85) BL4,6,8A,9 S3 F5, JP1 U2 **RVV:** Rnwy 5

Tower 118.3 122.5R 109.5T **Gnd Con** 121.7

Radar Services: (BCN)

App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T

Dep Con 124.8

ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.

ILS[1] 109.5 I–MCN Apch Brg 047° BC unusable **LOM:** 290/MC

(H) BVORTAC 114.2/MCN at fld.

VHF/DF ctc FSS.

Remarks: [1]Glide slope unusable below 450′ MSL.

McDONOUGH (L). BVORTAC 113.6/MDU **FSS:** ATLANTA

MOULTRIE (L) BVOR 108.8/MGR **FSS:** VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR **FSS:** ATLANTA

REX (L) VOR 111.8/REG **FSS:** ATLANTA

ROME (L) BVOR 115.4/RMG **FSS:** ATLANTA

RBn MHW 388/RMG

ROYSTON (L) BVOR 110.0/RYN **FSS:** ANDERSON

SAVANNAH

§TRAVIS FIELD *IFR* 7NW **FSS:** SAVANNAH on Fld

50 H90/9–27(3) (S40–T60–TT–110) BL4,6,8A,9 S5 F4, JP5 **RVV:** Rnwy 9

Remarks: Rnwy 27 threshold displaced 400′. Rnwy 5–23 clsd all acft in excess 12,500 lbs GWT. Jet barrier and arresting gear rnwy 9–27

Savannah Tower 119.1 126.2 122.5R 110.1T

Gnd Con 121.9

GEORGIA—*Continued*

Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7
ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: VOT: 111.0

TOCCOA (L) BVOR 109.8/TOC **FSS:** ANDERSON

VALDOSTA (L) BVOR 110.4/VLD **FSS:** VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA **FSS:** MACON

WAYCROSS (L) BVORTAC 110.2/AYS **FSS:** ALMA

IDAHO

§BOISE AIR TERMINAL *IFR* 3S **FSS:** BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9
S5 F5, JP1,4 U2 **RVV:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R. Jet barriers and arresting gear Rnwy 10R–28L plus jet barriers with donut supported cable aprxly 1000′ in from threshold lgts on rnwy 10R–28L.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI **FSS:** BURLEY
RBn SBH 272/BYI

COEUR D' ALENE RBn HW 347/COE **FSS:** SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS **FSS:** IDAHO FALLS

§IDAHO FALLS
FANNING FIELD *IFR* 2NW **FSS:** IDAHO FALLS on Fld
4739 H75/2–20(2) (S–30, T–90, TT–150) BL5,6 S5 F4, JP5
Remarks: Rnwy 20 threshold displaced 930′ SW. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 655′ S. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350●/IDA 199° 2.2NM to rnwy 20.
VHF/DF ctc FSS.
Remarks: [1]Oper 1300–0500Z.

LEWISTON (L) BVOR 108.2/LWS **FSS:** WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD **FSS:** MALAD CITY

McCALL (H) BVORTAC 116.2/MYL **FSS:** BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP **FSS:** MULLAN PASS

§POCATELLO MUNI *IFR* 7NW **FSS:** POCATELLO on Fld
4448 H82/3–21(3) (S30, T80, TT130) BL5,6,9,12 S5 F4 JP1
U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF **FSS:** BURLEY

ILLINOIS

§ALTON CIVIC MEML 5E **IFR** **FSS:** ST. LOUIS
541 H51(2) BL4 S5 F4 JP1 (LC HO 5-4112)
Remarks: P-line NW. Hwy N
Tower[1] 121.1 122.5R **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
St. Louis Dep Con 119.9
VFR ADV: Ctc St. Louis, Lambert-St. Louis
RBn MHW 263/ALN
Remarks: [1]Oper 0700–2300 [2]Southeast Arrivals [3]Northwest arrivals

ILLINOIS—*Continued*

BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB **FSS:** VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI **FSS:** PEORIA

BRADFORD (H) BVORTAC 114.7/BDF **FSS:** PEORIA

CAHAKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

CAPITAL (H) BVORTAC 112.7/CAP **FSS:** VANDALIA

CARBONDALE RBn BMH 248/MDH **FSS:** CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL **FSS:** VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4SSW
FSS: CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4 U2 DT2
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN **FSS:** LAFAYETTE
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY *IFR* 3NW **FSS:** JOLIET (DL)
758 H40/10–28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 DT2
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy 5–23 clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 0600–2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E **FSS:** JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1,500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear acft. (3) 25 knots or more to all acft. Fld clsd daily to all opers btn hrs 2400 and 0600 lcl time due, no safety or svcs facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs.
Meigs Tower[1] 121.3 127.4 122.5R **Gnd Con** 121.9
Chicago Dep Con: 119.5
VFR ADV Ctc twr on 127.4 at least 10 mi out.
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY *IFR* 9SW AOE **FSS:** JOLIET (DL)
619 H65/13R–31L(6) (S–130, T–200, TT–400) BL2,4,6,8A,9,11
S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Customs svc avbl 0800–1700 cst Mon–Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 126.2 123.7 122.7R 109.9T 109.5T
Gnd Con 121.7
Radar Services:
Chicago App Con 119.5 126.2 124.7 124.2 122.6R
118.4 113.9T 110.1T 109.7T **Chicago Dep Con**[1] 124.2 119.2
Tfc Info Ctc Chicago App Con on 119.5.
PAR[2] Rnwy 13R Ceiling 300 Vsby 3/4 mi Min alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I–MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I–MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H–SAB 350●/MDW

ILLINOIS—*Continued*

VHF/DF contact Tower.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immeriate area of Midway. [2]PAR unusable from MM to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. LOM is Kedzie MHW. **VOT:** 111.0.

§CHICAGO-O'HARE INTL ***IFR*** 14NW **FSS:** JOLIET (DL)
667 H116/14R-32L(5) (S–120, T–200, TT–375) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **RVR:** 14R, 14L, 32L
RVV: Rnwys 4, 9, 27, 32R **REIL:** Rnwys 4, 22, 32R **VASI:** Rnwy 22
Remarks: Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts.
O'Hare Tower 118.1 126.2 122.6R 120.7 110.1T 109.7T
‡**Clrnc Del** 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4 125.0 124.2
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby ½ mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby ¾ mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I–ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I–OHA Apch Brg 138° **LOM:** 368/OH
110.5 I–IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I–RVG Apch Brg 318° **LOM:** 257/RV
111.1 I–IDN Apch Brg 318° **LOM** 385/ID
(L) VORTAC 113.9/ORD on fld.
VHF/DF ctc twr.
Remarks: [1]180°–359° [2]360°–179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE

DECATUR MUNI ***IFR*** 4E **FSS:** VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 TPI U–2
Remarks: REIL rnwy 18, 36
Tower: 118.9 122.5R **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700–2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN **FSS:** JOLIET

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

GLENVIEW RBn MH 269/NBU **FSS:** JOLIET

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY ***IFR*** 3S **FSS:** BURLINGTON (DL)

ILLINOIS—*Continued*

590 H55/9–27(3) (S–56, T–82, TT–140) BL4,6,8A,9 S5 F5, JP4 U2 DT2 **RVV:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 121.7[1] 224T
ILS 110.3 I–MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.
Remarks: [1]For IFR acft operg Davenport Mun Arpt.

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE

PEORIA
§GREATER PEORIA ***IFR*** 4W **FSS:** JOLIET
659 H70/12–30(4) (S–65, T–90, TT–170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. Arresting gear rnwy 12–30. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 1–PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD ***IFR*** 9E **FSS:** QUINCY on Fld
769 H54/3–21(3) (S65, T–90, TT–170) BL4,6 F4 JP1 DT2
ILS[1] 1110.1 I–UIN Apch Brg 035° **LOM:** 293/UI
Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.
Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: [1]Glide slope unusable below 950′ MSL. LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS **FSS:** CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD ***IFR*** 4S **FSS:** ROCKFORD on Fld
735 H60/18–36(3) (S–75, T–100, TT–) BL4,6,8A,9 S5 F5, JP1 DT2 **RVV:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I–RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV **FSS:** ST. LOUIS

SAMSVILLE (L) BVOR 116.6/SAM **FSS:** EVANSVILLE

SPRINGFIELD
§CAPITAL ***IFR*** 3NW **FSS:** VANDALIA (DL)
593 H70/4–22(3) (S–85, T–120, TT–210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVV:** Rnwy 4 **REIL:** Rnwy 22.
Remarks: Jet barrier rnwy 4–22.
Tower 121.3 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 118.6 aprx 25NM out
Springfield App Con 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I–SPI Apch Brg 038° **LOM:** 379/SP
Springfield RBn MHW 379/SP
Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY **FSS:** ST. LOUIS

VANDALIA (L) BVOR 114.3/VLA **FSS:** VANDALIA

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID FSS: INDIANAPOLIS

BAKALAR RBn HW 410/BAK FSS: INDIANAPOLIS
RBn MHW 201/BXR

BLOOMINGTON (L) BVOR 110.2/BMG FSS: INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL FSS: INDIANAPOLIS
RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU FSS: INDIANAPOLIS

EVANSVILLE
§DRESS MEMORIAL *IFR* 3N FSS: TERRE HAUTE (DL)
389 H60/3-21(3) (S-70, T-90, TT-) BL4.6 S5 F5 TPI U2 DT2
Remarks: P-line apch rnwy 21. Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below. First 700′ rnwy 21 clsd dalgt operns and first 250′ clsd ngt operns UFN.
Evansville Tower 118.7 122.5R **Gnd Con** 121.9
Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T
VFR ADV: Ctc App Con on 119.4
ILS 109.9 I–EVV Apch Brg 215° BC unusable **LOM:** 219/EV
Evansville (H) VORTAC 113.3/EVV 12.4NM to fld.

FT. WAYNE
§BAER FIELD *IFR* 6SSW FSS: FORT WAYNE on Fld.
801 H80/4-22(3) (S-90, T-120, TT-) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 22
Remarks: P-line apch rnwy 31. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9. Jet barrier rnwy 4–22.
Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6
Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.
ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW
Fort Wayne (H) BVORTAC 117.8/FWA on fld.
Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31
Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH FSS: SOUTH BEND

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§INDIANAPOLIS MUNI (Weir Cook) *IFR* 7SW
FSS: INDIANAPOLIS on Fld
797 H100/4-22(2) (S-100, T-150, TT-270) BL6,8A,9,10,11 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 **RVR:** Rnwy 4, 31[1]
Remarks: Fee multi-eng commercial acft.
Tower 120.9 126.2 122.5R 116.3T
Clrnc Del 125.7 **Gnd Con** 121.9
ATIS 109.3 110.5
Radar Services:
App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T **Dep Con** 121.1
Tfc Info Cct App Con on 118.5 or 118.1
PAR[2] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN
110.5 I–COA Apch Brg 313° **LOM:** 232/CO
(H) BVORTAC 116.3/IND 142° 6.1NM to fld.
RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4

INDIANA—*Continued*

VHF/DF ctc FSS.
Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI FSS: SOUTH BEND

KOKOMO (L) BVOR 109.8/OKK FSS: INDIANAPOLIS
RBn MHW 227/OKK

LAFAYETTE
§PURDUE UNIVERSITY *IFR* 1SW FSS: LAFAYETTE on fld
605 H54/10-28(2) (S35 T53 TT80) BL5 S3 F5 JP1
Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.
ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA
Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU FSS: TERRE HAUTE

MARION (T) BVOR 108.6/MZZ FSS: INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI FSS: FORT WAYNE

MUNCIE
§DELAWARE COUNTY (Johnson Fld) *IFR* 3N
FSS: INDIANAPOLIS (DL)
937 H51/14-32(2) (S-70, T-90, TT-150) BL4 S5 F4 JP1 U2
Remarks: P-line in NW apch 3480′ off end runwy 14.
Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9
Muncie (L) BVOR 113.7/MIE
Remarks: [1]Oper 1200–0400Z.

NABB (L) BVOR 113.5/ABB FSS: LOUISVILLE

RICHMOND (L) BVOR 110.6/RID FSS: DAYTON
RBn MHW 385/RID

SCOTLAND (L) BVORTAC 111.2/SCJ FSS: TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB FSS: INDIANAPOLIS

SOUTH BEND
§ST. JOSEPH COUNTY *IFR* 3NW FSS: SOUTH BEND on Fld
785 H60/9-27(4) (S-110, T-145, TT-) BL4,6,8A,9 S4 F5, JP1 U2 **RVV:** Rnwy 27
Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.
South Bend Tower 118.9 122.5R 115.4T 109.3T
Gnd Con 121.9
South Bend App Con 121.0 122.5R 115.4T 109.3T
VFR ADV: Ctc App Con on 121.0
ILS 109.3 I–SBN Apch Brg 269° **LOM:** 341/SB
South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.
VHF/DF ctc FSS.

TERRE HAUTE
§HULMAN FIELD *IFR* 5E FSS: TERRE HAUTE on Fld
585 H90/5-23(3) (S-100, T-150, TT-270) BL4,6 S3 F4, JP1 U2
Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18-36 clsd to acft over 25,000 lbs. Jet barrier rnwy 5–23.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 122.5R 118.3
VFR ADV Ctc App Con on 123.8
ILS 109.7 I–HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT FSS: LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK FSS: FT. WAYNE

IOWA

AMES RBn MHW 275/AMW FSS: DES MOINES
Remarks: Operd by city.

IOWA—*Continued*

ATLANTIC RBn MHW 365/AIO FSS: OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL FSS: BURLINGTON

§CEDAR RAPIDS MUNI *IFR* 5SSW FSS: CEDAR RAPIDS on Fld
863 H70/8–26(2) (S–100, T–135, TT–) BL4,6,8A,9,11 S–5
F4, TP–1 –JP1 U2 **REIL** Rnwy 26
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 119.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I–CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBN MHW 375/CCY FSS: MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN FSS: BURLINGTON

§DES MOINES MUNI *IFR* 3SW FSS: DES MOINES on Fld
957 H90/12–30(3) (S–100, T–180, TT–350) BL4,6,8A,9,11 S–5
F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17–35 closed to acft over 25,000 lbs.
DT Memorial Day—Labor Day.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi
Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I–DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ FSS: CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD FSS: MASON CITY

IOWA CITY (L) BVORTAC 111.0/IOW FSS: CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW FSS: DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK FSS: BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN FSS: DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW FSS: MASON CITY

NEOLA (L) BVORTAC 117.1/EOL FSS: OMAHA

NEWTON (L) BVOR 112.5/TNU FSS: DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM FSS: OTTUMWA

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

§SIOUX CITY MUNI *IFR* 6S FSS: SIOUX CITY CS/T
1097 H90/13–31(3) (Max 2.25) BL4,6,8A,9,11 S–5
F5, JP–1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 13
Remarks: First 1500′ rnwy 22 not visible to tower. Arresting gear rnwy 13–31.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I–SUX Apch Brg 307° **LOM:** 414/SU
VHF/DF ctc tower
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
Remarks: [1]LOM is MHW.

SPENCER RBn MHW 257/SPW

IOWA—*Continued*

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

§WATERLOO MUNI *IFR* 4NW FSS: WATERLOO on Fld
870 H54/12–30(3) (S–100, T–180, TT–305) BL4,8A,9 S–5
F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 125.8
App Con 125.8 122.5R 109.9T 108.2T
ILS[1] 109.9 I–ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN FSS: LACROSSE

KANSAS

ANTHONY (L) BVOR 112.9/ANY FSS: WICHITA

CHANUTE (L) BVOR 109.2/CNU FSS: CHANUTE

DODGE CITY (L)BVOR 108.2/DDC FSS: DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP FSS: EMPORIA

FORT RILEY (L) VORW 109.4/FRI FSS: SALINA
RBn MHW 317/FRI

GARDEN CITY (H) BVORTAC 113.3/GCK FSS: GARDEN CITY
RBn H–SAB 257 /GCK

GOODLAND (L) BVORTAC 115.1/GLD FSS: GOODLAND

HILL CITY (H) BVORTAC 113.7/HLC FSS: HILL CITY

§HUTCHINSON MUNI *IFR* 3E FSS: WICHITA (DL)
1542 H70/13–31(3) (S–50, T–65, TT–103) BL4,6,8A,9 S5 F4
JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Threshold rnwy 31 displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 125.5
App Con 125.5 122.5R 118.5 116.8T
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP FSS: CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE FSS: KANSAS CITY
746 H61/17–35(4) (S–30, T–50, TT–85) BL6 S5 F–5, JP–1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys.
Tower[3] 119.1 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Kansas City App Con 126.2 122.'7R 121.1[1] 118.9[2]
112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Operns 0600–2200 daily, during hrs twr not in 2200–0600 tfc adpisories will be furnished by Kansas City twr on 119.1

LIBERAL (H) BVOR 112.3/LBL FSS: GARDEN CITY
Remarks: To be BVORTAC Aug 19.

MANHATTAN (T) BVOR 110.2/MHK FSS: SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO FSS: SALINA

OSWEGO (L) BVOR 117.6/OSW FSS: JOPLIN

OTTAWA (L) VORW 111.6/TOE FSS: TOPEKA

PRATT RBn HW 356/PTT FSS: DODGE CITY

KANSAS—*Continued*

RUSSELL (L) BVOR 114.5/RSL FSS: RUSSELL

SALINA (H) BVORTAC 115.3/SLN FSS: SALINA

TOPEKA

§PHILIP BILLARD MUNI *IFR* 3NE **FSS:** TOPEKA on Fld
880 H51/13–31(3) (S–70, T–100, TT–175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
ILS[1] 109.5 I–TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

WICHITA

§BEECH *IFR* 5E FSS: WICHITA (DL)
1387 H50/18–36(3) F4
Remarks: Both apchs N–S rnwy restricted by polelines.
Tower[1] 119.9 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Operns 1400–2300Z Mon-Fri. Sat. 1300–1730Z. Clsd Sun and holidays.

§WICHITA MUNI *IFR* 5SW **FSS:** WICHITA on Fld
1332 H73/1–19(2) (S–100, T–188, TT–350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr 9NM NNW.
Tower 119.5 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
Wichita App Con 120.6 120.6 134.1 125.7 122.7R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I–ICT Apch Brg 011° **LOM:** 219/IC
(H) BVORTAC 113.8/ICT 162° 4.3NM to rnwy 14.
RBn SABH 332/ICT

KENTUCKY

ASHLAND RBn MHW 385/AKY **FSS:** HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG **FSS:** BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP FSS: BOWLING GREEN
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC FSS: LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT **FSS:** BOWLING GREEN

FALMOUTH (L) BVOR 109.0/FLM **FSS:** CINCINNATI

FORT KNOX (T) VOR 109.6/FTK FSS: LOUISVILLE
RBn MH 396/FTK

LEXINGTON

§BLUE GRASS FIELD *IFR* 5W **FSS:** LEXINGTON on Fld
978 H55/4–22(3) (S–95, T–128, TT–284) BL4,6,8A,9 S5 F5, JP-5 U2 **RVV:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.

KENTUCKY—*Continued*

Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd Con 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I–LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3NM to fld
Lexington RBn MHW 242/LE 042° 3.5NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ FSS: LONDON

LOUISVILLE

§BOWMAN FIELD *IFR* 5SE **FSS:** LOUISVILLE on Fld
549 H43/6–24(3) (Max 30) BL4,11 S–5 F–4, JP–4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

§STANDIFORD FIELD *IFR* 4S **FSS:** LOUISVILLE (DL)
497 H78/1–19(3) (S-60, T-90, TT-200) BL4,6,8A,9,14,15 S–4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1
Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7
Radar Services:
App Con 124.5 126.2 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I–SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I–LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF ctc tower
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS **FSS:** LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB **FSS:** HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO **FSS:** LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB **FSS:** EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK **FSS:** PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK **FSS:** HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG **FSS:** LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX **FSS:** ALEXANDRIA
RBn HW 251/AEX

BARKSDALE (L) VOR 114.8/BAD **FSS:** SHREVEPORT
RBn HW 379/BAD

BATON ROUGE

§RYAN *IFR* 4 N **FSS:** BATON ROUGE on Fld
70 H60/4–22 (3) (S–137, T–175, TT–340) BL4, 6, 11 S5 F4, JP5 U2 **REIL:** Rnwy 13
Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 119.7 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW
Tower 118.3 122.5R **Gnd Con** 121.9
Baton Rouge App Con 119.7 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT
Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (T) BVOR 108.8/ESF **FSS:** ALEXANDRIA

GRAND ISLE (H) BVOR 113.5/GNI **FSS:** NEW ORLEANS
RBn HH—SAB 236●/GNI

LOUISIANA—*Continued*

HARVEY (L) BVORTAC 112.4/HRV **FSS:** NEW ORLEANS

§LAFAYETTE MUNI ***IFR*** 2 SE **FSS:** LAFAYETTE on Fld
42 H51/1-19(2) (S-9, T-20, TT-30) BL4, 8A, 9, 11 S5 F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1
Tower 118.5 122.5R **Gnd Con** 121.7
Clrnc Del 121.7
App Con 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193° **LOM:** 257/LF
(L)BVORTAC 110.8/LFT 344° 3.0 NM to fld.
RBn BMH 375/LFT at fld.

§LAKE CHARLES MUNI ***IFR*** 3 S **FSS:** LAKE CHARLES on Fld
16 H65/15-33(2) (S-137, T-165, TT-350) BL4,5,6,8A, 9 S5 F4, JP4 **RVV:** Rnwy 15
Remarks: Rgt tfc rnwys 15 and 22.
Tower 120.7 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 113.4T 109.1T
ILS 109.1 I-LCH Apch Brg 148° **LOM:** 353/LC
(H)BVORTAC 113.4/LCH 252° 6.3 NM to fld.
RBn BH 242/LCH

§MONROE ***IFR*** 3 E **FSS:** MONROE on Fld
79 H50/4-22(3) (S-50, T-75, TT-135) BL4,6,8,9 S5 F4, JP4 U2
Remarks: Apch to runwys 17-35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 119.1 122.5R
ILS[1] 109.5 I-MLU Apch Brg 039° **LOM:** 219/ML
(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.
Remarks: [1]Glide slope unusable below 320′ MSL.

NEW ORLEANS

§NEW ORLEANS-LAKEFRONT ***IFR*** 4 NE **FSS:** NEW ORLEANS on Fld
10 H57/17-35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2
Remarks: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 290′ N. 4424′ avbl lndg rnwy 35. 4186′ avbl lndg rnwy 17. No ngt operns rnwy 8-26. 1046′ (1049′ MSL) TV twr 8 NM S. 1049′ MSL) TV twr 7 NM SE.
Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7
Radar Services:
New Orleans App Con 125.5 122.7R 118.1
New Orleans Dep Con 120.4

§NEW ORLEANS INTL-MOISANT FLD ***IFR*** 10 W
FSS: NEW ORLEANS (DL)
3 H92/10-28(3) (S-180, T-225, TT-425) BL4,6,8A,9,11,14,15 S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10
Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300-1700Z Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28 threshold displaced 720′ SW. Usable length rnwy 28—8507′; rnwy 10-9227′. 720′ E of rnwy 28 threshold usable tkof only with approval ctl twr.
Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9
Radar Services:
New Orleans App Con [1]125.5 122.7R 118.1 109.9T
New Orleans Dep Con 120.6
Tfc Info Ctc App Con on 125.5, for other arpts in or transversing the area ctc App Con on 118.1
ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.
Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.
Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.
ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS
New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.
New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 10.
VHF/DF available, contact tower.
Remarks: [1]Acft transitioning New Orleans NAS MCC freq 126.0 during above 5000′; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

SHREVEPORT

§GREATER SHREVEPORT ***IFR*** 4 SW **FSS:** SHREVEPORT on Fld
257 H73/13-31(2) (S-83, T-120, TT-201) BL4, 6, 8A, 9, F4 **RVV:** Rnwy 13
Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
Tfc Info Ctc App Con on 118.5
ILS 110.3 I-SHV Apch Brg 136X **LOM:** 230/SH
Remarks: LOM is H-SAB
Shreveport RBn[1] **SBH** 230/SHV 153° 3.6 NM to rnwy 14.

§SHREVEPORT DOWNTOWN ***IFR*** 2 N **FSS:** SHREVEPORT (DL)
179 H45/14-32(3) (S30) BL4 S5 F4
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
(T)VOR 108.6/DTN at fld.
Shreveport (H) BVORTAC 117.4/SHV 159° 13.9 NM to fld.

TIBBY (L) BVORTAC 112.0/TBD **FSS:** NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA **FSS:** LAFAYETTE

MAINE

AUGUSTA (L)BVORTAC 111.4/AUG **FSS:** AUGUSTA
RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR **FSS:** OLD TOWN
Rng SBRAZ 239/BW

BAR HARBOR RBn MHW 320/BHB **FSS:** OLD TOWN

BRUNSWICK (L)VOR 116.2/NHZ **FSS:** AUGUSTA
Rng MRLZ 368/NZ

HOULTON (L)BVOR 108.2/HUL **FSS:** HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE **FSS:** PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT **FSS:** MILLINOCKET
RBn H-SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU
Remarks: Owned and operd by Airport Commission.

§PORTLAND MUNI ***IFR*** 2W **FSS:** PORTLAND on Fld
66 H50/11-29(2) (S-94, T-116, TT-) BL 5, 6, 8A, 9, 10 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 29
Remarks: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27′ lctd at the end of rnwy and 800′ rgt cntrline. Lesser penetrations lctd 250′-430′ from end of rnwy and 720′-890′ left cntrline. 1890′-2180′ from end of rnwy and 900′-1090′ left cntrline.
Tower 120.9 122.5R 109.9T **Gnd Con** 121.9
App Con 120.9
ILS 109.9 I-PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI **FSS:** HOULTON

PRINCETON (L)BVOR 114.3/PNN **FSS:** HOULTON

ROCKLAND RBn MHW 353/RKD **FSS:** AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR **FSS:** HOULTON

WATERVILLE RBn MHW 375/AVI **FSS:** AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG **FSS:** WASHINGTON

ANDREWS (L)VORTAC 113.1/ADW

MARYLAND—*Continued*

BALTIMORE

§FRIENDSHIP INTL ***IFR*** 8 S **FSS:** WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–100, T–220, TT–500) BL6, 8A, 9, 10, 11
S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10
REIL rnwy 4, 22

Remarks: For Customs use gates A–14 and A–3. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turboprop due noise complaints.

Tower 118.7 122.7R 109.7T **Gnd Con** 121.9

Radar Services:
Baltimore App Con 119.7 125.9^{3}
Baltimore Dep Con 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.

ILS^{3} 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA
(L) BVORTAC 113.8/BAL on fld.

VHF/DF ctc tower

Remarks: ^{1}101°–281° ^{2}282°–100° ^{3}Glide slope unusable from 400′ inside MM to touchdown. **VOT:** 108.2..

CUMBERLAND RBn MHW 317/CBE **FSS:** MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK **FSS:** MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI **FSS:** WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV **FSS:** MORGANTOWN

HAGERSTOWN (L)BVOR 109.8/HGR **FSS:** MARTINSBURG

NOTTINGHAM (L)BVORTAC 116.0/OTT **FSS:** WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT **FSS:** SALISBURY

POOLESVILLE RBn MHW 280/PLV **FSS:** WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY **FSS:** SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL **FSS:** SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI **FSS:** WASHINGTON

MASSACHUSETTS

BEDFORD

§LAURENCE G HANSCOM FLD ***IFR*** 1 S **FSS:** BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11
S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29
REIL: Rnwys 23, 29 **RVV:** Rnwy 11

Remarks: 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. Jet barriers and arresting gear rnwy 11–29. FEE for commercial acft over 5000′ lbs.

Tower 118.5 122.5R **Gnd Con** 121.7

Radar Services:
Boston App Con 124.4
PAR Rnwy 11 Ceil 300 Vsby ¾ mi Min Alt 433
ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE

Bedford (L)VOR 116.0/BED on fld.

Bedford RBn HW 512/BE 112° 4.0 NM to fld.

VHF/DF contact tower.

Remarks: ^{1}GCA oper 1400–0400Z Mon–Sat. LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF **FSS:** BOSTON

BOSTON

§LOGAN INTL ***IFR*** 1 E **FSS:** BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A^{1}, 9^{2}, 10
S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L
RVV: Rnwy 22L

Remarks: FEE. Lndg threshold rnwy 4R displaced 2502′ to NE, 10,023′ avbl except lndg length toward NE restricted to 7521′ during IFR conditions and hrs of darkness. Rnwy 4L-22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. ^{1}Non-standard cntrline apch lgt sys. ^{2}Sequence flashers extend only 1200′.

Boston Tower 118.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7

Radar Services: (BCN)
Boston App Con ^{2}120.6 ^{1}126.5 126.2 124.4 122.5R 110.3T 382T
Boston Dep Con 119.1 124.4
PAR^{4} Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.
ILS 110.3 I–BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I–LIP^{3} Apch Brg 330° BC unusable **LOM:** 346/LI

Boston (H)VORTAC 112.7/BOS on fld.
Boston RBn H–SAB 382●/BOS 234° 1.0 NM to fld.
VHF/DF contact tower.

Remarks: ^{1}215-319° ^{2}320°-214° ^{3}Glide slope unusable below 219′ MSL. ^{4}Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR **FSS:** WINDSOR LOCKS

DEVENS RBn MHW 352/AVE **FSS:** BOSTON

FALL RIVER RBn MHW 395/FLR **FSS:** NANTUCKET

FITCHBURG RBn MHW 206/FIT **FSS:** BOSTON

GARDNER (L)BVORTAC 110.6/GDM **FSS:** WORCESTER

HYANNIS

§BARNSTABLE MUNI ***IFR*** 1 N **FSS:** NANTUCKET (DL)
52 H55/6–24(2) (S–63, T–110, TT–) BL5, 6, 8A, 9, 11
S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6

Remarks: Poles SE, SW. Rnwy 11–29 open for dalgt lndgs and tkoffs on pilot reg only, and W wind exceeds 14 knots.

Hyannis Tower 119.5 122.5R **Gnd Con** 121.9

Radar Services: (BCN)
Otis App Con 127.7 134.1 116.8T
Otis Dep Con 127.7
ILS^{1} 110.5 I–HYA Apch Brg 245° BC unusable **LOM:** 342/HY

Hyannis (L)BVORTAC 108.6HYA 241° 3.2 NM to rnwy 24.

Remarks: ^{1}Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM **FSS:** BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY **FSS:** NANTUCKET

§NANTUCKET MEMORIAL ***IFR*** 3 SE **FSS:** NANTUCKET on Fld
47 H50/6–24(2) (S–31, T–55, TT–) BL5, 6, 8A, 9 S3
F4 DT2 **RVV:** Rnwy 24

Tower ^{1}118.3 122.5R 109.1T **Gnd Con** 121.9

Radar Services: (BCN)
Otis App Con 118.2 134.1 116.8T
Otis Dep Con 118.2
ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC

Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.
VHF/DF: ctc FSS.

Remarks: ^{1}Oper 1200–0400Z advisory svc other times.

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§NEW BEDFORD MUNI ***IFR*** 2 NW **FSS:** NANTUCKET (DL)
79 H50/5–23(2) (S–63, T–110, TT) BL5,6,8, S5 F4 U2 DT2

Remarks: ILS apch zone for rnwy has unlgtd trees protruding above the 7 : 1 slope.

Tower 121.3 122.5R 109.7T **Gnd Con** 121.9

MASSACHUSETTS—*Continued*

Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I-EWB Apch Brg 053° **LOM:** 274/EW

NORWOOD RBn MHW 212/OWD FSS: BOSTON

PITTSFIELD RBn MHW 343/PSF FSS: ALBANY

PROVINCETOWN MHW 230/PVC FSS: NANTUCKET
Operd Mass Aero Comm

WESTFIELD
§**BARNES MUNI** ***IFR*** 3 N **FSS:** WINDSOR LOCKS (LC 739–7132)
270 H90/2-20(3) (S-63, T-110, TT-195) BL5, 6 S3 F4, JP4 DT2
Remarks: Jet barrier rnwy 2-20.
Westfield Tower[1] 121.3 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 124.1 134.1 109.2T 114.0T
Westover Dep Con: 124.1 134.1
Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 1200–0400Z.

WHITMAN (L)BVORTAC 109.0/HTM **FSS:** BOSTON

§**WORCESTER MUNI** ***IFR*** 3 W **FSS:** WORCESTER on Fld
1009 H70 (11-29(3) (S-137, T-180, TT-297) BL6, 7, 12 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: Rnwy 29 threshold displaced 150′.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I-ORH Apch Brg 332° BC unusable **LOM:** 282/OR
Remarks: [1]ILS rnwy 33 glide slope unusable below 1209′ MSL acct roughness 750′ inside MM to lndg threshold. Auto and manual apchs below the altitude not authorized.

MICHIGAN

ALPENA
§**PHELPS COLLINS** ***IFR*** 6 W **FSS:** PELLSTON (DL)
689 H90(18-36 (3) (S95–T125–TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: Rnwy 18 9000′ avbl lndg, 8000′ apbl tkoff. Rnwy 36 8000′ avbl lndg. Threshold displaced 1000′ rnwy 36. Jet barrier 1050′ S of apch end rnwy 18. GCA(ASR–PAR) VFR trng status for availability ctc twr, GCA civil freqs 118.5, 134.1 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5R
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN

BATTLE CREEK
§**W K KELLOGG REGIONAL AIRFIELD** ***IFR*** 3 W **FSS:** JACKSON (DL)
941 H70/4-22(4) (S-40, T-65, TT-115) BL4,6,8A,9 S5 F5 TP-1
Remarks: Rnwys 9-27, 18-36 clsd dur winter mos. E ramp S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR Adv Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I-BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141′ MSL. LOM is MHW.

BELLAIRE RBn HW 251/ATM **FSS:** TRAVERSE CITY

BENTON HARBOR RBn MHW 400/BEH **FSS:** SOUTH BEND
Remarks: Privately owned and operated. Public instr flt rule apch procedure predicated on facil.

BOYNE FALLS RBn MHW 263/BFA **FSS:** PELLSTON
Remarks: VFR use only.

MICHIGAN—*Continued*

CADILLAC RBn MHW 269/CAD **FSS:** TRAVERSE CITY

CARLETON (L)BVORTAC 115.7/CRL **FSS:** DETROIT

CHARLEVOIX RBn MHW 222/CVX **FSS:** PELLSTON

COLDWATER RBn MHW 224/CWM **FSS:** JACKSON

DETROIT
§**DETROIT CITY** ***IFR*** 5 NE AOE **FSS:** DETROIT on fld
626 H51/15R-33L(3) (S250 T-350 TT) BL4, 11 S5 F4, JP1 U2 **REIL:** Rnwy 15
Remarks: 1063′ (1749′ MSL) 1057′ (1738′ MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0
ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226
ILS 111.3 I-DET Apch Brg 146° BC unusable **LOM** 338/DE
Remarks. VOT: 109.8

§**DETROIT METROPOLITAN WAYNE** ***IFR*** 13 SW AOE **FSS:** DETROIT (DL)
639 H105/3L-21R (4) (S-200, T-200, TT-400) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R
REIL: Rnwy 3R
Remarks: Rnwy 15 threshold displaced 650′. Fee.
Metro Tower 121.1 126.2 122.7R 122.7R 109.3T 110.7T
‡Clrnc Del 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[2] 125.15[1] 123.7[3]
Metro Dep Con 118.4[1] 123.7[2]
Tfc Info Ctc 123.7, 1124.9 App Con.
ASR Rnwy 9, 3L, 3R, 21L, 27, 33 Ceil 400 Vsby 1 mi Min Alt 1039 Rnwy 21R Ceil 500 Vsby 1 mi Min Alt 1139
ILS 109.3 I-DTW Apch Brg 032° **LOM:** 388/DT
110.7[3] I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H-SAB 388●/DT 121°
Remarks: LOM is SAB. [1]001-180, [2]181-360, [3]ILS unusable for auto apchs below 400′ AGL. **VOT:** 109.0.

§**WILLOW RUN** ***IFR*** 19 SW **FSS:** DETROIT (DL)
716 H75/5-23(6) (S-60, T-90, TT-200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500′ rnwy 9L not visible from twr. 320′ overrun area SW end rnwy 5R-23L usable only tkoff rnwy 5R lndg rnwy 23L.
Tower 121.3 122.6R 109.5T 114.9T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro Dep Con 118.4 123.7
Tfc Info Ctc Metro App Con on 124.9 or 123.7
PAR[1] Rnwy 5R Ceil 200 Vsby ½ mi Min Alt 916.
Rnwy 5L Ceil 400 Vsby 1 mi Min Alt 1116.
ASR Rnwy 9L Ceil 600 Vsby 1 mi Min Alt 1316.
Rnwys 5L, 5R, 14, 36 Ceil 500 Vsby 1 mi Min Alt 1216.
Rnwys 18, 23L, 23R, 27L, 27R, 32 Ceil 400 Vsby 1 mi Min Alt 1116.
ILS 109.5 I-YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF contact tower.
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

ESCANABA (L) BVOR 110.8/ESC **FSS:** MARQUETTE (DL)

FLINT
§**BISHOP** ***IFR*** 3 SW **FSS:** LANSING (DL)
781 H56/9-27 (S-40, T-60, TT-110) BL4,5,6,8A,9 S5 F4 U2 **RVV:** Rnwy 9.

MICHIGAN—*Continued*

Remarks: Rnwy 18 threshold displaced 635′.
Flint Tower 119.5 126.3 122.5R 111.6T 109.9T
Gnd Con 121.9
VFR ADV Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

GAYLORD (T) BVOR 109.2/GLR **FSS:** PELLSTON
Remarks: VFR use only.

GRAND RAPIDS
§KENT COUNTY *IFR* 6 SE **FSS:** SAGINAW
793 H66/8–26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1 U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS 109.7 I–GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: Glide slope unusable below 970′ MSL.

GRAND MARAIS RBn HW 341/GMI **FSS:** MARQUETTE

GROSSE ILE RBn HW 414/NFB **FSS:** DETROIT

HOUGHTON (L)BVOR 112.8/CMX **FSS:** HOUGHTON
RBn H–SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT **FSS:** MARQUETTE

IRONWOOD (L)BVOR 108.8/IWD **FSS:** MARQUETTE

JACKSON
§REYNOLDS MUNI *IFR* 2W **FSS:** JACKSON on Fld
1000 H53/5–23(2) (S–60, T–80, TT–) BL5,11 S5 F4 U2
REIL: Rnwy 23 (1200–0400Z)
Remarks: Rnwy 5 threshold displaced 559′. Rnwy 31 threshold displaced 475′.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clrnc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
Jackson RBn MHW 281/JXN
Remarks: Twr oper 1200–0400Z. TACAN comsng delayed.

§KALAMAZOO MUNI *IFR* 1SE **FSS:** SOUTH BEND (DL)
874 H53/17–35(3) (S–30, T-50, TT85[1]) BL4,6,8A,9 S5 F4 JP5
Remarks: [1](S–40, T–65, TT–110) avail rnwys 5–23 & 9–27. 42′ lgt obstn lctd aprxly 1100′ S and 75′ W apch end rnwy 35 til aprxly August 1966.
Tower[1] 118.3 122.7R 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[2] 110.9 1–AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200–0400Z. [2]Glide slope unusable below 1062′.

KEELER (L) BVOR 115.1/ELX **FSS:** SOUTH BEND

KINCHELOE (L) VOR 108.6/INR
RBn MHW 410/IN **FSS:** SAULTE STE. MARIE

LANSING
§CAPITAL CITY *IFR* 3NW **FSS:** LANSING on Fld
859 H65/9–27(2) (S–30, T–40, TT) BL5,6,8A,11 S5 F4, JP1 **RVV:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037′ (1889′ MSL) twr 8 NM ESE and 1023′ (1923′ MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.

MICHIGAN—*Continued*

ILS 110.1 I–LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL **FSS:** TRAVERSE CITY

MARQUETTE (L) BVOR 109.0/MQT **FSS:** MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM **FSS:** GREEN BAY

MT. PLEASANT (L) BVOR 109.8/MOP **FSS:** SAGINAW

§MUSKEGON CO *IFR* 4S **FSS:** MUSKEGON on Fld
628 H56/14–32(3) (S–40, T–65, TT–110) BL6,8A,9 S5 F4 U2
RVR: Rnwy 32
Remarks: Rnwy 36 threshold displaced 300′. Rnwy 14 threshold displaced 300′.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 1–MKG Apch Brg 317° BC unusable **LOM:** 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828′ MSL.

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

PELLSTON (L) BVOR 111.8/PLN **FSS:** PELLSTON
RBn (H) 332/PLN

§PONTIAC MUNI *IFR* 5W **FSS:** DETROIT (DL)
974 H53/9–27(3) (S–40, T–65, TT–110) BL6 S5 F4 U2
Tower [1]120.5 122.5R 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK
Remarks: [1]Oper 0700–2300 lcl time.

PULLMAN (H) BVORTAC 112.1/PMM **FSS:** SOUTH BEND

REED CITY RBn MHW 275/RCT **FSS:** MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW **FSS:** SAGINAW on fld
667 H56/–5–23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF avail ctc FSS.
Remarks: [1]Oper 0700–2300 lcl time.

SALEM (L) BVORTAC 114.3/SVM **FSS:** DETROIT

§SAULT STE MARIE MUNI *IFR* 1SW AOE
FSS: SAULT STE MARIE on Fld
722 H50/14–32(1) BL5, 11 S3 F4
REIL: Rnwy 14.
VFR ADV: Ctc Kincheloe for APP CON/DEP CON on 119.0.
(H) BVORTAC 112.2/SSM 337° 4.2 NM to fld.
RBn H–SAB 400●/SSM 313° 2NM to fld.

SAWYER (H) VOR 117.5/SAW **FSS:** MARQUETTE
RBn HW 359/SAW

SELFRIDGE (L) VOR 113.4/MTC **FSS:** DETROIT

THREE RIVERS RBn MHW 407/HAI **FSS:** JACKSON

TRAVERSE CITY (L) BVOR 112.4/TVC **FSS:** TRAVERSE CITY
RBn H–SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC **FSS:** MUSKEGON

WHITEFISH (L) BVOR 116.6/FSP **FSS:** SAULT STE MARIE

MINNESOTA

ALEXANDRIA (L) BVOR) 112.8/AXN **FSS:** ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM **FSS:** ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE **FSS:** HIBBING

BEMIDJI (L) BVOR 108.6/BJI **FSS:** HIBBING

BRAINERD (L) BVOR 109.2/BRD **FSS:** ALEXANDRIA

MINNESOTA—*Continued*

DARWIN (L) BVORTAC 109.0/DWN **FSS:** MINNEAPOLIS

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§DULUTH INTL ***IFR*** 5NW (AOE) **FSS:** HIBBING
1429 H101/9–27(3) (S–80, T–112.5, TT–205) BL4,6,8A,9,10 F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9–27
Remarks: Jet barrier 2650′ from apch end rnwy 9 and 600′ from apch end rnwy 27. 1000′ overruns rnwy 9–27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I–DLH Apch Brg 087° **LOM:** 379/DLH
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H–SAB 379●/DLH 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H–SAB. [1]Glide slopes unusuable beyond 12NM.

EVELETH (T) BVOR 108.2/EVM **FSS:** HIBBING

FERGUS FALLS (T) BVOR 110.4/FFM **FSS:** ALEXANDRIA
Remarks: State owned. VFR use only.

FAIRMONT (T)BVOR 110.2/FRM **FSS:** MASON CITY
Remarks: VFR use only.

FARMINGTON (L) BVOR 115.7/FGT **FSS:** MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ **FSS:** HIBBING

HIBBING (L) BVOR 110.8/HIB **FSS:** HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL **FSS:** HIBBING

MANKATO (L) BVOR 110.8/MKT **FSS:** MINNEAPOLIS

MINNEAPOLIS

§CRYSTAL ***IFR*** 8NW **FSS:** MINNEAPOLIS (DL)
869 H32/13L–31(2) (S–21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Threshold rnwy 5L–23R displaced 400′ landing distance available 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600–2200.

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§FLYING CLOUD ***IFR*** 11SW **FSS:** MINNEAPOLIS (DL)
909 H36/9L–27R(3) (S–14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
(L) VOR 111.8/FCM at fld.
Remarks: [1]Oper 0600–2200.

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§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) ***IFR*** 6S **FSS:** MINNEAPOLIS on Fld
840 H100/11R–29L(3) (S–110, T–150, TT–270) BL6,8A,9,10,11 S5, F5 JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4 **RVV:** Rnwy 29L
REIL Rnwy 11R, 22
Remarks: First 1000′ NE end rnwy 4–22 clsd to non-mil acft. Rnwy 11L–29R threshold displaced 610′ SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4–22.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2
117.3T 111.8T 110.3T 109.3T 108.6T
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 300 Vsby ¾ mi Min Alt 1140
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I–MSP Apch Brg 295° **LOM:** 266/MS
109.3[1] I–APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H–SAB 266●/MSP 287° 2.4NM to fld.
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusable beyond 16 nmi. LOM is H-SAB. **VOT:** 111.0.

NODINE (H) BVORTAC 117.9/ODI **FSS:** LaCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD **FSS:** GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF **FSS:** REDWOOD FALLS

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§ROCHESTER MUNI ***IFR*** 7S **FSS:** ROCHESTER on Fld
1310 H64/13–31(2) (S–126, T–159, TT–260) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 31
Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.8
App Con 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I–RST Apch Brg 307° **LOM:** 254/RS
(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC **FSS:** MINNEAPOLIS
Remarks: VFR use only.

ST PAUL

§ST PAUL-DOWNTOWN ***IFR*** 1S **FSS:** MINNEAPOLIS (DL)
703 H55/12–30(3) S–54, T–87, TT–160) BL2,5,11 S5 F5, JP5 U2
REIL: Rnwy 30
Remarks: 4562′ avbl lndg rnwy 12. NE–SW rnwy used as txwy.
St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
117.3T 111.8T 110.3T 109.3T 266T
Minneapolis Dep Con 119.3
Tfc Info Ctc Minneapolis App Con on 126.5.
St Paul (T)VOR 108.6/STP 289° 4.6NM to fld.
Remarks: [1]Oper 1200–0400Z.

THIEF RIVER FALLS (L) BVOR 108.4/TVF **FSS:** GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

WILLMAR (T) BVOR 108.4/ILL **FSS:** REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA **FSS:** LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG **FSS:** REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS **FSS:** TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV **FSS:** MOBILE

GREENVILLE (T) BVOR 110.2/GLH **FSS:** GREENWOOD

MISSISSIPPI—*Continued*

GREENWOOD (H) BVORTAC 114.7/GRW FSS: GREENWOOD

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§GULFPORT MUNI *IFR* 3NE **FSS:** MOBILE (LC 436-4242)
28 H90/13-31(3) (S-80, T-120, TT-210) BL4,6 S5 F5, JP1 U2
Remarks: Arrest barrier in oper on Rnwy 13-31. J-bar avbl Rnwy 13-31 on 5 min notice. 1000′ overruns ea end Rnwy 13-31.
Tower 121.3 122.5R 109.0T **Gnd Con** 121.9
App Con 124.6 122.5R 109.0T
(L) BVORTAC 109.0/GPT on fld.

HATTIESBURG (L) BVORTAC 110.6/HBG **FSS:** McCOMB

HOLLY SPRINGS (L) BVOR 112.4/HLI **FSS:** MEMPHIS

JACKSON
§HAWKINS FIELD *IFR* 2NW **FSS:** JACKSON
343 H54/16-34(2) (Max 47) BL4,6 S5 F4 JP1 U2
Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW. SW 1615′ (1949′) twr 10 NM WSW.
Tower[2] 118.7 126.2 122.5R ~~121.5~~ 278T
Radar Services:
Jackson App Con 123.9[1] 125.2[2]
Jackson Dep Con 123.9 125.2
Jackson RBn H-SAB 260●/JAN 183° 2.3NM to fld.
Remarks: [1]333°-152°. [2]153°-332°. [3]1200-0400Z.

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§THOMPSON FIELD *IFR* 5E **FSS:** JACKSON on Fld
345 H85/15L-33R(2) (S-120, T-150, TT-265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.
Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7
Radar Services: (BCN)
Jackson App Con 125.2[1] 123.9[2]
Jackson Dep Con 125.2[1] 123.9[2]
ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745
Tfc Info: Ctc App Con
ILS[3] 110.5 I-JAN Apch Brg 153° **LOM:** 365/JA
Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.
VHF/DF ctc twr.
Remarks: [1]153°-332°. [2]333°-152°. [3]Glide slope unusable below 485′.

KEESLER RBn HW 391/BIX **FSS:** MOBILE

KEWANEE (L) BVOR 113.8/EWA **FSS:** MERIDIAN

LAUREL (L) BVOR 108.6/LUL **FSS:** MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB **FSS:** McCOMB

MERIDIAN
§KEY FIELD *IFR* 3SW **FSS:** MERIDIAN on Fld
297 H80/1-19(2) (S-45, T-120, TT-220) BL6 S3 F4, JP3
RVV: Rnwy 01
Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Jet barrier rnwy 1-19. Servicing Fee after 7 P.M.
Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Meridian App Con 120.5
Meridian Dep Con 124.8
ILS 110.1 I-MEI Apch Brg 004° BC unusable **LOM:** 356/ME
Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.
Remarks: [1]Twr opers 1300-0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ **FSS:** McCOMB

PICAYUNE (L) BVOR 112.2/PCU **FSS:** NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP **FSS:** MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR **FSS:** COLUMBIA

BLUE SPRINGS (L) BVORTAC 113.6/BSP **FSS:** KANSAS CITY

BUTLER (H) BVORTAC 115.9/BUM **FSS:** KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI **FSS:** CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI **FSS:** COLUMBIA

DOGWOOD (L) BVOR 109.4/DGD **FSS:** SPRINGFIELD

FARLEY RBN MHW 290/FRY **FSS:** KANSAS CITY

FARMINGTON (H) BVORTAC 115.7/FAM **FSS:** CAPE GIRARDEAU

FORNEY (L) VOR 110.0/TBN **FSS:** VICHY
RBn MH 391/TBN

HALLSVILLE (L) BVORTAC 115.4/HLV **FSS:** COLUMBIA

JEFFERSON CITY (L) BVOR 110.2/JEF **FSS:** COLUMBIA

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§JOPLIN MUNI *IFR* 4NE **FSS:** JOPLIN on Fld
980 H55(3) BL4,6 S5 F4 U1
Remarks: 999′ (2049′ MSL) twr 5 NM SSW.
ILS[1] 110.3 I-JLN Apch Brg 131° **LOM:** 219/JL
Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

KANSAS CITY
§MID-CONTINENT INTL *IFR* 15NW **FSS:** KANSAS CITY
1011 H90/18-36(1) (S-100, T-188, TT-350) BL6,8A,9
RVR: Rnwy 36
Tower 120.7 122.4R[3] **Gnd Con** 121.8
Radar Services:
Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
ILS 110.5 I-MCI Apch Brg 005° **LOM:** 359/MC
RBn H-SAB 359/MC 005° 4.4 to rnwy 36.
Remarks: [1]E sector. [2]W sector. [3]To be decomsnd July 15. LOM is H-SAB.

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§KANSAS CITY MUNI *IFR* 4N **FSS:** KANSAS CITY on Fld
758 H70/18-36(3) (S-110, T-165, TT-365) BL4,6,8A,9,11,13 S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36
Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.
Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
Dep Con 118.1
Tfc Info: Ctc App Con
PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.
ILS[3] 109.9 I-MKC Apch Brg 187° BC unusable **LOM:** 219/MK
(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.
Riverside (T) BVOR 111.4/RIS on fld.
VHF/DF contact tower.
Remarks: Acft approaching from 001-180° use 118.9 and/from 179°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. **VOT:** 108.6.

KIRKSVILLE (H) BVORTAC 114.6/IRK **FSS:** KIRKSVILLE

LAKE RBn HW 385/LAQ **FSS:** ST. LOUIS

MACON (L) BVOR 112.9/MCM **FSS:** KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW **FSS:** CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP **FSS:** VICHY

MARSHALL (L). BVOR 109.6/MHL **FSS:** COLUMBIA

MISSOURI—*Continued*

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS FSS: ST LOUIS

NEOSHO (L) BVOR 116.6/EOS FSS: JOPLIN

READSVILLE (L) BVOR 112.0/REA FSS: COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW FSS: KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW FSS: ST. LOUIS

ST JOSEPH
§ROSECRANS MEMORIAL *IFR* 3WNW FSS: KANSAS CITY (DL)
826 H80/17–35(3) (S–60, T–160, TT–250) BL4,6,8 S5 F4
RVV: Rnwy 35
Tower 119.9 122.5R **Gnd Con** 121.9
Kansas City App Con 121.1 126.2 122.7R 118.9
Kansas City Dep Con 118.1
ILS[1] 110.3 I–STSJ Apch Brg 352° **LOM:** 260/ST
(L) BVORTAC .108.2/STJ 167° 10.7NM to fld.
Remarks:[1] ILS unusable below 1060′

ST. LOUIS
§LAMBERT-ST LOUIS *IFR* 10NW FSS: ST. LOUIS on Fld
571 H100/12R–30L(4) (S–100, T–200, TT–400) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24
Remarks: Arresting gear rnwy 12R–30L. Threshold lgts permly relctd 476′ SE apch end rnwy 12R.
St. Louis Tower 118.5 126.2 122.7R **Gnd Con** 121.9
‡Clrnc Del 119.5
Radar Services:
St. Louis App Con 126.5[1] 123.7 118.1[2] 117.4T 110.3T 109.7T **St. Louis Dep Con** 119.9
Tfc Info Ctc St. Louis App Con.
PAR[4] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I–STL Apch Brg 238° **LOM:** 404/ST
109.7 I–LMR Apch Brg 117° **LOM:** 338/LM
VHF/DF available, contact tower.
St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.
St. Louis RBn (H–SAB) 338●/LM 117° 5.3NM to fld.
Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [4]Radar monitoring of instrument apchs only at pilot's request.
VOT: 111.0 LOM is H–SAB.

§ SPIRIT OF ST. LOUIS 20W FSS: ST. LOUIS (DL)
462 H51/7–25(1) (S–30) BL6 S5 F4 DT2
Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, ldgs not authorized.
Tower[1] 121.3 122.5R 121.5X **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.
Remarks: [1]Opers 1200–0300Z. [2]Southeast arrivals. [3]Northwest arrivals.

§SPRINGFIELD MUNI *IFR* 5NW FSS: SPRINGFIELD on Fld
1267 H56/1–19(2) (S–65, T–95, TT–165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1
Tower 119.9 122.5R **Gnd Con** 121.9
VFR ADV 125.8
App Con 125.8 122.5R 116.9T 109.9T
ILS[1] 109.9 I–SGF Apch Brg 015° **LOM:** 404/SG
(H) BVORTAC 116.9/SGF 193° 6.8NM to fld
RBn H–SAB 254●/SGF 137° 3.6NM to fld
VHF/DF: ctc FSS.
Remarks: [1]Glide slope unusable below 1325 ft MSL.

VICHY (L) BVORTAC 117.7/VIH FSS: VICHY

WHITEMAN (L) VOR 109.0/SZL FSS: COLUMBIA
RBn HW 314/SZL

MONTANA

BILLINGS
§LOGAN FIELD *IFR* 2NW **FSS:** BILLINGS on Fld
3606 H86/9–27(3) (S–130, T–200, TT–400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9
Remarks: 1000′ overrun each end rnwy 9–27.
Billings Tower 118.3 122.5R
VFR ADV: 120.5
Billings Gnd Con 121.9
Billings App Con 120.5 122.5R 114.5T 110.3T
ILS[1] 110.3 I–BIL Apch Brg 095° **LOM:** 251/BI
Billings (H) BVORTAC 114.5/BIL 070° 3.2NM to fld
Billings RBn H–SAB 400 /BIL 243° 1.4NM to fld
VHF/DF: Avail ctc FSS.
Remarks: [1]Not approved for auto apchs.

BOZEMAN (L) BVOR 112.2/BZN **FSS:** BOZEMAN
RBn H–SAB 329●/BZN

BUTTE (L) BVORTAC 111.6/BTM **FSS:** BUTTE

CUT BANK (L) BVOR[2] 114.4/CTB **FSS:** CUT BANK
RBn[1] **BH** 263/CTB
Remarks: [1]VFR use only.

DILLON (H) BVORTAC 113.0/DLN **FSS:** DILLON
RBn[1] **BH** 379/DLN
Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU **FSS:** MISSOULA

GLASGOW (H) VOR 113.9/GSG **FSS:** MILES CITY
RBn H 236/GSG

§GREAT FALLS INTL *IFR* 3SW **FSS:** GREAT FALLS on Fld
3671 H90/3–21(4) (S–60, T–80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34
Remarks: Rnwy 7–25 not authorized to acft over 64,000 lbs GWT. Jet barrier rnwy 3–21.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1 119.3 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.1 119.3 or 122.7R
ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171
ILS 110.3 I–GTF Apch Brg 341° BC unusable **LOM:** 407/GT
(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld
RBn H-SAB 371/GTF 009° 0.9 NM to fld

§HELENA *IFR* 2NE **FSS:** HELENA on Fld
3873 H70/8–26(3) (S–90, T–120, TT–200) BL 5,11 S5 F4, JP1 U2 **REIL** rnwy 26
Remarks: Rnwy 11–29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
(H) BVORTAC 117.7/HLN at fld.
RBn SBH 317/HLN VFR use only.

KALISPELL (L) BVOR 108.4/FCA **FSS:** MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT **FSS:** LEWISTOWN
RBn[1] **SBH** 353/LWT
Remarks: [1]VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM **FSS:** LIVINGSTON
RBn[1] **BH** 224/LVM
Remarks: [1]VFR use only.

MALMSTROM (L) VOR 116.3/GFA **FSS:** GREAT FALLS

MILES CITY (H) BVORTAC 112.1/MLS **FSS:** MILES CITY
Rbn (H–SAB) 320 /MLS

MONTANA—*Continued*

§MISSOULA CO *IFR* 4NW **FSS:** MISSOULA on Fld
3203 H-70/11-29(3) (S-120, T-155, TT-235) BL6 S5 F4 U2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1]Oper 1300-0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA **FSS:** BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA **FSS:** SCOTTSBLUFF
RBn[1] **HW** 287/AIA
Remarks: [1]Owned by State.

BEATRICE (T) BVOR 110.6/BIE **FSS:** LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR **FSS:** CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

COLUMBUS (T) BVOR 110.4/OLU **FSS:** LINCOLN
Remarks: Owned by State.

§GRAND ISLAND MUNI *IFR* 4NE **FSS:** GRAND ISLAND on Fld
1846 H72(3) (S-42, T-65, TT-125) BL5,6,8A,9 S5 U-1 F5, JP-1
Remarks: 1000' asphalt overrun both ends rnwy 17-35. BAK/12 arresting gear lctd 90' in overrun rnwy 35 and 80' in overrun rnwy 17.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1]Oper 1200-0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI **FSS:** GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT **FSS:** IMPERIAL

HOLDREDGE RBn HW 396/HDE **FSS:** GRAND ISLAND
Remarks: Owned by State.

IMPERIAL RBn BH 353/IML **FSS:** IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN **FSS:** SIOUX CITY CS/T

KEARNEY (T) VOR 111.2/EAR **FSS:** GRAND ISLAND
Remarks: Owned by state.

§LINCOLN MUNI/AFB *IFR* 4NW **FSS:** LINCOLN on Fld
1198 H129/17R-35L(2)[1] (Max-15) BL6,8A,9,11 S5
F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: [1]All civ acft use 4000' rnwy 17L-35R except Max 30, BL6 in actual IFR conditions or when acft manufacturers' recommendations rqr the use of rnwy 17R-35L. Ctn-jet tfc. Rnwy 17L-35R (S-31, T-50, TT-87)
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I-LNK Apch Brg 351° **LOM:** 385/LN
RBn MHW 385/LN
Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC.

McCOOK (L) BVOR 110.0/MCK **FSS:** NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK **FSS:** OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF **FSS:** NORTH PLATTE
RBn H-SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD *IFR* 3NE **FSS:** OMAHA on Fld
983 H85/14-32(2) (S-180, T-200, TT-400) BL4,6,8A,9,11,12

NEBRASKA—*Continued*

S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: US Customs lndg rgts arpt.
Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R
Omaha Dep Con 124.5 118.0
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I-OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H-SAB 320●/OM 140° 4.4 NM to fld.
Remarks: [1]BC unusable beyond 16 NM.

O'NEILL (H) BVORTAC 113.9/ONL **FSS:** GRAND ISLAND

OSHKOSH RBn (HW) 233/OKS
Remarks: Owned by State.

PAWNEE CITY (H) BVORTAC 112.4/PWE **FSS:** LINCOLN

RAYMOND (L) BVORTAC 116.0/RAY **FSS:** LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF **FSS:** SCOTTSBLUFF
RBn MHW[1] 341/BFF
Remarks: [1]Operd by State.

SIDNEY (H) BVOR 115.7/SNY **FSS:** SIDNEY

VALENTINE RBn HW 314/VTN **FSS:** OMAHA (day)
Remarks: [1]Operd by State.

WOLBACH (H) BVORTAC 114.7/OBH **FSS:** GRAND ISLAND

NEVADA

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM **FSS:** ELKO

BEATTY (H) BVORTAC 114.7/BTY **FSS:** TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD **FSS:** LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL **FSS:** TONOPAH

CURRANT (L) BVOR 113.4/URR **FSS:** ELY

ELKO (L) BVORTAC 114.5/EKO **FSS:** ELKO
RBn SABH 391/EKO

ELY (L) BVOR 110.6/ELY **FSS:** ELY

HAZEN (L) BVORTAC 114.1/HZN **FSS:** LOVELOCK

INDIAN SPRINGS RBn HW 215/INS **FSS:** LAS VEGAS

LAS VEGAS
§McCARRAN *IFR* 5S **FSS:** LAS VEGAS on fld.
2171 H125/7-25(3) (S-100, T-200, TT-380) BL4,6,10 S5
F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750'W end. 11,795' avbl lndg rnwy 7 and tgof rnwy 25 day/ngt. 12545' avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625' SW end. 6878' avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503' avbl lndg rnwy 19 and tgof rnwy 1 day/ngt . Rnwy 32 threshold displaced 379' SE end. 4021' avbl rnwy 32 day/ngt. 4400' avbl tkof rnwy 32 day only. 4021' avbl tkof rnwy 32 ngt only. 4400' avbl lndg rnwy 14 day only. 4021' avbl lndg rnwy 14 ngt only. 4021' avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 125.9 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H-SABZ 206●/LAS 196° 8.5 NM to rnwy 19.

NEVADA—*Continued*

LOVELOCK (L) BVORTAC 116.5/LOL FSS: LOVELOCK

MERCURY RBn HW 326/MCY FSS: LAS VEGAS

MINA (L) BVOR 113.1/MVA FSS: TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM FSS: LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO FSS: LOVELOCK

§RENO MUNI *IFR* 2SE FSS: RENO on Fld
4411 . H90/16-34(2) (S-100, T-200, TT-350) BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: A-gear each threshold rnwy 16–34.
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 254T
ILS 109.3 I-RNO Apch Brg 162° **LMM:** 254/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn SBH 254/RNO 161° 2.3NM to fld.
Remarks: LMM is SBH.

SOD HOUSE (L) BVOR 114.3/SDO FSS: LOVELOCK

SPARKS RBn MHW 329/SPK FSS: RENO

TONOPAH (L) BVORTAC 117.2/TPH FSS: TONOPAH

WELLS (L) BVOR 114.2/LWL FSS: ELKO

WILSON CREEK (H) BVOR 116.3/ILC FSS: CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML FSS: CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON FSS: CONCORD

KEENE (L) BVOR 109.4/EEN FSS: CONCORD
RBn MHW[1] 224/EEN
Remarks: [1]Oper by State.

LACONIA RBn MHW 400/LCI FSS: MONTPELIER
Remarks: Oper by State.

LEBANON (L) BVOR 113.7/LEB FSS: LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) *IFR* 4S FSS: CONCORD (LC 669-1641)
233 H70/17-35(2) (S-127, T-200, TT-400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower[1] 121.3 126.2 122.5R
ILS 108.3 I-MHT Apch Brg 352°
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW[2] 338/MHT 352° 3.5NM to fld.
Remarks: [1]Oper 1000–0300Z. [2]Oper by State.

NASHUA RBn MHW 260/AMH FSS: CONCORD (LC 889–0301)
Remarks: Oper by State.

NORTH CONWAY RBn MHW 334/CWN FSS: CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR
Remarks: To be in common system.

WHITEFIELD RBn MHW 272/HIE FSS: LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) *IFR* 9NW FSS: MILLVILLE (LC 399–8096)
76 H100/13-31(4) (S–63, T–88, TT-160) BL4,6,8A,9 S3 F5, JP4 DT2
Remarks: Fee. BAK/9 arresting gear installed 2000′ from threshold rnwy 13 and 1000′ from threshold rnwy 31. Pendant 1½″ steel cable stretched across rnwy 31; ½–4″ above surface with rubber doughnuts extending 6″ above surface. Pendant may gyrate. Unlgtd frangible distance to go mrkrs every 1000′ each side rnwy 13–31.
Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I-ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlantic City NAFEC (L) VORTAC[2] 108.6/ACY at NAFEC
VHF/DF contact tower.
Remarks: [1]400 authorized for rnwys 13,17, 22, 26, 31. [2]DME unsuitable for apchs.

BARNEGAT (L) BVOR 116.7/BGT **FSS:** MILLVILLE

CHATHAM RBn MHW 254/CAT **FSS:** NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL **FSS:** TETERBORO

COYLE (H) BVORTAC 113.4/CYN **FSS:** MILLVILLE

LAKEHURST RBn HW 396/NEL **FSS:** N. PHILADELPHIA

MILLVILLE (L) BVORTAC 115.2/MIV **FSS:** MILLVILLE
Rng SBRAZ 363/MV

§MORRISTOWN MUNI *IFR* 2E **FSS:** TETERBORO (LC JE8-2196)
187 H40/4–22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 800′ rnwy 22. Ngt trng flts by nonbased acft prohibited. Due obstns, ramp and txwys not ctld by twr.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6[2] 124.3[3] 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: [1]Oper 1200–0400Z. [2]270–089° [3]090–269°

§NEWARK MUNI *IFR* 2 S **FSS:** TETERBORO (DL)
18 H70/4–22(2) (S–115, T-200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE.
Tower 118.3 126.2 122.7R 110.3T 109.3T 109.1T
‡Clrnc Del 121.4 **Gnd Con** 121.9
ATIS: 109.1 or 110.3 (Arr)
Radar Services: (BCN)
App Con 120.6 [2] 124.3 [3] 122.7R 110.3T 109.3T
Dep Con 119.2 127.6
Tfc Info Inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I-EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW[4]
109.1 I-EWR Apch Brg 217° **LOM:**242/AR
RBn H-SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF contact tower.
Remarks: [1]Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix [2]270–089° [3]090–269° [4]LOM unusable beyond 12 mi 050-090°. **VOT:** 108.6

PATERSON RBn MHW 347/PNJ **FSS:** TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV **FSS:** N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE **FSS:** MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ **FSS:** TETERBORO

SPARTA (L)BVORTAC 112.3/SAX **FSS:** TETERBORO

STILLWATER (L) BVORTAC 109.6/STW **FSS:** TETERBORO

NEW JERSEY—*Continued*

§TETERBORO MUNI *IFR* 1 SW **FSS:** TETERBORO on Fld
7 H50/6–24(3) S–50, T–80, TT–) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission. Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14–32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I–TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY *IFR* 4 NW **FSS:** N. PHILADELPHIA (LC. 882–1590)
213 H52/6–24(3) S–31.5, T–51, TT–) BL4,11,12,[1] S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. [1]1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R 109.3T
Philadelphia Dep Con 119.0[1] 128.55[2]
ILS 111.3 I–TTN Apch Brg 065° **LOM:** 369/TT
Remarks: [1]270–089°. [2]090–269°.

WOODSTOWN (L)BVOR 112.8/OOD **FSS:** MILLVILLE

NEW MEXICO

ALAMOGORDA RBn HWZ 375/ALM **FSS:** ROSWELL

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE **FSS:** ALBUQUERQUE on Fld
5352 H127/8–26(4) (S–100, T–155, TT–445) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVR:** Rnwy 35
Remarks: Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC–3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
Gnd Con 121.9
Clrnc Del 119.2
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
Albuquerque Dep Con 121.1
Tfc Info Ctc App Con 25 mi out on 123.9.
PAR[2] Rnwy 8[1] Ceil 300 Vsby ¾ mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I–ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: [1]500–1½ rqrd for civil jet acft. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO (L)BVOR–DME 110.0/ACH **FSS:** LAS VEGAS

CANNON (L) VORW 115.7/CVS **FSS:** TUCUMCARI
RBn HW 272/CVS

CARLSBAD (L)BVOR 116.3/CNM **FSS:** CARLSBAD

CIMARRON (H) BVORTAC 116.4/CIM **FSS:** TRINIDAD

COLUMBUS (L) BVORTAC 111.2/CUS **FSS:** DEMING

CORONA (L) BVOR 115.5/CNX **FSS:** ALBUQUERQUE

DEMING (L) BVOR 108.6/DMN **FSS:** DEMING

§FARMINGTON MUNI *IFR* 2 NW **FSS:** FARMINGTON of Fld
5503 H67(2) (Max–60) BL4 S5 F4 U2
Tower[1] 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF: ctc FSS.
Remarks: [1]Oper 1300–0500Z.

GALLUP (H)BVORTAC 115.1/GUP **FSS:** ZUNI

GRANTS (L)BVORTAC 116.5/GNT **FSS:** GRANTS

§HOBBS, LEA COUNTY *IFR* 4 W **FSS:** HOBBS on Fld
3659 H63/3–21 (4) (S–115 T–200 TT–400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN (L)VORW 115.8/HMN **FSS:** ROSWELL

LAS VEGAS (H) BVORTAC 117.3/LVS **FSS:** LAS VEGAS

OTTO (L) BVOR 114.0/OTO **FSS:** ALBUQUERQUE

PINON (L) BVOR 110.4/PIO **FSS:** EL PASO

§ROSWELL MUNI *IFR* 1 NW **FSS:** ROSWELL on Fld
3623 H58/17–35(4) (S–42, T–60, TT–110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 120.2 122.7R
Walker Dep Con 123.8
Tfc Info Ctc Walker App Con 30 mi out at 10,000′ and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn BH 305/ROW 312° 7.9 NM to fld.
Remarks: [1]Oper 1300–0500Z.

§SANTE FE COUNTY MUNI *IFR* 9 SW **FSS:** SANTA FE on Fld
6344 H83/2–20 (3) (S–45, T–60, TT–) BL4 S5 F4, JP1 U2
Tower 126.2 122.5R 119.5 **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO (H) BVORTAC 116.8/ONM **FSS:** ALBUQUERQUE

TAOS (L) BVOR 117.6/TAS **FSS:** SANTA FE

TRUTH OR CONSEQUENCES (H) BVORTAC 112.7/TCS **FSS:** TRUTH OR CONSEQUENCES

TUCUMCARI (H) BVORTAC 113.6/TCC **FSS:** TUCUMCARI

WALKER RBn MHW 396/LK **FSS:** ROSWELL

ZUNI (L) BVORTAC 113.4/ZUN **FSS:** ZUNI

NEW YORK

§ALBANY COUNTY *IFR* 6 NW AOE **FSS:** ALBANY on Fld
288 H50/1–19 (3) (S–110, T–200, TT–400) BL4, 6, 8A, 9 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S, trees SE. Rnwy 15–33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I–ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: VOT: 109.0

ALPINE RBn MHW 245/ALP **FSS:** ELMIRA

AVON RBn MHW 344/AVN **FSS:** ROCHESTER

BABYLON RBn MHW 275/BBN **FSS:** NEW YORK

BECKSGROVE RBn MHW 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY *IFR* 7 N **FSS:** BINGHAMTON on Fld
1629 H56/16–34(2) (S–94.5, T–135, TT–) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34

NEW YORK—*Continued*

Binghamton Tower 119.3 122.5R 114.3T 112.1T
Gnd Con 121.9
Radar Services: (BCN)
Binghamton App Con 118.6 **Binghamton Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I-BGM Apch Brg 338° BC unusable **LMM:** 203/GM
Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.
Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO

§GREATER BUFFALO INTL ***IFR*** 5 E AOE FSS: BUFFALO on Fld
722 H81/5-23(2) (S–120, T–180, TT–400) BL4, 6, 11 S5 F5, JP1, JP4, JP5 DT2
Remarks: Fee.
Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7
Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7 110.3T
Buffalo Dep Con 125.5
Tfc Info Inbnd acft ctc Buffalo App Con on 126.5 orr 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 110.3 I-BUF Apch Brg 052° BC unusable. **LOM:** 204/GB
Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld
Buffalo RBn BH 260/BUF 211° 0.9 nm to fld
VHF/DF contact Buffalo App Con
Remarks: VOT: 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM FSS: GLENS FALLS

CANARSIE (T) VORW 111.0/CRI FSS: JFK TWR

CARMEL (L) BVORTAC 116.6/CMK FSS: TETERBORO

DEER PARK (L) VORTAC 111.2/DPK FSS: NEW YORK

DE LANCEY (L) BVOR 112.1/DNY FSS: BINGHAMTON CS/T

DUNKIRK (L) BVOR 114.2/DKK FSS: BUFFALO

ELMIRA

§CHEMUNG COUNTY ***IFR*** 5 NW FSS: ELMIRA on Fld
951 H56/6-24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2
Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.5 122.5R 120.0[1]
ILS 109.1 I-ELM Apch Brg 239° BC restricted
Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.
Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.
Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE FSS: BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT FSS: UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL FSS: GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO FSS: NEW YORK

HANCOCK (L) BVORTAC 109.0 HNK FSS: BINGHAMTON CS/T

HUGUENOT (H) BVORTAC 116.1/HUO FSS: WILKES-BARRE

ISLIP

§LONG ISLAND–MacARTHUR ***IFR*** 7 NE FSS: NEW YORK on Fld
98 H50/6-24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6
Remarks: Trees E.
Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7
Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4

NEW YORK—*Continued*

Kennedy Dep Con 123.9[1] 134.1 121.1[2]
ILS 108.3 I-ISL Apch Brg 057° **LOM:** 366/IS
VHF/DF: ctc FSS.
Remarks: [1]054–110°. [2]110–160°.

ITHACA (L) BVOR 111.8/ITH FSS: ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW FSS: BRADFORD

KINGSTON (L) BVOR 117.6/IGN FSS: POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS FSS: MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF FSS: POUGHKEEPSIE
RBn MHW 335/SWF

NEW YORK

§JOHN F KENNEDY INTL ***IFR*** 11 SE FSS: NEW YORK (DL)
12 H146/13R-31L(5) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 13L, 13R
RVR: Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]
Remarks: Fee. Clsd to fightertype, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R–31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3324′. Rnwy 7–25 clsd duration winter due constrn. Rnwy 4L–22R extended to 11,350′ with lndg threshold rnwy 22R displaced 3020′. Rnwy 13L displaced threshold usable length 7739′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Nonstandard. Lead in lgts rnwys 13L and 13R.
Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡Clrnc Del 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5
Radar Services: (BCN)
Kennedy App Con 127.4 134.1 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
PAR Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 22R Ceil 500 Vsby 1 mi Min Alt 512.
Rnwys 31R Ceil 400 Vsby 1 mi Min Alt 412.
ILS 109.5 I-JFK Apch Brg 042° **LOM:** 373/JF[4]
110.9 I-IWY Apch Brg 222° **LOM:** 226/IW
111.5 I-RTH[3] Apch Brg 311° BC unusable. **LOM:** 268/RT
Kennedy (H) BVORTAC 115.9/JFK on fld.
Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.
VHF/DF[1] contact Tower.
Remarks: [1]054–110°, [2]110°–160°. [3]Glide slope shutdown until July 1. [4]LOM is MHW. **VOT:** 112.5.

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§LA GUARDIA ***IFR*** 4E FSS: TETERBORO (DL)
21 H70/4-22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4
REIL: Rnwy 13–31, 22
Remarks: Fee. Rnwy threshold displaced 175′ NW. 5813′ avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. Rnwy 4 clsd to turbo jet acft lndg. Rnwy 22 clsd to turbojet acft tkof. 1465′ (1520′ MSL) twr 5 NM WSW. Mag anomalies may affect compass heading when using extensions rnwys 13 and 22 for tkof.
FAA Dep Proc: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
Tower 118.7 122.7R 113.1T 109.9T 108.5T 110.5T
‡Clrnc Del 126.15 **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 1085T 110.5T
Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [1]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.

NEW YORK—*Continued*

ILS 109.9 I-LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I-GDI[1] Apch Brg 134° **LOM:** 233/GD[5]
110.5 I-URD[3] Apch Brg 223° BC unusable **LOM:** 385/UR
La Guardia (L) VOR-DME 113.1/LGA 177° 0.4 NM to fld
VHF/DF contact App Con.
Remarks: Flwg shut down indef due arpt constrn: Rnwy 22 apch lgts; Rnwy 4 ILS, PAR adv svc to Rnwy 22. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000–3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235–245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. [5]To be comsnd June 30.
VOT: 109.0.

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§NIAGARA FALLS MUNI ***IFR*** 4 E **FSS:** BUFFALO (DL)
590 H91/10L-28R(4) (S-90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
Remarks: No signal SS-SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.
Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5 110.3T 278T
Buffalo Dep Con 125.5
ILS 110.1 I-IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF contact tower.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200–0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

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§ROCHESTER-MONROE CO ***IFR*** 3 SW AOE
FSS: ROCHESTER on Fld
560 H70/4-22(5) (S-126, T-160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS-SR to indicate IFR conditions.
Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I-ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I-MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON CS/T

ROME RBn HW 212/RME **FSS:** UTICA

SARANAC LAKE (L) BVOR 111.2/SLK **FSS:** MASSENA

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§SCHENECTADY COUNTY ***IFR*** 2 N **FSS:** ALBANY (DL)
378 H70/4-22(3) (S-52) BL4, 6 S5 F5, JP5 DT2
Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr. Rnwy 28, 15 and 33 apch restricted by trees.
Tower[1] 126.2 121.3 1225R 356T
Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF ctc twr.
Remarks: Opers 1200–0400Z.

SYRACUSE
§HANCOCK ***IFR*** 4 NE **FSS:** SYRACUSE on Fld
421 H90/10-28(3) (S-120, T-190, TT-350) BL4, 6, 8A, 9, 14 S5 F5, JP4 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 6-24 limited to acft under 12,500 lbs GWT.
Syracuse Towerr 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 125.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I-SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY ***IFR*** 7 NW **FSS:** UTICA on Fld
742 H60/15-33(2) (S-60, T-80, TT) BL4, 6, 8A, 9 S5 F2 U2 DT2 **RVV:** Rnwy 33.
Remarks: Rgt tfc rnwys 9 & 15.
Utica Tower 118.1 122.5R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.5R
Griffiss Dep Con 120.9
ILS 109.3 I-UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WESTHAMPTON BEACH
SUFFOLK COUNTY (T) VOR 110.4/FOK **FSS:** NEW YORK

WHITE PLAINS
§WESTCHESTER COUNTY ***IFR*** 3NE **FSS:** NEW YORK
439 H65/16-34(3) (S-63, T-110, TT-275) BL4, 8A, 9 S5 F5, JP5 U2 DT2
Remarks: Trees NW, SE. Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I-HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI ***IFR*** 9 S **FSS:** GREER (LC 684-4401)
2161 H65/16-34(1) (S-100, T-160, TT-275) BL6,8A,9,10 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.
Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I-AVL Apch Brg 342° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA **FSS:** ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB **FSS:** WILMINGTON CS/T

NORTH CAROLINA—*Continued*

CHARLOTTE
§DOUGLAS MUNI ***IFR*** 4 W FSS: HICKORY (LC 332-8161)
748 H78/18-36 (2) (S-60) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932′ MSL) twr 10 NM ENE. Rnwy 18 threshod displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148
ILS[2] 109.5 I-CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L) BVORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. **VOT:** 112.0

COFIELD (L) BVORTAC 114.4/CVI FSS: ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG FSS: ELIZABETH CITY

FAYETTEVILLE
§GRANNIS FIELD ***IFR*** 3 S FSS: FAYETTEVILLE on Fld
189 H50/3-21(2) (S-64, T-120, TT-200) BL4,6,8A,9 S5 F4, JP4
RVV: Rnwy 3
Remarks: Trees NNW, SSE.
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I-GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB FSS: ROCKY MOUNT

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG FSS: ROCKY MOUNT

§GREENSBORO-HIGH POINT/WINSTON-SALEM ***IFR*** 7 W
FSS: RALEIGH (LC BR 56341)
926 H64/14-32(2) (S-40, T-140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Remarks: Rnwy 5 threshold displaced 290′.
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Grensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1326
ILS[1] 109.9 I-GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY FSS: HICKORY

KINSTON (L) BVORTAC 109.6/ISO FSS: NEW BERN

LIBERTY (L) BVOR 111.2/LIB FSS: RALEIGH-DURHAM

NEW BERN (L) BVOR 108.4/EWN FSS: NEW BERN

PINEHURST (L) BVORTAC 111.8/SOP FSS: FAYETTEVILLE

§RALEIGH-DURHAM ***IFR*** 9 NW FSS: RALEIGH on Fld
435 H75/5-23(3) (S-110, T-160, TT-270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: No signal btn SS-SR indicate gnd vsby of less than 2.6 NM and/or ceil less than 1000.

NORTH CAROLINA—*Continued*

Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 122.5R 120.6
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I-RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H-SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 635′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT FSS: ROCKY MOUNT

SEYMOUR-JOHNSON AFB (L) VOR 116.5/GSB **FSS:** ROCKY MOUNT
RBn MHW 285/GSB

WEEKSVILLE RBn (HW) 254/EKV FSS: ELIZABETH CITY

WILMINGTON
§NEW HANOVER CO ***IFR*** 2 NE FSS: NEW BERN
(LC 762-7567)
31 H80/5-23(3) (S-120, T, TT)* BL4, 6, 8A, 9 S5
F5, JP5
Remarks: *(S-90, T-120, TT-212) avbl rnwy 5-23 (S-30, T-48, TT-86) avbl rnwy 9-27 Rnwy 9 threshold displaced 2875′ E. Usable length rnwys 9 and 27. 4127′. Due non-vsby some areas of fld, ctc twr. Jet aresting gear rnwy 16-34.
Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9
Clrnc Del 121.9
Wilmington App Con 118.8 122.5R 110.3T
ILS[1] 110.3 I-ILM Apch Brg 343° **LOM:** 281/IL
Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.
Remarks: [1]Glide slope unusable below 231′.

WINSTON-SALEM
§SMITH REYNOLDS ***IFR*** 2NE **FSS:** HICKORY
969 H66/15-33(3) (S-40, T-85, TT-105) BL4, 6, 8, 12 S5
F5, JP5 U2 **RVV:** Rnwy 33.
Remarks: Apch lgts oper 0700-2300 only. Rnwy lgts 15-33 only oper 2300-0700. Rnwy 3-21 (S-56, T-85, TT-105)
Winston-Salem Tower[1] 118.7 126.2 122.7R 278T
Gnd Con 121.7
Radar Services: (BCN)
Greensboro App Con 118.5 122.5R 120.9 109.9T
Greensboro Dep Con 124.6
ILS[2] 110.3 I-INT Apch Brg 328° BC unusable **LOM:** 317/IN
Remarks: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300-0700 EST daily.

NORTH DAKOTA

§BISMARCK MUNI ***IFR*** 2 SE FSS: BISMARCK on Fld
1677 H69/12-30(3) (S-78, T-114, TT-190) BL4, 6, 8 S5
F4 JP4 U2 **RVV:** Rnwy 30
Remarks: Rnwys 17-35, 2-20 and E-W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to lndg acft. Rnwy 2 threshold displaced 530′ SW end. Rnwy 12 threshold displaced 817′ NW end.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
ILS 110.3 I-BIS Apch Brg 306° **LOM:** 215/BI
(L) BVORTAC 116.5/BIS 272° 3.6 NM to fld
RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB FSS: MINOT

DEVILS LAKE (L) BVOR 111.0/DVL FSS: GRAND FORKS

NORTH DAKOTA—*Continued*

DICKINSON (H) BVORTAC 112.9/DIK **FSS:** DICKINSON
RBn BH[1] 308/DIK
Remarks: [1]VFR use only.

FARGO
§HECTOR FIELD *IFR* 2NW **FSS:** FARGO on Fld
900 H91/17–35(3) (S–90, T–120, TT) BL4,6, 8A,9 S5
F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35
Fargo Tower 118.3 122.5R **Gnd Con** 121.9
Fargo App Con 125.8 110.3T 365T
VFR ADV Ctc App Con 25 mi out on 125.8
ILS 110.3 I–FAR Apch Brg 351° **LOM:** 219/FA
Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld
Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVOR 111.2/GFK **FSS:** GRAND FORKS

JAMESTOWN (L) BVOR 114.5/JMS **FSS:** JAMESTOWN

MINOT (L) BVOR 117.1/MOT **FSS:** MINOT
Rng BMRLZ 209/MT

PEMBINA (H) BVORTAC 112.4/PMB **FSS:** GRAND FORKS

RED RIVER (H) VOR 116.7/RDR
RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN **FSS:** MINOT

OHIO

§AKRON MUNI *IFR* Adj SE AOE **FSS:** AKRON on Fld
1059 H53/7–25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2
REIL: Rnwys 7 and 25.
Remarks: Poles E. Obstn lgts inop SE hill apch rnwy 32.
Tower 120.1 122.7R 110.9T **Gnd Con** 121.9
Radar Services:
Akron-Canton App Con 125.5 126.2 122.5R 109.5T
Akron-Canton Dep Con 118.6
ILS 110.9 1–AKR Apch Brg 246° **LOM:** 362/AKR
(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld
RBn MHW 362/AKR 246° 3.7 NM to fld.
Remarks: LOM is MHW.

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§AKRON-CANTON *IFR* 10SE **FSS:** AKRON
1228 H56/1–19(4) (S–120, T–160, TT–250) BL4,6,11 S5 F5, JP1
DT2 **RVV:** Rnwy 1 **REIL:** Rnwy 23
Remarks: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.
Tower 126.2 122.5R 118.3 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.5 126.2 122.5R 109.5T
Dep Con 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400
Vsby 1 mi Min Alt 1628
ILS 109.5 1–CAK Apch Brg 006° **LOM:** 233/CA
Remarks: VOT: 115.4.

APPLETON (H) BVORTAC 116.7/APE **FSS:** COLUMBUS

ATHENS RBn MHW 206/UOA **FSS:** PARKERSBURG

ATTICA (L) BVORTAC 116.9/ATO **FSS:** MANSFIELD

BELLAIRE (L) BVOR 111.0/AIR **FSS:** WHEELING
Remarks: To be BVORTAC May 31.

BRECKSVILLE RBn MHW 326/BKI **FSS:** CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV **FSS:** AKRON

CHARDON (L) BVORTAC 109.8/CXR **FSS:** CLEVELAND

OHIO—*Continued*

COVINGTON, KY. (CINCINNATI, OHIO)
§GREATER CINCINNATI *IFR* 9SW Cincinnati **FSS:** CINCINNATI
890 H86/18–36(3) (S–179, T–283, TT–500) BL4,6,8A,9,11 S5
F5 **REIL:** Rnwy 27 **RVR** Rnwy 18–36
Remarks: Rnwy 4–22 clsd to acft over 48,000 lbs. Fee.
Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7
Clrnc Del 121.3
ATIS 112.9
Radar Services:
Cincinnati App Con 124.7 126.2 122.7R 119.7
Cincinnati Dep Con 121.0
ASR Rnwys 4, 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290.
Rnwys 22, 27 Ceil 700 Vsby 1 mi Min Alt 1590
ILS 109.9 I–CVG Apch Brg 360° **LOM:** 287/CV
111.5 I–SIC Apch Brg 180° **LOM:** 351/SI
Cincinnati (L) VORTAC 112.9/CVG 043° 2.3 NM to fld
VHF/DF contact tower or radar
Remarks: **VOT:** 108.4.

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§CINCINNATI MUNI-LUNKEN FLD *IFR* 3SE **FSS:** CINCINNATI on Fld
488 H61/2R–20L(4) (S–55, T–75 TT–167) BL4,6,8A,9 S5 F4, JP4
U2
Remarks: Rnwy 2L threshold displaced 189′ NE. 4795′ avbl lndg rnwy 2L; tkoff rnwy 20R. 4984′ avbl lndg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 701′ SE. 3331′ avbl lndg rnwy 15; tkoff rnwy 33. 4032′ avbl tkoff rwy 15, lndg rnwy 33.
Lunken Tower 126.2 122.5R 118.7 **Gnd Con** 121.9
Radar Services:
Cincinnati App Con 119.7 126.2 124.7 122.7R
Cincinnati Dep Con 121.0
ILS [1]110.9 I–LUK Apch Brg 201° **LOM** 379/DME
Cincinnati Rng SABRAZ 335/LUK 227° 4.3 NM to fld
Remarks: LOM is Madeira RBn. [1]Freq to be 110.9 June 30
Remarks: [2]Glide slope unusable beyond 11 NM below 2700′ MSL. LOM is Moderia RBn.

CLEVELAND
§BURKE LAKEFRONT Adj N **FSS:** CLEVELAND (DL)
584 H52/6–24(1) (S–31, T–37, TT–55) BL 6 S5 F4, JP1
U2 DT2
Remarks: Fee. Rgt tfc rnwy 24.
Lakefront Tower[3] 126.2 122.5R 120.9 **Gnd Con** 121.9
Radar Services
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Remarks: [1]270°–089° [2]090°–269° [3]Oper 1100–0300Z.

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§CLEVELAND-HOPKINS INTL *IFR* 9SW AOE **FSS:** CLEVELAND on Fld
792 H90/5R–23L(5) (S–54, T–78, T–126)* BL4,6,8A,9,10,11 S5
F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27
REIL: Rnwy 36L.
Remarks: *(S-125, T–188, TT–338) avbl rnwy 9–27. Rnwy 23L apch restricted by fence. Rnwy 18L threshold displaced 493′S. 4522′ avbl lndg rnwy 18L; tkof rnwy 36R. 5015′ avbl lndg 36R, tkof rnwy 18L.
Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7
‡Clrnc Del 127.4
ATIS 112.0[5]
Radar Services: (BCN)
Cleveland App Con 124.0[1] 122.7R 118.5[2] 124.5[4] 110.7T
109.9T **Cleveland Dep Con** 121.0 124.5[4]
ASR Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292.
Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.
ILS 109.9 I–CLE Apch Brg 055°
110.7 I–CEE[3] Apch Brg 278°

OHIO—*Continued*

Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld
Cleveland RBn H–SAB 344●/CLE 070° 0.8 NM to fld
VHF/DF contact tower
Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]Emergency Basis. [6]For Cuyahoga County Arpt.
VOT: 110.4

CLINTON (T) VOR 113.2/ILN FSS: DAYTON
RBn MHW 219/ILN

§COLUMBUS, PORT COLUMBUS INTL ***IFR*** 6E FSS: COLUMBUS on Fld
816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28R **REIL:** Rnwys 10R, 28R.
Remarks: *(S–180, T–200, TT–400) avbl rnwy 10L–28R. Due non-vsby some areas of fld, ctc twr.
Tower 126.2 121.1 109.1T 3023.5R **Gnd Con** 121.9
Clrnc Del 121.3
Radar Services: (BCN)
App Con 119.0 126.2 125.4 122.5R 109.5T 3023.5R
Dep Con 120.5 126.2
ASR Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.
Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.
ILS[1] 109.1 1–CBP Apch Brg 096° **LOM:** 271/CB
109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM
RBn BH 391/CMH 070° 1.0 NM to fld
VHF/DF contact tower
Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM. ASR apchs unavbl til Aug.
VOT: 111.0

CUYAHOGA RBn MHW 275/CUC FSS: CLEVELAND

DAYTON
§JAMES M COX-DAYTON MUNI ***IFR*** 9N FSS: DAYTON on Fld
1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: P-line SE. 1096′ TV twr 10NM S.
Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 125.2
Radar Services: (BCN)
Dayton App Con 118.0 122.7R 111.6T 110.3T
Dayton Dep Con 119.9
ILS[1] 110.3 1–DAY Apch Brg 056° **LOM:** 356/DA
Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.
Remarks: **VOT:** 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI FSS: FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY FSS:FINDLAY
RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO FSS: FINDLAY
Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL FSS: CLEVELAND

HAMILTON RBn MHW 260/HAO FSS: CINCINNATI

HUBBARD RBn MHW 408/HBD FSS: YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN FSS: YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA FSS: FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK FSS: COLUMBUS

LUNKEN RBn MHW 248/LKA FSS: CINCINNATI
Remarks: To be decmsnd June 30.

MADEIRA RBn MHW 379/MDE

§MANSFIELD MUNI ***IFR*** 3N FSS: MANSFIELD on Fld
1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32
Tower 119.3 122.5R 110.5T **Gnd Con** 121.9
App Con 124.7 122.5R 110.5T 108.8T

OHIO—*Continued*

ILS 110.5 1–MFD Apch Brg 320° **LOM:** 374/MF
(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.
RBn MHW 374/MF 320° 4.0 NM to fld.
Remarks: LOM is MHW.

MARION RBn MHW 203/MNN FSS: MANSFIELD

MIDDLETOWN RBn MHW 239/MWO FSS: DAYTON

MONTGOMERY CO. (T) VORW 110./MGY FSS: DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW FSS: ZANESVILLE

PATTERSON (T) VOR 111.6/FFO FSS: DAYTON
RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD FSS: DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY FSS: CLEVELAND

§SPRINGFIELD MUNI ***IFR*** 5S FSS: DAYTON (LC FA 2–4562)
1049 H90/5–23(3) (S–190, T–200, TT–380) BL4 S5 F4, JP4
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245–2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM FSS: CLEVELAND

STRONGSVILLE (L) VOR 112.0/STG FSS: CLEVELAND

TIPP CITY RBn MHW 212/TPC FSS: DAYTON

TIVERTON (L) BVOR 116.5/TVT FSS: MANSFIELD

§TOLEDO EXPRESS ***IFR*** 9SW FSS: FINDLAY (LC 242–4171)
684 H87/7–25(2) (S–107, T–163, TT–287) BL5,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 7
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084.
Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I–TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV FSS: TOLEDO

WILLOUGHBY
§LOST NATION ***IFR*** 2 N FSS: CLEVELAND (DL)
626 H50/9–27(2) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W. Rnwy 5 threshold displaced 200′ NE. 4800′ avbl lndg rnwy 5, tkof rnwy 23. 5000′ avbl lndg rnwy 23, tkof rnwy 5.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°–089° [2]090°–269° [3]Oper 0230–1430Z.

§YOUNGSTOWN MUNI ***IFR*** 10 N FSS: YOUNGSTOWN on Fld
1196 H75/14–32(3) (S–116, T–160, TT–270) BL4, 6, 8A, 9 S5 F4 TP1 U2 **RVV:** Rnwy 32
Remarks: Rnwy 9–27 rnwy lgts inop.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I–YNG Apch Brg 320° **LOM:** 338/YN
(L) BVOR–DME 109.0/YNG 183° 4.1 NM to fld.
VHF/DF contact tower

ZANESVILLE (L) BVORTAC 111.4/ZZV FSS: ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS
RBn HW 410/LTS FSS: HOBART

ARDMORE (L) BVORTAC 116.7/ADM FSS: ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO FSS: TULSA

CLINTON (L) VOR 111.2/CSM FSS: HOBART
RBn MHW 320/CSM

DUNCAN (L) BVOR 111.0/DUC FSS: ARDMORE

GAGE (H) BVORTAC 115.6/GAG FSS: GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR FSS: HOBART

KINGFISHER (L) BVORTAC 114.2/IFI FSS: OKLAHOMA CITY

§LAWTON MUNI ***IFR*** 2 S FSS: WICHITA FALLS (LC EL5–1323)
1109 H54/17–35(1) (S–50, T–75, TT–135) BL4 S5 F5 JPI U–2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.5R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230–0430Z.

McALESTER (L) BVORTAC 112.0/MLC FSS: McALESTER

MUSKOGEE RBn MHW 306/MKO FSS: TULSA (DL)

OKLAHOMA CITY
§WILEY POST ***IFR*** 7 NW FSS: OKLAHOMA CITY (DL)
1303 H54/17–35(3) (S–15, T–20, TT–30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 120.5 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200–0400Z.

§WILL ROGERS WORLD ***IFR*** 6W FSS: OKLAHOMA CITY on fld
1284 H98/17R–35L(4) (S–120, T–160, TT–) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3–21 and txwy (C–1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr.
Tower 118.'3 126.2R 122.7R 109.9T **Gnd Con** 121.9
ATIS: 109.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 120.5 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I–OKC Apch Brg 351° **LOM:** 219/OK
Oklahoma City (H) BVORTAC 115.0/OKC 098° 8.1 NM to rnwy 12.
Oklahoma City RBn H–SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM FSS: TULSA

OWASSO RBn MHW 317/DW FSS: TULSA

PAGE (L) BVOR 113.5/PGO CS/T: FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC FSS: PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO FSS: HOBART

OKLAHOMA—*Continued*

STILLWATER (T) BVOR 108.4/SWO FSS: OKLAHOMA CITY (LC FR 2–4935)

TINKER AFB RBn HW 394/TIK FSS: OKLAHOMA CITY

TULAKES RBn MHW 406/TWO FSS: OKLAHOMA CITY

§TULSA INTL ***IFR*** 5NE FSS: TULSA on Fld
674 H100/17L–35R(5) (S–200, T–200, TT–400) BL4, 6, 8A, 9, 10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R
Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy.
Tower 118.7 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.2
Radar Services: (BCN)
App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7
Tfc Info Ctc App Con 25 mi out on 119.1
ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074
ILS 109.7 I–DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I–TUL[2] Apch Brg 355° **LOM:** 338/TU
(H) BVORTAC 114.4/TUL 260° 4.3 NM to rnwy 26
RBn H–SAB 245●/TUL 220° 0.9NM to fld.
Remarks: [1]500–1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL; unusable for automatic apchs. Both systems not operd simultaneously. **VOT:** 109.0

§TULSA RIVERSIDE ***IFR*** 5S FSS: TULSA
624 H40/18–36(1) BL4 S5 F4 U2
Remarks: Due non-vsby some areas of fld, ctc twr.
Tower:[1] 118.1 122.7R
Remarks: [1]Oper 1200–0400Z.

WOODRING (T) BVOR 109.0/ODG FSS: PONCA CITY

OREGON

ASTORIA (L) BVOR 114.0/AST FSS: HOQUIAM

BAKER (L) BVORTAC 115.3/BKE FSS: BAKER

CORVALLIS (L) BVOR 108.4/CVO FSS: EUGENE

EUGENE
§MAHLON-SWEET FLD ***IFR*** 7 NW FSS: EUGENE on Fld
365 H55/16–34(2) (S–80, T–120, T–190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16
Eugene Tower 118.9 122.5R **Gnd Con** 121.9
Eugene App Con 118.9 122.5R 112.9T 109.5T
ILS 109.5 I–EUG Apch Brg 159° **LOM:** 227/EU
Eugene (L) BVORTAC 112.9/EUG on fld

JOHN DAY (H) BVOR 115.6/JDA FSS: BAKER

KLAMATH FALLS
§KINGSLEY FLD ***IFR*** 4 SE FSS: KLAMATH FALLS on Fld
4092 H103/14–32(3) (S–100, T–200, TT–380) BL4, 6,8A′, 9′ S5 F4, JP1 U2 DT2
Remarks: [1]Below FAA standards
Kingsley Tower 118.5 122.5R 269T **Gnd Con** 121.9
Radar Services: (BCN)
Klamath Falls App Con 126.2 122.5R
Klamath Falls Dep Con 124.1
Tfc Info Ctc App Con
ILS[1] 109.5 I–LMT Apch Brg 319° BC unusable **LMM:**269/MT
Klamath Falls (L) BVORTAC 115.9/LMT on fld
Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.
Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV FSS CS/T: KLAMATH FALLS

OREGON—*Continued*

§MEDFORD MUNI ***IFR*** 2 N **FSS:** MEDFORD on Fld
1330 H54/14–32(2) (S–80, T–120, TT–180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVV:** Rnwy 14
Remarks: Ngt fueling delay and surcharge 1800–0730 lcl time.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 119.8 110.3T 113.6T
ILS[1] 110.3 I–MFR Apch Brg 141° **LOM:** 394/MF
(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.
RBn SBH 263/MFR 161° 2.1NM to fld.
VHF/DF contact tower.
Remarks: [1]ILS not certified for automatic apchs. [2]VHF/DF coverage 40 NM at MEA excp 360–015°, 9000′; 015–030°, 10,000′; 030–057°, 11,000′; 120–210°, 13,500′; 315–350°, 8000′; 350–360°, 8500′; 057–075°, 30 NM at 11,000′; 075–120°, 30 NM at 13,500′; 210–225°, 30 NM at 12,000′; 225–250°, 30 NM at 10,500′.

NEWBERG (H) BVORTAC 117.4/UBG **FSS:** PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP **FSS:** EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH **FSS:** NORTH BEND
RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO **FSS:** BOISE

§PENDLETON MUNI ***IFR*** 2 NW **FSS:** PENDLETON on Fld
1493 H63/7L–25R(4) (S–70, T–100, TT–170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25
Remarks: Rnwy 25L threshold displaced 821′W. 2029′ avbl lndg rnwy 25L, 7R–25L dalgt operns only lgt planes.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 114.7T 341T
ILS 110.3 I–PDT Apch Brg 250° **LOM:** 236/PD
(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.
RBn SABH 341●/PDT 259° 1.7 NM to fld

§PORTLAND INTL ***IFR***..4 NE **FSS:** PORTLAND on Fld
26 H88/10R–28L(3) (S–100, T–200, TT–400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R
Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.0
Radar Services: (BCN)
App Con 118.1[2] 126.2 122.7R 119.8[3] 109.9T
Dep Con 124.9
Tfc Info Ctc App Con
PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226
ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726
Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826
ILS 109.9 I–PDX Apch Brg 098° BC restricted **LMM:** 201/DX
111.3 I–IAP Apch Brg 278° **LOM:** 383/IA
(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.
Rng SABH 332●/PDX 155° 2.9 NM to fld.
VHF/DF contact tower.
Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070–289°. [3]290–069°. **VOT:** 111.0.

§PORTLAND-TROUTDALE ***IFR*** Adj NW **FSS:** PORTLAND (DL)
36 H46/7–25(1) (Max 20) BL 4 S5 F4 U2 DT2
RVV: Rnwy 7
Remarks: Rnwy 7 threshold displaced 400′ E. 4241′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 500′W. 4141′ avbl lndg rnwy 25.
Troutdale Tower[3] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Portland App Con 118.1[1] 119.8[2]
Portland Dep Con 124.9
Remarks: [1]070–289° [2]290–069°. [3]Oper 1500–0700Z.

REDMOND (L) BVORTAC 117.6/RDM **FSS:** REDMOND
RBn H–SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO **FSS:** BAKER

ROSEBURG (L) BVOR 108.2/RBG **FSS:** EUGENE CS/T

§SALEM-MCNARY FLD ***IFR*** 1 SE **FSS:** PORTLAND (DL)
207 H58/13–31(2) (S–50, T–75, TT–110) BL4, 6 S5 F4 U1 DT2 **RVV:** Rnwy 31
Remarks: Rnwy 16–34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins.
ILS[1] 110.3 I–SLE Apch Brg 309° **LOM:** 266/SL
Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY **FSS:** PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS **FSS:** THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON ***IFR*** 3 NE
FSS: ALLENTOWN on Fld
388 H62/6–24(4) (S–55, T–76, TT–125) BL4,6,8A,9 S5 F4 JP1 U2 DT2 **RVR:** Rnwy 6
Remarks: 5210′ avbl lndg rnwy 24. Rnwy 14–32 open for ngt opern 2415′ btn threshold lgts plus 175′ of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9
Clrnc Del 121.9
Allentown App Con 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I–ABE Apch Brg 061° **LOM:** 400/AB
Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld
Allentown Rng SBMAZ 321/AE 195° 2.5 NM to fld.

ALTOONA (T) BVOR 108.8/AOO **FSS:** ALTOONA

AMBLER RBn MHW 275/ING **FSS:** N. PHILADELPHIA
Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD **FSS:** BRADFORD
RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP **FSS:** PITTSBURGH

CARROLLTOWN (L) BVORTAC 110.6/CLN **FSS:** ALTOONA

CLARION (L) BVOR 112.9/CIP **FSS:** DU BOIS

COATESVILLE RBn MHW 262/CVE **FSS:** N. PHILADELPHIA

CREEK RBn MHW 219/CRK **FSS:** PITTSBURGH

CRYSTAL LAKE RBn MHW 392/CYE **FSS:** WILKES–BARRE

DU BOIS RBn BH 356/DUJ **FSS:** DU BOIS

EAST TEXAS (L) BVORTAC 110.2/ETX **FSS:** DU BOIS

ELLWOOD CITY (H) BVORTAC 115.8/EWC **FSS:** PITTSBURGH

ERIE
§PORT ERIE ***IFR*** 5 SW **FSS:** ERIE on Fld
732 H50/6–24(3) (S–75, T–115, TT–) BL4, 6, 8A, 9, 11 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Erie Tower: 118.1 122.5R 110.3T 118.4 **Erie Gnd Con** 121.9
Erie App Con 119.0 122.5R 110.3T
ILS 110.3 I–ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

FRANKLIN (L) BVOR 109.6/FKL **FSS:** YOUNGSTOWN
RBn MHW 233/FKL

§HARRISBURG-YORK STATE ***IFR*** 3 S **FSS:** HARRISBURG on Fld
347 H50/8–26(3) (S–65, T–105, TT–185) BL4, 6, 8A, 9 S5 F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26.
Harrisburg Tower 119.5 126.2 122.5R 109.1T
Gnd Con 121.9

PENNSYLVANIA—*Continued*

Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447.
Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I-HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMRAZ 338/HR 118° 0.9 NM to fld.

HAZELTON (T) BVOR 109.4/HZL **FSS:** WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200–2400Z by City.

IMPERIAL (L) BVORTAC 109.4/IRL **FSS:** PITTSBURGH

INDIANA RBn MHW 242/INP **FSS:** ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/HD **FSS:** MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST **FSS:** ALTOONA

KEATING (L) BVOR 114.7/ETG **FSS:** PHILIPSBURG

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§LANCASTER ***IFR*** 5N **FSS:** HARRISBURG (LC 392–0881)
403 H50/8–26(2) (S–77, T–107, TT–) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
Rbn MHW 326/LRP
Remarks: [1]Oper 1200–0400Z.

LATROBE (T) VORW 108.2/LBE **FSS:** PITTSBURGH

MCKEESPORT RBn MHW 287/MKP **FSS:** PITTSBURGH

MILTON (L) BVORTAC 109.2/MIP **FSS:** WILLIAMSPORT

PHILADELPHIA
§NORTH PHILADELPHIA ***IFR*** 10 NE **FSS:** N. PHILADELPHIA on Fld
120 H50/6–24(2) (S–120, T–200, TT–) BL4, S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
Remarks: [1]270–089° [2]090–269°

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§PHILADELPHIA INTL ***IFR*** 5 SW **FSS:** N. PHILADELPHIA (DL)
14 H95/9–27 (3) (S–120, T–200, TT–400) BL4, 6, 8A, 9 S5
F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: Fence E, NE. Constrn vcnty rnwy 27.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
PAR [3]Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 214
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
ILS 109.3 I-PHL Apch Brg 085°. **LOM:** 237/PH
VHF/DF contact tower.
Remarks: [1]270–089° [2]090–269° [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB **FSS:** PHILIPSBURG
RBn MHW 236/PSB

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PENNSYLVANIA—*Continued*

PITTSBURGH
§ALLEGHENY COUNTY ***IFR*** 4 S **FSS:** PITTSBURGH on Fld
1252 H55/9–27(3) (S–70, T–120, TT–210) BL6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30
Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7
Radar Services: (BCN)
Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]
Pittsburgh Dep Con 125.9
ILS 109.1 I-AGC Apch Brg 275° BC unusable
(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld
RBn H–SAB 254●/AGC 082° 2.0 NM to fld
Remarks: [1]270–089° [2]090–269°

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§GREATER PITTSBURGH ***IFR*** 12 NW **FSS:** PITTSBURGH (DL)
1203 H105/10L–28R(4) (S–120, T–200, TT–400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32
Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. US Customs lndg rts arpt.
Pittsburgh Tower 119.1 126.2 122.7R 110.3T
‡Clrnc Del 121.3 **Gnd Con** 121.9
Radar Services: (BCN)
Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]
Pittsburgh Dep Con 125.9
Tfc Info Ctc Radar App Con on 124.15 when approaching from NW & NE, and on 118.7 from SE & SW.
PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1368
ASR Rnwys 5,14,23,28R,32 Ceil 500 Vsby 1 mi Min Alt 1703
Rnwy 10L, 10R, 28L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° BC unusable **LOM:** 323/GP
111.7 I-LXB Apch Brg 097° BC unusable.
VHF/DF contact tower.
Remarks: [1]270–089° [2]090–269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POTTSTOWN (L) BVORTAC 116.5/PTW **FSS:** N. PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING
§GENERAL SPAATZ FIELD ***IFR*** 2NW **FSS:** HARRISBURG (LC 376–3045)
343 H51/18–36(3) (S–30, T–45, TT–175) BL4, 6, 7, 12 S5
F4, JP4 U2 DT2
Remarks: Rgt tfc rnwys 5, 13, and 36.
Reading Tower 119.9 126.2 122.5R 109.5T
Gnd Con 121.9
Reading App Con 119.9 126.2 122.5R 109.5T
ILS 109.5 I-RDG Apch Brg 001° BC unusable **LOM:** 269/RD
VHF/DF available, contact tower.

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

TOBYHANNA RBn MHW 410/TSD **FSS:** WILKES BARRE

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** N. PHILADELPHIA

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§WILKES-BARRE-SCRANTON ***IFR*** 9 NE **FSS:** WILKES-BARRE on Fld
956 H52/4–22 (3) (S–100, T–140, TT–) BL4–6,8A,9 F5, JP4
DT2 **RVV:** Rnwy 4

PENNSYLVANIA—*Continued*

Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.
FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.
Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Wilkes-Barre App Con 124.5 122.5R 109.9T
Wilkes-Barre Dep Con 126.3
ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956
Rnwy 10,22 Ceil 900 Vsby 1½ mi Min Alt 1956
ILS[1] 109.9 I–AVP Apch Brg 043° BC unusable **LOM:** 257/AV
Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

§WILLIAMSPORT-LYCOMING CO ***IFR*** 4 E **FSS:** WILLIAMSPORT on Fld
528 H50/9–27 (3) (S–40, T–60, TT–) BL4,6,8A,9 S5 F4, JP1 DT2
Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15–33 open to acft 12,500 lbs and under. Rnwy 12–30 (Max–200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW.
Williamsport Tower 119.1 122.5R
Williampsort Gnd Con 121.9
Williampsort App Con 124.9 122.5R
ILS 110.1 I–IPT Apch Brg 266° BC unusable **LMM:** 281/PT
Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** N. PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO **FSS:** BOSTON

PROVIDENCE
§GREEN ***IFR*** 6 S **FSS:** PROVIDENCE on Fld
56 H54/5R–23L(4) (S–94.5, T–143, TT) BL5,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 5R
Remarks: Fee. No mult engine lndgs 5L, no tkofs 23R.
Providence Tower 120.7 122.5R 109.3T 368T
Gnd Con 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.3 I–PVD Apch Brg 046° BC unusable **LOM:** 368/PV
Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

ANDERSON (L) BVORTAC 108.6/AND **FSS:** ANDERSON

§CHARLESTON AFB/MUNI ***IFR*** 9 NW **FSS:** CHARLESTON on Fld
45 H90/15–33 (2) (S–50, T–155, TT–305) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15
Tower 121.0 122.5 126.2 113.5T 109.7T **Gnd Con** 121.9
Clrnc Del 121.7
Radar Services:
App Con 119.3 118.5 113.5T 109.7T
Dep Con 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.
PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445
Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245
Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445
ILS[1] 109.7 I–CHS Apch Brg 149° BC unusable **LOM:** 329/CH
(H) BVORTAC 113.5/CHS on fld.
RBn H–SAB 329●/CH
Remarks: LOM is H–SAB. **VOT:** 111.0.

SOUTH CAROLINA—*Continued*

CHESTERFIELD (L) BVOR 108.2/CTF **FSS:** FLORENCE

COLUMBIA
§COLUMBIA METROPOLITAN ***IFR*** 5SW
FSS: FLORENCE (LC 254–9791)
236 H75/10–28(2) (S–45, T–130, TT–270) BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10
Remarks: Rnwy 5–23 (S–45, T–170, TT–320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.
Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
App Con 118.2 122.5R 114.7T 110.3T 227T
ILS 110.3 I–CAE Apch Brg 107° BC unusable **LOM:** 356/CA
(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.

§OWENS FIELD 1SE **FSS:** FLORENCE (LC 254–9791)
203 H36/15–33(2) (S–30), L4 S5 F4 U1
Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.
Tower[1] 126.2 122.5R
Columbia App Con 118.2 122.5R 110.3T 227T
Remarks: [1]AAS—Oper weekdays 1230–1630Z and 1745–2115Z. Sats 1230–1600Z.

CONWAY RBn HW 269/MTL **FSS:** FLORENCE

FLORENCE (H) BVORTAC 115.2/FLO **FSS:** FLORENCE

FORT MILL (L) BVOR 112.4/FML **FSS:** HICKORY

GREENVILLE
§GREENVILLE MUNI DOWNTOWN ***IFR*** 2 E **FSS:** GREER
1047 H54/18–36 (3) (S–21, T–30, TT–60) BL4,6 S5 F4, JP1 U2
Remarks: Rgt tfc rnwys 18, 27, 23.
Tower 119.9 126.2 122.5R 109.7T 391T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.0 124.3 122.5R 119.4 109.7T
Dep Con 118.8
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.
ILS[1] 109.7 I–GRL Apch Brg 002° BC unusable **LOM:** 272/GR
Remarks: [1]Glide slope unusable below 1347′ MSL.

GREENWOOD (L) BVORTAC 114.9/GRD **FSS:** ANDERSON

GREER
§GREENVILLE-SPARTANSBURG ***IFR*** 3 S **FSS:** GREER on Fld
972 H76/3–21 (2) (S–120) BL6,8A,9, 14,15 S5 F5, JP5 U2 **RVV:** Rnwy 3
Remarks: Fee commercial only.
Greer Tower 120.1 126.2 122.7R 115.7T 109.3T 209T
Gnd Con 121.8
Radar Services: (BCN)
Greenville App Con 118.0 126.2 124.3 122.5R 119.4 109.7T
Greenville Dep Con 118.8
ILS 109.3 I–GSP Apch Brg 033° **LOM:** 287/GS
VHF/DF ctc FSS.

MYRTLE BEACH (L) BVOR 116.0/MYR **FSS:** FLORENCE

SHAW AFB (L)VOR 109.2/SSC **FSS:** FLORENCE
RBn HW 375/SW

§SPARTANSBURG DOWNTOWN MEMORIAL ***IFR*** 2SW
FSS: GREER (LC 585–5470)
816 H52/4–22(3) (S–56) BL4, 6 S5 F5, JP1, JP5
Tower[1] 118.3 126.2 122.5R 317T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Greenville App Con 124.3
Greenville Dep Con 118.8

SOUTH CAROLINA—*Continued*

(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H–SAB 248●/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100–0300Z.

VANCE (L) BVOR 110.4/VAN **FSS:** CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR **FSS:** ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR **FSS:** PIERRE

ELLSWORTH (L) BVOR 110.8/RCA **FSS:** RAPID CITY

HURON
§HOWES MUNI *IFR* 1NW **FSS:** HURON on Fld
1287 H51/12-30(2) (S–50, T–75, TT–132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17–35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 1-HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM **FSS:** DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE **FSS:** HURON
Remarks: VFR use only.

MOBRIDGE (T)VOR 108.6/MBG
Remarks: Voice 0700–1900. State owned, operd. VFR use only.

PHILIP (L) BVOR 108.4/PHP **FSS:** PIERRE

PIERRE (L) BVORTAC 112.5/PIR **FSS:** PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

§RAPID CITY MUNI *IFR* 8SE **FSS:** RAPID CITY on fld
3181 H62/14–32(2) (S–63, T–85, TT–140) BL6,11 S5 F4 U2 JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld:
RBn[2] H–SAB 254/RAP 102° 1.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Oper 1300–0500Z. [2]To be SABH June 23.

SIOUX FALLS
§JOE FOSS FIELD *IFR* 2NW **FSS:** HURON (DL)
1428 H90/3–21(3) (S–85, T–120, TT–220) BL4,6,8A,9,11 S5 F5 JP1 U2 **RVV:** Rnwys 3, 21 **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9–27 clsd acft over 30,000 lbs. First 300′ rnwy 27 unusable tkof. Usable length 5392′.
Foss Tower 118.3 122.5R **Gnd Con** 121.9
Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 1–FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

WATERTOWN (L) BVORTAC 116.6/ATY **FSS:** WATERTOWN

WINNER (L) BVOR 112.8/ISD **FSS:** PIERRE

YANKTON (L) BVOR 111.4/YKN **FSS:** HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW **FSS:** TRI-CITY on Fld

TENNESSEE—*Continued*

1519 H66/4–22(2) (S–95, T–125, TT–215) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 119.5 126.2
ILS[1] 109.9 I–TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 500 Vsby 3/4 mi Min Alt 2019
Remarks: [1]Glide slope unusable below 2019′ MSL. Lclzr unusable above 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME **FSS:** MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E **FSS:** CROSSVILLE (LC 267–5343)
682 H62/2–20(2) (S–90, T–120, TT–) BL4,6,8A,9,10 S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanooga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I–CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn MHW 341/CQN 196° 7.7 NM to fld.
Remarks. [1]016–196° [2]197–015° Glide slope unusable below 882′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV **FSS:** NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV **FSS:** CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR **FSS:** DYERSBURG

GRAHAM (L) BVOR 111.6/GHM **FSS:** NASHVILLE

HARDEE RBn MHW 281/MKL
Remarks: Privately owned.

HIGHWAY (L) BVOR 108.4/HIY **FSS:** CROSSVILLE

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY CS/T

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE
§McGHEE-TYSON *IFR* 11S **FSS:** KNOXVILLE on Fld
989 H90/4L–22R(3) (S–84, T–90, TT–200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services:
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I–TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H–SAB[1] 257/TYS 200° 2.6 NM to fld
VHF/DF contact tower.
Remarks: [1]AB 1000–0300Z. **VOT:** 112.0.

TENNESSEE—*Continued*

§MEMPHIS METROPOLITAN *IFR* 3S **FSS:** MEMPHIS on Fld
331 H89/9-27(4) (S-105, T-150, TT-240) BL4,6,8A,9,10,15
S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwys 3-21 & 14-32 (S-100). Rnwy 17-35. (S-110, T-150, TT-270). 3816′ avbl lndg & tkoff both directions rnwy 14-32. 1088′ (1340′ MSL) twr 9 NM NNE. 1078′ (1333′ MSL) twr 10 NM NE. 1077′ (1349′ MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 126.2 122.5R 118.3 115.5T 110.5T 109.5T
Gnd Con 121.9
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I-MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I-TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn SBH 371/TS 354° 4.7 NM to fld
VHF/DF available, contact FSS
Remarks: [1]077-271° [2]272-076° [3]Glide slope unusable below 400′ MSL. [4]LOM is Brooks MHW. [5]LOM is SBH. [6]Glide slope unusable below 350′ MSL. **VOT:** 111.0

§NASHVILLE METROPOLITAN *IFR* 5SE **FSS:** NASHVILLE on Fld
597 H80/13-31(3) (S-76, T-130, TT-220) BL4,6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 2L
Remarks: Rnwy 2R-20L-240′ overrun N end; 1185′ S end; rnwy 2L-20R-1065′ overrun S end; rnwy 13-31-1000′ overrun SE and NW end. 1368.5′ (2049′ MSL) twr 8.5 NM W. 1179′ (2049′ MSL) 9 NM NNW.
Berry Tower 126.2 122.5R 119.1 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I-BNA Apch Brg 016° **LOM:**304/BN
Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.
Nashville RBn H-SAB[2] 304●/BN 016° 5.0 NM to rnwy 13.
VHF/DF available, contact tower
Remarks: [1]Main 1200′ til 2 mi from end of rnwy on final to rnwy 20R. LOM is H-SAB. [2]AB 0500-2200. **VOT:** 112.0.

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 298/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT

TEXAS

§ABILENE MUNI *IFR* 3SE **FSS:** ABILENE on Fld
1778 H60/17-35(2) (S-70, T-89, TT-145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35
Remarks: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmitt 122.5 and receive 124.1 mc 20 mi out.
Tower[1] 120.1 122.7R 110.3T 126.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0

TEXAS—*Continued*

Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB
(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.
Remarks: [1]Opers 0600-2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

§AMARILLO AFB/MUNI *IFR* 8E **FSS:** AMARILLO on Fld
3605 H135/3-21(2) (S-65, T-330, TT-470) BL6,8A,9,10
S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21
Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100′ MSL. Overhead tfc ptn 5400′ MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.
Tower 126.2 122.5R 118.3 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T
Dep Con 119.5
Tfc Info Ctc App Con 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005.
Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105
ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM
(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.
RBn SABH 251●/AMA 109° 1.3 NM to fld.
Remarks: [1]Glide slope unusable below 3905′ MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN
§MUELLER MUNI *IFR* 2NE **FSS:** AUSTIN on Fld
632 H73/12R-30L(5) (S-74, T-100, TT-159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVV:** Rnwy 30L
Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844′ SE. 6400′ avbl lndg rnwy 12R. Rnwy 16R threshold displaced 589′ S. 4406′ avbl lndg rnwy 16R. 1137′ (2049′ MSL) twr 5 NM W. 1199′ (2049′ MSL) twr 7 NM W.
Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Austin App Con 124.9 118.8 122.7R 112.5T
Austin Dep Con 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
Tfc Info Contact App Con 25 mi out on 118.8.
ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU
Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.
Austin RBn MHW 353/AU 305° 4.8 NM to fld.
Remarks: LOM is MHW.

BEAUMONT-PORT ARTHUR
§JEFFERSON CO *IFR* 9SE **FSS:** BEAUMONT on Fld
16 H57/11-29(3) (S-65, T-91, TT-170) BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16
Remarks: (S-83, T-118, TT-212) avbl rnwy 16-34.
Tower 119.5 122.5R **Gnd Con** 121.9
Beaumont App Con 121.3 122.5R 114.9T
ILS 109.5 I-BPT Apch Brg 114° **LOM:** [2]257/BP
Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.
RBn[1] **MHW** 368/BEM
Remarks: [1]VFR use only. [2]LOM unusable beyond 8 NM.

BEEVILLE **FSS:** ALICE
§CHASE (NAAS) FLD 45E
186 H80/13R-31L(3) BL4,6,7
Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.
Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO **FSS:** FORT WORTH

BERGSTROM (L) VORW 109.8/BSM **FSS:** AUSTIN
RBn HW 293/BSM

BIGGS RBn HW 400/BIF **FSS:** EL PASO

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326 /BGS

BORGER (L) BVOR 108.6/BGD **FSS:** AMARILLO

BRAZOS SANTIAGO RBn HW 314/PIL **CS/T:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE

§RIO GRANDE VALLEY INTL *IFR* 4E AOE **FSS:** BROWSNVILLE on Fld
22 H74/13R-31L(5) (S-26, T-50, TT-87) BL4,6,7 S5 F5, JP1 JP4 U2
Remarks: Brush apch 31L. Trees apch rnwys 31R, 35R. Rnwy 17R-35L: (S-35, T-56, TT-108). Rnwys 8-26 and 4-22 do not meet air carrier standards for day/ngt operns. No lgts rnwys 13R-31L and 8-26.
Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I-BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 114.7/ARO **FSS:** BUFFALO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR **FSS:** ALICE

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION

§EASTERWOOD FIELD *IFR* 2SW **FSS:** COLLEGE STATION on Fld
319 H51/10-28(3) (S-30, T-40, TT-) BL4 S3 F4 JP1
Remarks: Services offered dalgt hrs only. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: [1]Oper 1200-0400Z.

CONNALLY RBn MHW 400/CNW **FSS:** WACO

§CORPUS CHRISTI INTL *IFR* 5W **FSS:** ALICE (LC TU 4-5712)
43 H56/13-31(2) (S-96, T-108, TT-152) BL4,6,8A,9 S5 F4, TP-1 JP4 U2 **RVV:** Rnwy 13
Remarks: Amber flashing lgt for rgt ptn. US Customs-lndg rts arpt 0800-1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I-CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS

§ADDISON *IFR* 9N **FSS:** DALLAS (LC FL2-8491)
637 H52/15-33(2) BL4 S5 F5. JP1 U2
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°-307° [2]308°-126°.

§DALLAS LOVE FIELD *IFR* 5NW **FSS:** DALLAS on Fld
485 H88/13R-31L(3) (S-100, T-150, TT-350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R **RVR:** Rnwy 13L
Remarks: Rnwy 13R-31L limited to tkofs only. US Customs lndg rgts arpt 0030-1430 Mon-Fri, 0030-1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 126.2 122.5R 118.7 **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[3] 125.2 125.8[2] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I-DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF contact tower.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°-307° [3]308°-126° [4]Glide slope unusable below 677′ MSL due roughness. BC unusable for automatic apchs. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

§RED BIRD *IFR* 6SW **FSS:** DALLAS (LC FL2-8491)
660 H44/13-31(2) BL4 S5 F4, JP1 U2
Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°-307° [2]308°-126° [3]Oper 1200-0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

DYESS (L) VOR 109.2/DYS **FSS:** ABILENE
RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

§EL PASO INTL *IFR* 4NE (AOE) **FSS:** EL PASO on Fld
3956 H120/4-22(3) (S-95, T-156, TT-280) BL4,6,8A,9,11 S5 F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26
Remarks: Rnwy 4 threshold displaced 1000′ NE. 11,000′ avbl lndg rnwy 4. Rnwy 17 threshold displaced 395′ S. 6606′ avbl lndg rnwy 17.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
Dep Con 119.1
ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I-ELP Apch Brg 218° **LOM:** 266/EL
(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.
RBn H-SAB 242 /ELP 258° 3.2 NM to fld.
Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

TEXAS—*Continued*

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH
§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE **FSS:** FORT WORTH (DL)
568 H90/17–35(2) (S–83, T–120, TT–210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13
Remarks:1074′ (1679′ MSL) twr 10.5 NM WSW.
Southwest Tower 118.9 126.2 122.7R **Gnd Con** 121.8
Radar Services:
Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T
Fort Worth Dep Con 123.9 122.7R
Tfc Info Ctc App Con 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I–GSW Apch Brg 129° **LOM:** 219/GS
Greater Southwest (L) BVORTAC[1] 110.6/GSW at fld.
VHF/DF contact tower.
Remarks: **VOT:** 111.8. [1]Wea bcsts discontd 2400–0600 excp forecast.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld
692 H52/17–35(3) (S–60, T–80, TT–) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17
Remarks: P-line SE.
Tower[1] 126.2 122.7R 118.3 **Gnd Con** 121.9
Radar Services:
Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T
Fort Worth Dep Con 123.9 122.7R
ILS 109.9 I–FTW Apch Brg 174° **LOM:** 365/FT
Fort Worth RBn H–SAB 365●/FT 174° 3.5 NM to rnwy 17
Remarks: [1]Oper 1200–0400Z. LOM is H–SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON
RBn H H–SAB 206●/GLS

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK **FSS:** COLLEGE STATION

GREENVILLE
§MAJORS FIELD *IFR* 4SE **FSS:** DALLAS
544 H80/17–35(3) (S–26, T–50, TT–) BL4 S5 F4
Remarks: Rgt tfc rnwy 17.
Tower[1] 121.3 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 1330–2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE

HOOD (L) VORW 111.8/HLR **FSS:** COLLEGE STATION
RBn MHW 347/HLR

HOUSTON
§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld
48 H76/3–21(2) (S–75, T–107, TT–185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12
Remarks: US Customs lndg rgts arpt 0800–1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12–30, 3–21 not usable for lndgs or taxg acft; usable rnway pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del: 127.6
ATIS 109.9
Radar Services:
App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T

TEXAS—*Continued*

Dep Con 120.2 126.2
Tfc Info Ctc App Con 25 mi out on 119.1 or 118.1
ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448
Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548
ILS 109.9 1–HOU Apch Brg 036° **LOM:** 251/HO
Houston (H) BVORTAC 115.9/HOU on fld.
VHF/DF available, contact tower.
Remarks: [1]218°–008° [2]009°–217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/IDU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN
1515 H63/17–35(1) L4,11 F4 U1 **REIL:** Rnwy 35
Tower[1] 126.2
Radar Services:
Austin App Con 124.9 118.8 122.7R
Austin Dep Con 120.8
RBn MH 393/JCY 346° 2 NM to fld.
Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (L) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

KELLY (L) VORW 113.8/SKF **FSS:** SAN ANTONIO
RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI **FSS:** ALICE

§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2–3612)
524 H49/15–33(1) (S–25, T–37, TT–) BL4 S3 F4 U1
Remarks: Mil jet tfc advisory service avbl from **AFB** twr on 122.5R, 118.5T.
VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.
(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.
RBn HW[1] 308/LRD
Remarks: [1]Oper 1200–2400Z Mon-Fri.

LAUGHLIN (L) VOR 114.4/DLF **FSF:** JUNCTION
RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FSS:** SAN ANTONIO

LEONA (L) BVORTAC 110.8/LOA **FSS:** COLLEGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

LONGVIEW
§GREGG COUNTY MUNI *IFR* 6SE **FSS:** GREGG COUNTY on Fld
365 H61/17–35(3) (S–75, T–100, TT–) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13
Tower 119.7 122.5R **Gnd Con** 121.9
ILS 109.5 I–GGG Apch Brg 127° **LOM:** 410/GG
Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

§LUBBOCK MUNI *IFR* 4NE **FSS:** LUBBOCK on Fld
3269 H85/17R–35L(5) (S–90, T–150, TT–250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R
Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl lndg rnwy 35L, 8500′ avbl lndg rnwy 17R. Clsd to tactical mil jet acft.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)[1]
App Con 118.1 126.2 122.5R 110.8T

TEXAS—*Continued*

Dep Con 118.1
ASR Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Alt 3669
ILS 109.5 I-LBB Apch Brg 169° **LOM:** 219/LB
(L) BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT **FSS:** DALLAS

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI **FSS:** PALACIOS

McALLEN
§MILLER INTL *IFR* 2S (AOE) **FSS:** McALLEN on Fld
106 H49/13–31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13
Remarks: P-line N, S. TV ant NE. Rnwy 31 threshold displaced 542′ NE.
McAllen Tower 118.9 122.5R **Gnd Con** 121.9
Brownsville App Con: 119.5 126.2 118.1
McAllen (L) BVOR 109.8/MFE on fld
Remarks: Oper 1200–0400Z.

§MIDLAND AIR TERMINAL *IFR* 8SW **FSS:** MIDLAND on Fld
2870 H83/10–28(4) (S–100, T–128, TT–280) BL4,6,8A,9 S5 F5,JP2 U2 **RVV:** Rnwy 10
Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl lndg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
App Con 121.1 122.5R 114.8T 110.3T
ILS 110.3 I–MAF Apch Brg 103° **LOM:** 344/MA
VHF/DF contact FSS.
(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.

MINERAL WELLS (H) BVORTAC 117.7/MWL **FSS:** MINERAL WELLS
RBn BMH 284/MWL

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CORPUS (L) VOR W 109.6/NGP **FSS:** PALACIOS
RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PLAINVIEW
§HALE COUNTY *IFR* 1S **FSS:** AMARILLO (LC CA 3–2148)
3372 H52/4–22(2) (S–30, T–40, TT) BL4 S5 F4 U2
Remarks: Hangar NE.
Plainview Tower[1] 118.9 122.5R **Gnd Con** 121.7
Lubbock App Con 118.1 126.2 112.9T
Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.
Remarks: [1]Oper 1200–0400Z.

QUITMAN (L) BVOR 114.0/UIM **FSS:** TYLER

RANDOLPH RBn HW 359/RND **FSS:** SAN ANTONIO

ROCKSPRINGS (L) BVOR 111.2/RSG **FSS:** SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI **FSS:** BEAUMONT CS/T

SALT FLAT (L) BVORTAC 113.0/SFL **FSS:** EL PASO

SAN ANGELO
§MATHIS FIELD *IFR* 7SW **FSS:** SAN ANGELO on Fld
1915 H59/3–21(3) (S–35, T–56, TT–) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3
Remarks: Trees E. Rnwy 9–27 clsd to acft over 25,000 lbs GWT.
Tower 118.3 122.5R **Gnd Con** 121.9
San Angelo App Con 119.2 118.3 122.5R 115.1T 109.7T
ILS 109.7 I–SJT Apch Brg 033° **LOM:** 356/SJ
San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

§SAN ANTONIO INTL *IFR* 7N **FSS:** SAN ANTONIO on Fld
808 H85/12–30(3) (S–150, T–225, TT–300) BL4,6,8A,9 S5 F4, JP1 U2 **RVV:** Rnwy 3 **RVR:** Rnwy 12
Remarks: US customs lndg rts arpt 1000–2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′.
Tower 118.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 1208
ILS 110.9 I–ANT Apch Brg 123° BC unusable **LOM:** 305/AN
109.7 I–SAT Apch Brg 032° **LOM:** 219/SA
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
H–SAB 254/SAT 175° 2.3 NM to Rnwy 17
VHF/DF contact tower.
Remarks: **VOT:** 110.4.

SAN ANTONIO
§STINSON MUNI *IFR* 5S **FSS:** SAN ANTONIO (LC TA 6–9575)
577 H48/9–27(3) (S–40, T–75, TT–) BL5 S5 F4
Remarks: Trees all apchs. Tfc 800′ above terrain 1367′ MSL. Rnwy 14 threshold displaced 600′ SE; rnwy 32–400′ NW.
Tower[1] 119.5 122.7R **Gnd Con** 121.7
Radar Services:
San Antonio App Con 120.3 134.1 126.5 126.2R 122.5R
San Antonio Dep Con 123.9
Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld
Remarks: [1]Oper 1300–0500Z.

SEGUIN RBn HW 371/UCT **FSS:** SAN ANTONIO
Remarks: VFR only. Opers daylight hours Mon-Fri.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR **FSS:** DALLAS

TANK RBn BH 388/DDA **FSS:** DALLAS

TEMPLE (L) BVOR 110.4/TPL **FSS:** WACO

TEXICO (H) BVORTAC 112.2/TXO **FSS:** TUCUMCARI

TRADEWIND RBn MHW 338/AM **FSS:** AMARILLO

TYLER
§POUNDS FIELD *IFR* 4W **FSS:** TYLER on Fld
544 H52/13–31(3) (S–40, T–60, TT–100) BL5,6,8A,9 S5 F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl lndg rnwy 17.
Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I–TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT **FSS:** PALACIOS
(512) 445–1281

§WACO MUNI *IFR* 5NW **FSS:** WACO on Fld
515 H57/18–36(3) (S–26, T–38, TT–) BL4,6,8A,9 S5 F5 U2 **RVV:** Rnwy 18
Remarks: Rnwy 14–32 (S–46, T–64, TT–100) Rnwy 5 threshold displaced 453′E. Usable length rnwy 23–5500′; rnwy 5–5049′.

TEXAS—*Continued*

Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 134.1 122.7R 115.3T
Dep Con 125.4
ILS 109.7 I–ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS
§SHEPPARD AFB/WICHITA FALLS AIR TRML ***IFR*** 5N FSS: WICHITA FALLS on Fld
1015 H131/15–33(2) (S–65, T–300, TT–530) BL4,6,8A,9,10 S5 F4, JP1 JP5 U2 **VASI:** Rnwys 15, 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700′ rectangular tfc ptn 2200′ MSL. Rgt tfc rnwys 17 & 33. Rnwy 17–35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Wichita Falls App Con 118.2 122.5R 109.7T
Wichita Falls Dep Con 118.2
ILS 109.7 I–SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.8 NM to rnwy 33.
VHF/DF ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK FSS: WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL FSS: SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE FSS: BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC FSS: CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA FSS: SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG FSS: SALT LAKE CITY

HANKSVILLE (H) BVORTAC 115.9/HVE FSS: CEDAR CITY

HILL RBn MHW 317/HI FSS: SALT LAKE CITY

LA SAL (L) BVORTAC 112.9/LXL FSS: GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU FSS: SALT LAKE CITY

MILFORD (H) BVORTAC 112.1/MLF FSS: CEDAR CITY

MYTON (H) BVORTAC 117.9/MTU FSS: GRAND JUNCTION

§OGDEN MUNI ***IFR*** 3SW FSS: SALT LAKE CITY (LC 394–8712)
4455 H73/3–21(3) (S–100, T–160, TT–280) BL4,11 S5 F5 JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000′ NE end. 6300′ avbl lndg day/ngt rnwy 21 and lndg rnwys. Tkof rnwy 21 ngts. 7300′ avbl lndg rnwy 3 and tkof rnwys 21 days.
Tower[1] 118.7 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1
Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
Remarks: [1]Oper 1300–0500Z.

PROVO (H) BVORTAC 116.6/PVU FSS: SALT LAKE CITY (LC 374–6327)

§SALT LAKE CITY MUNI NO. 1 ***IFR*** 4W FSS: SALT LAKE CITY on Fld
4226 H100/16R–34L(2) (S–100, T–160, TT–260)
BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: Rnwy 7–25 & 14–32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500–2330Z Mon-Fri. No service holidays.

UTAH—*Continued*

Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Salt Lake App Con 120.9 122.7R 116.8T 109.5T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I–SLC Apch Brg 339° **LOM:** 239/SL
(H) BVORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF[1] contact tower.
Remarks: [1]VHF/DF unusable from 360 to 100°. **VOT:** 111.0

VERNAL (L) BVOR 108.2/VEL FSS: GRAND JUNCTION

VERMONT

§BURLINGTON MUNI ***IFR*** 2E AOE **FSS:** MONTPELIER (LC 878–3393)
335 H78/15–33(2) (S–62, T–110, TT–195) BL5,6,8A,9 S5 F5, JP1, JP4 U2 DT2 **RVV:** Rnwys 15 and 33
Tower 118.3 126.2 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 122.5R 110.3T
Dep Con 119.2
ILS 110.3 I–BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H–SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF contact tower.
Remarks: **VOT:** 109.0.

MONTPELIER (L) BVOR 108.2/MPV **FSS:** MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK **FSS:** MONTPELLER

RUTLAND RBn MHWZ 391/RUT **FSS:** GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD **FSS:** LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA **FSS:** BLUEFIELD

BLACKSTONE RBn MHW 326/BKT **FSS:** BLACKSTONE (0600–2200)
FSS: RICHMOND (2200–0600)

BROOKE (L) BVORTAC 111.8/BRV **FSS:** WASHINGTON

CAPE CHARLES (L) BVORTAC 112.2/CCV **FSS:** NEWPORT NEWS

CASANOVA (L) BVORTAC 109.6/CSN **FSS:** WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE ***IFR*** 7N **FSS:** CHARLOTTESVILLE on fld
634 H46(1) BL4,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
ILS 109.1 I–CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.9 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD **FSS:** ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN **FSS:** DANVILLE

ECLIPSE RBn HW 209/NGU **FSS:** NEWPORT NEWS

EVINGTON RBn MHW 385/EVI **FSS:** ROANOKE

FELKER (T) VOR 111.4/FAF **FSS:** NEWPORT NEWS
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU **FSS:** NEWPORT NEWS
RBn MHW 356/NTU

VIRGINIA—*Continued*

FLAT ROCK (H) BVORTAC 113.3/FAK **FSS:** RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN **FSS:** NEWPORT NEWS
RBn H 362/FKN. Private facility

FRONT ROYAL (H) BVORTAC 115.3/FRR **FSS:** MARTINSBURG

GORDONSVILLE (H) BVORTAC **FSS:** CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM **FSS:** NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN **FSS:** WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW **FSS:** RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP **FSS:** ROANOKE
Remarks: Private Facility

LANGLEY (L) VOR 111.6/LFI **FSS:** NEWPORT NEWS

LAWRENCEVILLE (L) BVOR 112.9/LVL **FSS:** BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE **FSS:** ROANOKE

LINDEN (L) BVORTAC 114.3/LDN **FSS:** WASHINGTON

§LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sept 6.
Lynchburg Tower 120.7 122.5 **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS[1] 110.1 I–LYH Apch Brg 032°
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: [1]BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR **FSS:** CHARLOTTESVILLE
112.6/MOL

MORRISON RBn MHW 248/MOV

NEWPORT NEWS
§PATRICK HENRY *IFR* 9NW **FSS:** NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5 F5, JP1 U2 DT **FSS:** NEWPORT NEWS on Fld
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30–Sept 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 126.8
ILS 110.1 I–PHF Apch Brg 065° BC unusable **LOM:** 375/PH

§NORFOLK MUNI *IFR* 5NE **FSS:** NEWPORT NEWS (DL)
26 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVV:** Rnwy 4
Remarks: DT May 30–Sept 5. Rnwy 13 threshold displaced 219′ SE. 4657′ avbl lndg rnwy 13. 4876′ avbl lndg and tkof rnwy 31 and tkof rnwy 13. Rnwy open day/ngt operns. Rnwy 19 threshold displaced 950′ SW. Dalgt operns 4050′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both direstions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibted from making eng runup when facing SE at the apch end of rnwy 4.
Tower 121.1 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.9 **Dep Con** 118.5
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526
ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF contact tower.

VIRGINIA—*Continued*

PULASKI (H) BVORTAC 115.9/PSK **FSS:** BLUEFIELD
Rng SBMRAZ 272/PK

RICHMOND
§RICHARD E. BYRD FLYING FIELD *IFR* 6 E **FSS:** RICHMOND on Fld
167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5 F5, JP1, JP4 U2 DT **RVV:** Rnwy 6
Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ overrun each end rnwy 15–33. DT may 30–Sept 5.
Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Richmond App Con 119.0 126.2 122.5R 119.9 110.3T
Richmond Dep Con 118.2
Tfc Info Lndg acft App Con 35 mi out on 119.9
ASR Rnwys 2, 15,[1] 20, 24,[1] 33[1] Ceil 400 Vsby 1 mi Min Alt 567
Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667
ILS 110.3 I–RIC Apch Brg 063° **LOM:** 382/RI
Richmond (H) BVORTAC 114.1/RIC on fld.
Richmond SBH 260/RIC 018° 1.7 NM to fld.
Remarks: [1]400–¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT:** 110.8.

§ROANOKE MUNI *IFR* 3 NW
FSS: ROANOKE on Fld
1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5 F5, JP1 U2 DT **REIL:** Rnwy 23
Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sept 6.
Tower 118.3 122.5R 120.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 126.9 122.5R 120.2 109.0T
Dep Con 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374
Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV **FSS:** DANVILLE

SPRINGFIELD RBn MHW 353/SRI **FSS:** WASHINGTON

WOODRUM (T) VOR 109.0/ODR **FSS:** ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI **FSS:** BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K **FSS:** SEATTLE

ELLENSBURG (L) BVORTAC 117.9/ELN **FSS:** WENATCHEE

EPHRATA (H) BVOR 116.8/EPH **FSS:** EPHRATA

EVERETT
§PAINE FIELD *IFR* 6 SW **FSS:** SEATTLE (DL)
603 H90/16–34(2) (S–50, T–150, TT–220) BL6, 8A, 9 S5 F4, JP4 U2 DT2
Remarks: Rnwy 11 threshold displaced 1600′. Jet arresting barrier 3″ above rnwy 16/34 J-bar each end rnwy 34 not visible to twr 2000′ to 4000′ from apch end. Due constrn twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.
Tower 121.3 126.2 122.5R
Radar Services:
Seattle Center App Con 121.2
ILS 109.3 I–PAE Apch Brg 155° **LOM:** 396/PAE

WASHINGTON—*Continued*

Everett (L) VOR 114.2/PAE on fld.

Everett RBn HW 396/PAE 158° 7.9 NM to fld

Remarks: LOM is HW.

GRAY RBn MH 216/GRF **FSS:** SEATTLE

HOQUIAM (H) BVOR 113.1/HQM **FSS:** HOQUIAM

Remarks: To be BVORTAC and freq 115.4 June 23.

KITSAP RBn MHW 206/PWT **FSS:** SEATTLE

Remarks: Operd by County.

LARSON (L) VOR 117.0/LRN **FSS:** EPHRATA

RBn MHW 408/LR

NEAH BAY RBn HW 391/EBY **FSS:** SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM **FSS:** SEATTLE

PASCO (L) BVOR 108.4/PSC **FSS:** WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM **FSS:** SEATTLE

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§RENTON MUNI *IFR* Adjt NW 031° **FSS:** SEATTLE (LC RO 2-4000)

29 H53/15-33(1) (S-100, T-190, TT-300) BL4 S5

F4, U2 JP4 DT2

Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195-300° at 1000′ MSL beyond 2 mi.

Tower[1] 118.9 122.7R 121.5 **Gnd Con** 121.9

Seattle Dep Con 119.2

Remarks: [1]Oper 0700-2300 lcl time.

SEATTLE

§KING COUNTY ARPT, BOEING FIELD *IFR* 4 S **FSS:** SEATTLE on fld

17 H100/13-31(2) (S-100, T-160, TT-290) BL6, 11, 12 S5

F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31

Remarks: Rnwy 12-30 (Max-12.5)

Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9

Radar Services: (BCN)

Seattle App Con 119.5 123.9 125.9 122.6R 114.5T

Seattle Dep Con 119.2

ILS[1] 110.9 I-BFI Apch Brg 128° BC unusable **LOM:** 387/BF

Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.

Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

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§SEATTLE-TACOMA INTL *IFR* 10 S **FSS:** SEATTLE (DL)

428 H119/16-34(2) S-45, T-145, TT-300) BL4,6,8A,9,14

S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34

Tower 119.9 123.9 122.6R **Gnd Con** 121.7

Radar Services: (BCN)

Seattle App Con 119.5 123.9 125.9 122.6R 114.5T

Seattle Dep Con 119.2 123.9

PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628

ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828

ILS 110.3 I-SEA[1] Apch Brg 338° BC unusable **LOM:** 224/SE

111.5 I-SZI[2] Apch Brg 158° **LOM:** 281/SZ

Seattle (H) BVORTAC 114.5/SEA at fld.

VHF/DF contact tower.

Remarks: [1]Automatic apchs not authorized from MM to touchdown. [2]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

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§SPOKANE INTL *IFR* 5 S **FSS:** SPOKANE

2372 H90/3-21(2) (S-100, T-200, TT-350) BL5, 6, 8A, 9

S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21

Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3-21.

Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9

Radar Services: (BCN)

App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T

Dep Con 124.3

Tfc Info Ctc Spokane App Con aprx 20 mi out.

WASHINGTON—*Continued*

ILS 109.9 I-GEG Apch Brg 205° **LOM:** 236/GE

(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld

RBn SABH 365●/GEG 271° 4.3 NM to fld

Remarks: **VOT:** 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW **FSS:** SEATTLE

WALLA WALLA

§CITY-COUNTY *IFR* 3 NE **FSS:** WALLA WALLA on fld

1205 H72/2-20(3) BL4, 6, 8A, 9 S5 F5, JP4 DT2

Remarks: 1030′ overrun NE end, 500′ SW end.

Walla Walla Tower[1] 118.5 122.7R

(L) BVOR 111.8/ALW

RBn BH 356/ALW

Remarks: [1]Oper 1400-0200Z Mon-Fri; Clsd wkends, holidays. AAS propided by FSS when twr not in opern.

WENATCHEE (L) BVOR 111.0/EAT **FSS:** WENATCHEE

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§YAKIMA MUNI *IFR* 2 S **FSS:** YAKIMA on Fld

1082 H55/9-27(3) (S-50, T-60, TT-100) BL4, 6 8A, 9 S5

F5, JP1, JP4 U2

Remarks: Rnwy 34 threshold and runup area not visible from twr.

Tower 119.1 122.5R **Gnd Con** 121.9

App Con 120.2 122.5R

ILS 110.1 I-YKM Apch Brg 269° **LOM:** 284/YK

(H) BVOR 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW **FSS:** CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF **FSS:** BLUEFIELD

CHARLESTON

§KANAWHA *IFR* 2 NE **FSS:** CHARLESTON on Fld

982 H56/5-23(2) (S-150, T-200, TT-44) BL4, 6, 8A, 9, 11

S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5

Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9

Radar Services:

Charleston App Con 118.8 110.3T 122.5R

Charleston Dep Con 124.1

Tfc Info All landing acft ctc App Con on 118.8

ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582

ILS 110.3 I-CRW Apch Brg 230° BC unusable **LOM:** 303/CR

Charleston (H) BVORTAC 117.4/SRW 084° 8.1 NM to fld

VHF/DF contact tower.

Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. **VOT:** 111.0.

CLARKSBURG (L) BVOR 115.1/CKB **FSS:** MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN **FSS:** ELKINS

Rng SBMRAZ 245/EN

HENDERSON (L) BVORTAC 111.2/HNN **FSS:** HUNTINGTON

HUNTINGTON

§TRI-STATE (WALKER LONG FLD) *IFR* 6 SW

FSS: HUNTINGTON on Fld

828 H53/11-29(1) (S-50, T-75, TT-135) BL6, 8A, 9 S5

F4, JP1 U2 DT1

Huntington Tower 120.9 122.5R **Gnd Con** 121.9

Huntington App Con 118.5 122.5R 109.9T

ILS[1] 109.9 I-HTS Apch Brg 114° **LOM:** 287/HT

Huntington RBn BH 323/HTW 199° 2.5 NM to fld.

Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL **FSS:** ELKINS

WEST VIRGINIA—*Continued*

§MARTINSBURG MUNI ***IFR*** 4 S **FSS:** MARTINSBURG on Fld
556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2
Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Dulles App Con 119.2 126.1
Dulles Dep Con 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby 3/4 mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.
Remarks: [1]Oper 0800–1630 Tues, Thur, Sat and Sun; 0830–2200 Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW **FSS:** MORGANTOWN
RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB **FSS:** PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL **FSS:** CHARLESTON

§WHEELING-OHIO COUNTY ***IFR*** 7 N **FSS:** WHEELING on Fld
1195 H40/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12 F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21
Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9
ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL
Wheeling (L) BVOR 112.2/HLG 220° 5.8 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU **FSS:** ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW **FSS:** GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ **FSS:** WAUSAU

CAMP MC COY RBn MHW 412/CAY **FSS:** LA CROSSE

DELLS (L) BVORTAC 110.4/DLL **FSS:** LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU **FSS:** EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD **FSS:** GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG **FSS:** MINNEAPOLIS

GREEN BAY
§AUSTIN STRAUBEL ***IFR*** 7 SW **FSS:** GREEN BAY on Fld
694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT1 **RVR:** Rnwy 6
Remarks: US Customs lndg rts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE
Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9
Green Bay App Con 119.4
VFR ADV Ctc App Con on 119.4.
ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR
Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.
VHF/DF ctc FSS.

JANESVILLE
ROCK COUNTY ***IFR*** 4 SW **FSS:** ROCKFORD (LC EN5639)
808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2
REIL: Rnwy 4
Remarks: Rnwy 22 threshold displaced 6981 NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.
Tower 121.2 122.7R **Gnd Con** 121.9
Rockford App Con 119.6
(L) BVORTAC 113.4/JVL
Remarks: Opers 0600–2200 lcl time.

WISCONSIN—*Continued*

LACROSSE (T) BVOR 108.4/LSE **FSS:** LACROSSE
RBn SBH 371/LSE

LAND 'O LAKES RBn MHW 396/LNL **FSS:** WAUSAU
Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR **FSS:** LONE ROCK

MADISON
§TRUAX FIELD ***IFR*** 5 NE **FSS:** MADISON on Fld
859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36
Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.
Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9
Madison App Con 120.1 126.2 109.9T
Madison Dep Con 118.8
VFR ADV Ctc App Con on 120.1.
ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN
Madison RBn MHW 400/MSN 359° 3.9 NM to fld.
Truax (L) BVOR 115.5/TAX at fld.
VHF/DF contact FSS.
Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW **FSS:** GREEN BAY

MARSHFIELD RBn MHW 391/MFI
Remarks Operd by City

MILWAUKEE
§GENERAL MITCHELL FLD ***IFR*** 5 S **FSS:** MILWAUKEE on Fld
722 H99/1–19(4) (S–100. T–185, TT–350) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwy 1
Remarks: Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N.
Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 120.0
Radar Services: (BCN)
Milwaukee App Con 126.5 123.8 126.2 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19, 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1323
ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Milwaukee RBn H–SAB 242●/MKE 352° 1.4 NM to fld.
VHF/DF contact tower.
Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. **VOT:** 109.0

§TIMMERMAN FIELD ***IFR*** 5 NW **FSS:** MILWAUKEE (DL)
745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County arpt Director except emgcy.
Tower[1] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[2] 126.2 123.8[2] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6

WISCONSIN—*Continued*

Tfc Info Ctc Milwaukee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200–0400Z. [2]360–179 [3]180–359.

OSHKOSH
§WINNEBAGO CO *IFR* 1 SW FSS: GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC FSS: MILWAUKEE

REWEY (L) BVOR 115.8/RWY FSS: LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI FSS: WAUSAU

STEVENS POINT (L) BVORTAC 110.6/STE FSS: WAUSAU

TIMMERMAN (L) BVOR 108.6/MWC FSS: MILWAUKEE

TRUAX (L) BVOR 115.5/TAX FSS: MADISON

VOLK (L) VOR 109.0/VOK FSS: LA CROSSE
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW FSS: WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI FSS: ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY FSS: WORLAND

§CASPER AIR TERMINAL *IFR* 7 NW FSS: CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2
Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVOR 112.2/CKW FSS: RAWLINS
Remarks: To be BVORTAC June 23.

§CHEYENNE MUNI *IFR* 1 N FSS: CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
VFR Adv Ctc App Con on 118.7 aprx 25 mi out.
App Con 119.9 122.5R 113.1T 109.9T
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1/CYS 196X 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI FSS: SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW FSS: CASPER

DUNOIR (L) BVOR 113.4/DNW FSS: WORLAND

WYOMING—*Continued*

FORT BRIDGER (L) BVORTAC 108.6/FBR FSS: ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC FSS: IDAHO FALLS

LARAMIE (L) BVORTAC 117.6/LAR FSS: LARAMIE

MEDICINE BOW (L) BVOR 114.1/MBW FSS: LARAMIE

RIVERTON (L) BVOR 108.8/RIW FSS: WORLAND

§ROCK SPRINGS MUNI *IFR* 7E FSS: ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290/RKS
VHF/DF ctc FSS

SHERIDAN (L) BVORTAC 115.3/SHR FSS: SHERIDAN

SINCLAIR RBn SBH 368/SIR FSS: RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE FSS: SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ FSS: SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W FSS: SAN JUAN
11 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100–0200Z

§PUERTO RICO INTL 6E FSS: SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9
ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391.SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP FSS: SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX FSS: ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W FSS: SAN JUAN
11 H42/9–27(1) (S–30, T–45, TT–70) BL5 F4
Remarks: U.S. Customs lndg rgts.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE SECTION II DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)				VHF (High)			
119.8	124.5	124.6	124.7	132.65	132.9	133.0	133.05
125.2	125.4	125.9	126.0	133.45	133.55	133.65	133.8
126.4	126.9	127.2	132.3	133.85	134.35	134.45	134.75
134.5				135.05	135.15	135.3	135.7
				135.8			

ATLANTA

VHF (Low)				VHF (High)			
118.9	120.0	120.3	120.8	132.25	132.75	132.85	132.9
120.9	121.2	123.8	124.1	133.1	133.35	133.7	134.45
124.4	125.2	125.5	126.4	134.55	134.6	135.15	135.75
126.6	126.8	127.55	127.8				
127.95	128.3	128.6	128.65				
128.75	135.6						

BOSTON

VHF (Low)				VHF (High)			
119.0	121.0	124.0	124.2	127.8	128.1	132.5	132.65
124.9	125.8	127.0	127.1	132.9	133.5	134.3	134.7
127.3	127.6	127.8	127.9	134.45	134.95	134.85	
128.1	128.2	132.4	132.5				
132.65	135.7						

CHICAGO

VHF (Low)				VHF (High)			
119.4	119.6	120.2	120.4	124.5	127.95	132.15	128.65
120.6	120.8	121.4	123.9	132.4	132.5	132.75	133.1
124.0	124.1	124.4	124.8	133.35	133.5	133.7	133.9
125.1	125.2	125.6	126.4	133.95	134.85	135.1	135.35
126.6	126.8	127.0	127.1	135.55			
127.5	127.6	127.7	127.8				
128.0	128.05	128.2	128.4				
128.5	128.7	132.2	132.3				

CLEVELAND

VHF (Low)				VHF (High)			
118.8	118.9	119.6	119.8	132.25	132.45	133.25	133.3
120.2	120.3	120.4	120.6	133.95	134.25	134.65	
120.8	121.2	121.4	123.9				
124.2	124.3	124.4	124.6				
125.0	125.1	125.2	125.3				
125.6	125.7	126.1	126.4				
126.8	127.15	127.45	127.5				
127.65	127.9	128.35	128.45				
128.6	134.3						

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)				VHF (High)			
119.8	124.1	125.0	125.6	127.55	128.2	132.1	132.05
125.8	126.0	127.2	127.8	132.15	132.85	133.15	127.3
132.5	132.7	133.0	133.4	133.3	133.75	133.85	134.4
134.6				134.65	134.7	135.5	135.15
				135.65			

FORT WORTH

VHF (Low)				VHF (High)			
119.4	124.4	124.6	124.7	132.2	132.35	132.45	132.55
124.8	125.0	125.5	125.6	132.75	133.25	133.35	133.5
126.0	126.6	127.3	127.7	133.55	133.7	133.95	134.25
128.1	128.3	133.1	133.3	134.55	134.85	135.1	135.35
133.9	135.0	135.6		135.4	135.6	135.75	135.8

GREAT FALLS

VHF (Low)				VHF (High)			
120.4	124.1	125.0	125.1	118.9	125.0	132.25	132.65
125.8	125.9	126.4	126.5	132.95	133.4	133.55	134.55
127.6				135.25	135.55		

HOUSTON

VHF (Low)				VHF (High)			
118.2	118.9	120.6	120.7	127.8	132.15	132.4	132.5
121.0	121.2	124.0	124.1	132.6	132.7	132.8	132.95
124.2	125.8	125.9	126.0	133.05	133.4	133.65	133.75
126.4	126.6	126.8	126.9	133.85	134.35	134.8	134.95
126.95	127.0	127.2	128.0	135.2			
128.1	128.2	128.3	128.4				
132.9	134.7						

INDIANAPOLIS

VHF (Low)				VHF (High)			
118.2	124.2	124.4	124.8	128.25	132.7	133.05	133.45
126.0	127.0	127.1	127.3	133.75	134.35	134.75	134.9
127.4	128.3	128.4	128.55	134.95			
128.8	132.2	132.6	135.1				
135.7	135.8						

ARTCC COMMUNICATIONS FREQUENCIES

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.75
126.9	127.2	128.1	128.5	134.85	135.4	135.05	135.25
132.3	132.5	132.8	133.4	135.55	135.65		
133.5	134.3	134.7					

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.5	135.4			
125.9	127.4	127.5	127.6				
127.7	127.8	128.1	128.4				
128.6	132.1	134.6	134.9				

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	125.8	127.9	128.3	128.6	132.15
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.8
127.1	127.3	127.4	128.2	134.55	134.75	134.95	135.25
128.4	128.8	132.3	132.5	135.45			
132.6	133.4	133.8	134.2				
134.4	134.6	135.05					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	127.1	127.2	134.25	134.9	135.3	135.5
127.25	127.3	127.4	127.6	135.7			
127.75	128.0	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	127.7	132.7	132.15
124.4	124.5	124.7	125.4	132.95	133.65	133.8	134.35
125.6	125.8	126.0	126.4	134.5	134.95	135.5	
127.0	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.5	132.15	133.4	133.55	133.65
125.6	125.9	126.0	126.1	133.85	134.25	134.45	134.8
127.1	127.2	127.3	127.8	134.55	135.45	135.7	
127.9	128.6	132.1	132.6				
134.6	134.8						

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.2	132.1	132.3	132.75	132.95
124.8	125.1	125.3	125.4	133.8	133.9	134.8	135.45
125.5	125.6	126.0	126.4	135.55	135.75		
126.6	126.8	126.9	127.95				
128.2	128.3	128.5	128.65				
128.7	132.6	134.6	135.1				
135.6	135.65						

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	128.15	132.05	132.8	132.65
121.2	123.8	123.9	124.2	132.85	132.95	133.3	133.7
124.6	125.5	125.7	125.9	133.75	134.35	134.7	
126.5	126.8	127.05	127.3				
127.2	127.5	127.7	127.8				
128.7							

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.40	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	128.4	133.1	134.25	134.85	135.7	

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.3	125.1	125.3	125.6	133.0	133.5	133.65	133.9
125.8	126.0	128.1	132.1	134.65	134.75	134.95	
132.6	133.0	133.5					

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.5	133.15	133.55	133.65	133.85
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
134.3	135.0	135.4					

SAN JUAN

VHF (Low)	VHF (High)			
	119.9	120.3	121.5	125.0

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 2 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed.

ALABAMA

Location and Identifier			Area Code	Telephone
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595-6151▬
		WB	(205)	595-2101 ★
Dothan DHN	DF	FSS	(205)	794-6683
Huntsville HSV		FSS	(205)	536-1254
		WB	(205)	881-2761 ◆
Mobile MOB (Bates)		FSS	(205)	342-1177
		WB	(205)	342-2762 ◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269-4368
		WB	(205)	263-0621 ◆
Muscle Shoals MSL	DF	FSS	(205)	383-6541
		WB	(205)	383-6657 ◆
Tuscaloosa TCL		FSS	(205)	758-3628

ARIZONA

Location and Identifier			Area Code	Telephone
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4-5353
Flagstaff		WB	(602)	774-1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261-4295▬
		WB	(602)	261-3868 ◆
Prescott PRC	DF	FSS	(602)	HI 5-2160
Tucson TUS	DF	FSS	(602)	294-1463▬
Winslow		WB	(602)	289-3592
Yuma YUM		FSS	(602)	725-2601▬

ARKANSAS

Location and Identifier			Area Code	Telephone
El Dorado ELD (Goodwin)		FSS	(501)	UN 3-9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2-8277

ARKANSAS (Con't)

Location and Identifier			Area Code	Telephone
Ft. Smith FSM		FSS	(501)	MI 6-1791
		WB	(501)	646-5731
Harrison HRO		FSS	(501)	EM 5-3433
Little Rock		WB	(501)	374-1546 ◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5-0652
Texarkana TXK		FSS	(501)	774-6221
Walnut Ridge ARG		FSS	(501)	TU 6-6671

CALIFORNIA

Location and Identifier			Area Code	Telephone
Arcata ACV	DF	FSS	(707)	TE 9-2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399-1787▬
Bishop		WB	(714)	873-3213 (0545-1915)
Blue Canyon		WB	Emigrant Gap	2721 (0545-1415)
Blythe BLH	DF	FSS	(714)	948-6638
Burbank				
		WB	(213)	848-6206 ◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4-2514
Daggett DAG		FSS	(714)	CL4-2223
Eureka		WB	(707)	442-2171 ◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251-8269▬
Imperial IPL		FSS	(714)	355-1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429-0337 ◆
Los Angeles LAX (International)		FSS	(213)	SP 6-2727
		WB	(213)	670-2223
Marysville MYV (Yuba Co.)		FSS	(916)	742-1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459-3003
Mt Shasta		WB	(916)	926-2227 (0730-1600)
Needles EED		FSS	(714)	326-3511

ARTCC COMMUNICATIONS FREQUENCIES

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.75
126.9	127.2	128.1	128.5	134.85	135.4	135.05	135.25
132.3	132.5	132.8	133.4	135.55	135.65		
133.5	134.3	134.7					

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.5	135.4			
125.9	127.4	127.5	127.6				
127.7	127.8	128.1	128.4				
128.6	132.1	134.6	134.9				

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	125.8	127.9	128.3	128.6	132.15
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.8
127.1	127.3	127.4	128.2	134.55	134.75	134.95	135.25
128.4	128.8	132.3	132.5	135.45			
132.6	133.4	133.8	134.2				
134.4	134.6	135.05					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	127.1	127.2	134.25	134.9	135.3	135.5
127.25	127.3	127.4	127.6	135.7			
127.75	128.0	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	127.7	132.7	132.15
124.4	124.5	124.7	125.4	132.95	133.65	133.8	134.35
125.6	125.8	126.0	126.4	134.5	134.95	135.5	
127.0	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.5	132.15	133.4	133.55	133.65
125.6	125.9	126.0	126.1	133.85	134.25	134.45	134.8
127.1	127.2	127.3	127.8	134.55	135.45	135.7	
127.9	128.6	132.1	132.6				
134.6	134.8						

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.2	132.1	132.3	132.75	132.95
124.8	125.1	125.3	125.4	133.8	133.9	134.8	135.45
125.5	125.6	126.0	126.4	135.55	135.75		
126.6	126.8	126.9	127.95				
128.2	128.3	128.5	128.65				
128.7	132.6	134.6	135.1				
135.6	135.65						

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	128.15	132.05	132.8	132.65
121.2	123.8	123.9	124.2	132.85	132.95	133.3	133.7
124.6	125.5	125.7	125.9	133.75	134.35	134.7	
126.5	126.8	127.05	127.3				
127.2	127.5	127.7	127.8				
128.7							

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.40	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	128.4	133.1	134.25	134.85	135.7	

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.3	125.1	125.3	125.6	133.0	133.5	133.65	133.9
125.8	126.0	128.1	132.1	134.65	134.75	134.95	
132.6	133.0	133.5					

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.5	133.15	133.55	133.65	133.85
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
134.3	135.0	135.4					

SAN JUAN

VHF (Low)	VHF (High)			
	119.9	120.3	121.5	125.0

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 2 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed.

Location and Identifier			Area Code	Telephone
ALABAMA				
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595-6151▬
		WB	(205)	595-2101★
Dothan DHN	DF	FSS	(205)	794-6683
Huntsville HSV		FSS	(205)	536-1254
		WB	(205)	881-2761◆
Mobile MOB (Bates)		FSS	(205)	342-1177
		WB	(205)	342-2762◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269-4368
		WB	(205)	263-0621◆
Muscle Shoals MSL	DF	FSS	(205)	383-6541
		WB	(205)	383-6657◆
Tuscaloosa TCL		FSS	(205)	758-3628
ARIZONA				
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4-5353
Flagstaff		WB	(602)	774-1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261-4295▬
		WB	(602)	261-3868◆
Prescott PRC	DF	FSS	(602)	HI 5-2160
Tucson TUS	DF	FSS	(602)	294-1463▬
Winslow		WB	(602)	289-3592
Yuma YUM		FSS	(602)	725-2601▬
ARKANSAS				
El Dorado ELD (Goodwin)		FSS	(501)	UN 3-9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2-8277

Location and Identifier			Area Code	Telephone
ARKANSAS (Con't)				
Ft. Smith FSM		FSS	(501)	MI 6-1791
		WB	(501)	646-5731
Harrison HRO		FSS	(501)	EM 5-3433
Little Rock		WB	(501)	374-1546◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5-0652
Texarkana TXK		FSS	(501)	774-6221
Walnut Ridge ARG		FSS	(501)	TU 6-6671
CALIFORNIA				
Arcata ACV	DF	FSS	(707)	TE 9-2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399-1787▬
Bishop		WB	(714)	873-3213 (0545-1915)
Blue Canyon		WB	Emigrant Gap 2721	(0545-1415)
Blythe BLH	DF	FSS	(714)	948-6638
Burbank		WB	(213)	848-6206◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4-2514
Daggett DAG		FSS	(714)	CL4-2223
Eureka		WB	(707)	442-2171◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251-8269▬
Imperial IPL		FSS	(714)	355-1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429-0337◆
Los Angeles LAX (International)		FSS	(213)	SP 6-2727
		WB	(213)	670-2223
Marysville MYV (Yuba Co.)		FSS	(916)	742-1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459-3003
Mt Shasta		WB	(916)	926-2227 (0730-1600)
Needles EED		FSS	(714)	326-3511

CALIFORNIA (Con't.)

Location and Identifier			Area Code	Telephone
Oakland OAK (International)		FSS	(415)	638–5714▬
		WB	(415)	832–5418★
				(Via San Francisco)
Ontario ONT		FSS	(714)	983–2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947–3502
Paso Robles PRB	DF	FSS	(805)	238–2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527–0242▬
Sacramento SAC	DF	FSS	(916)	428–6500▬
Salinas SNS		FSS	(408)	422–4723
San Diego SAN (Lindbergh)		FSS	(714)	296–3181▬
San Francisco		WB	(415)	589–6711★
		WB	(415)	761–2052◆
(So. San Francisco)		WB	(415)	588–3012
Santa Barbara SBA		FSS	(805)	967–2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925–3525
				(0600–2200)
Stockton SCK		FSS	(209)	466–3684▬
Thermal TRM		FSS	(714)	EX 9–5155
Ukiah UKI		FSS	(707)	462–6136

COLORADO

Location and Identifier			Area Code	Telephone
Akron AKO		FSS	(303)	345–2271
Alamosa		WB	(303)	589–2547
				(0400–2000)
Colorado Springs		WB	(303)	632–0535◆
Denver DEN (Stapleton Intl)		FSS	(303)	297–3277▬
		WB	(303)	388–3653★
Eagle EGE		FSS	(303)	328–2125
Grand Junction GJT (Walker Field)		FSS	(303)	242–1801▬
La Junta LHX		FSS	(303)	DU 4–4311
Pueblo PUB (Memorial)		FSS	(303)	948–3301
		WB	(303)	948–3376◆
Trinidad TAD	DF	FSS	(303)	846–2623

CONNECTICUT

Location and Identifier			Area Code	Telephone
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247–2855◆
New Haven		WB	(203)	469–2141◆
				(0630–1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3–5590

DELAWARE

Location and Identifier			Area Code	Telephone
Wilmington		WB	(302)	328–2755◆

DISTRICT OF COLUMBIA

Location and Identifier			Area Code	Telephone
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661–8526◆
Washington National DCA		FSS	(202)	DI 7–1442
		WB	(202)	628–0491▬
		WB	(202)	347–8016★

▬This line answered by FSS or WB. Caller can be switched to either office upon request.

FLORIDA

Location and Identifier			Area Code	Telephone
Apalachicola		WB	(305)	653–3171
Crestview CEW	DF	FSS	(305)	MU 2–2795
Daytona Beach DAB		FSS	(904)	255–4767
		WB	(904)	252–5949
Ft. Myers FMY (Page Field)		FSS	(813)	936–1857
		WB	(813)	WE 6–2057
				(0600–1400 Apr–Oct)
				(0600–2200 Nov–Mar)
Gainesville GNV		FSS	(904)	376–8521
Jacksonville JAX (Imeson)		FSS	(904)	355–3601▬
		WB	(904)	353–8605★
Key West EYW (International)		FSS	(305)	CY 6–2042
		WB	(305)	CY 6–2011
Lakeland		WB	(813)	682–4221
				(0600–2400 Nov 15–Mar 15)
				(0800–1700 Mar 16–Nov 14)
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3–6151
Miami MIA		IFSS	(305)	633–1461▬
		WB	(305)	666–2543★
Orlando ORL (Herndon)		FSS	(305)	841–5101
Pensacola PNS		FSS	(305)	HE 8–4390
St Petersburg via Tampa		WB	(813)	894–3086★
Tallahassee TLH	DF	FSS	(305)	224–7101
		WB	(305)	222–3335
Tampa TPA (Tampa International)		FSS	(813)	877–7503
		WB	(813)	872–9964★
		WB	(813)	877–1677◆
Vero Beach VBR	DF	FSS	(305)	562–2167
			(305)	464–1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832–5697★
		WB	(305)	683–3032◆

Location and Identifier		Area Code	Telephone
GEORGIA			
Albany ABY	FSS	(912)	435–6201
Alma AMG	FSS	(912)	632–4422 (0600–2200 EST)
Athens	WB	(404)	LI 3–3891 ◆
Atlanta FTY (Fulton Co.) DF	FSS	(404)	344–1551
	WB	(404)	767–0244 ★
	WB	(404)	767–3187 ◆
Augusta AGS (Bush Fld)	FSS	(404)	798–5164
	WB	(404)	798–6821 ★
Brunswick SSI (Malcom McKinnon)	FSS	(912)	638–8641
Columbus CSG (Muscogee County)	FSS	(404)	322–6458
	WB	(404)	322–1793 ◆ (0630–2045)
Macon MCN (Muni)	FSS	(912)	788–5064
	WB	(912)	788–1100 ◆
Rome	WB	(404)	232–6801 (0700–1300 Mon–Fri) (0700–1100 Sat)
Savannah SAV (Travis)	FSS	(912)	234–2257/8 ▬
	WB	(912)	233–0272
Valdosta VLD	FSS	(912)	CH 4–2361
IDAHO			
Boise BOI (Air Terminal)	FSS	(208)	343–2525 ▬
Burley BYI	FSS	(208)	678–7451
Idaho Falls IDA (Fanning Field) DF	FSS	(208)	522–9024
Lewiston	WB	(208)	743–3841
Malad City MLD	FSS	(208)	766–2971
Mullan Pass MLP	FSS	(208)	PR 5–2001
Pocatello PIH	FSS	(208)	232–2032
	WB	(208)	233–0143 ◆
ILLINOIS			
Champaign CMI (University of Ill.)	FSS	(217)	822–5211
Chicago	WB	(312)	686–2155 ◆
	WB	(312)	667–5055 ★
Joliet JOT DF	FSS	(815)	725–3144
	FSS	(312)	242–3111
Moline MLI (Quad City)	FSS	(309)	762–2412
	WB	(309)	762–1726
Peoria PIA (Greater Peoria)	FSS	(309)	697–0751
	WB	(309)	637–6422 ◆
Quincy UIN (Baldwin)	FSS	(217)	885–3251
Rockford RFD (Greater Rockford)	FSS	(815)	965–6758
	WB	(815)	963–5816 ◆ (0515–2115)
Springfield SPI (Capital)	FSS	(217)	544–9012
	WB	(217)	523–5812 ◆
Vandalia VLA	FSS	(618)	283–0478

Location and Identifier		Area Code	Telephone
INDIANA			
Evansville EVV (Dress Memorial) DF	FSS	(812)	422–8120
	WB	(812)	424–9613 ◆
Ft. Wayne FWA (Baer Field)	FSS	(219)	747–3139
	WB	(219)	747–2577 ◆
Indianapolis IND (Weir-Cook) DF	FSS	(317)	244–3316 ▬
	WB	(317)	244–2411 ★
Layfayette LAF (Purdue University)	FSS	(317)	743–1802/3
South Bend SBN (St. Joseph Co.) DF	FSS	(219)	CE 3–4433
	WB	(219)	234–3937 ◆
Terre Haute HUF (Hulman)	FSS	(812)	C–2704
IOWA			
Burlington BRL	FSS	(319)	752–4734
Cedar Rapids CID	FSS	(319)	364–3041
Davenport (via Moline Ill.)	WB	(319)	326–2677
Des Moines DSM	FSS	(515)	285–5691
	WB	(515)	284–4493 ◆
Dubuque	WB	(319)	582–3171 (0545–2105)
Mason City MCW	FSS	(515)	GA 3–7512
Ottumwa OTM	FSS	(515)	MU 2–1846
Sioux City SUX DF	FSS	(712)	258–1060
	WB	(712)	252–0244 ext 210
Waterloo ALO	FSS	(319)	AD 3–5528
	WB	(319)	234–1602 ◆
KANSAS			
Concordia	WB	(913)	243–3141
Chanute CNU	FSS	(316)	HE 1–4450
Dodge City DDC	FSS	(316)	HU 3–3441
	WB	(316)	483–3311
Emporia EMP	FSS	(316)	DI 2–7475
Garden City GCK (New Municipal)	FSS	(316)	BR 6–2531
Goodland GLD	FSS	(913)	TW 9–7154
	WB	(913)	899–2360 ◆
Hill City HLC	FSS	(913)	674–5642
Hutchinson HUT	FSS	(316)	2–4851
Manhattan MHK	FSS	(913)	PR 8–2162 (0700–1900) (Other hrs. Salina) LC PR 6–9751
Russell RSL	FSS	(913)	483–2312
Salina SLN	FSS	(913)	TA 5–5309
Topeka TOP (Phillip Billard)	FSS	(913)	232–5478
	WB	(913)	CE 4–8659 ◆
Wichita ICT	FSS	(316)	942–2261/2
	WB	(316)	942–3284 ★
	WB	(316)	943–1063 ◆

KENTUCKY

Location and Identifier		Area Code	Telephone
Bowling Green BWG (Warren County)	FSS	(502)	843–4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381–8195◆
Lexington LEX (Blue Grass)	FSS	(606)	254–5143
	WB	(606)	255–1774◆
London LOZ	FSS	(606)	864–4410
Louisville LOU (Bowman)	FSS	(502)	451–5344
	WB	(502)	368–2188◆
Paducah PUK (Barkley)	FSS	(502)	442–1551

LOUISIANA

Location and Identifier		Area Code	Telephone
Alexandria AEX DF	FSS	(318)	445–3663▬
Baton Rouge BTR (Ryan)	FSS	(504)	EL 5–2763
	WB	(504)	357–9943◆
Lafayette LFT	FSS		CE 5–3752
	WB		234–1220◆
Lake Charles LCH	FSS	(318)	477–1784▬
	WB	(318)	477–5227◆
Monroe MLU	FSS	(318)	322–3157
New Orleans MSY	FSS	(504)	943–5535
	WB	(504)	523–4311★
	WB	(504)	729–2520◆
Shreveport SHV (Greater Shreveport)	FSS	(318)	ME 1–3661
	WB	(318)	631–1141◆

MAINE

Location and Identifier		Area Code	Telephone
Augusta AUG (State)	FSS	(207)	622–6491
Caribou	WB	(207)	496–8931
Houlton HUL (Memorial International) DF	FSS	(207)	532–2475
Millinocket MLT	FSS	(207)	723–8343
Old Town OLD	FSS	(207)	827–2363
	FSS	(207)	827–4010
Portland PWM	FSS	(207)	SP 5–0602
	WB	(207)	775–3071◆

MARYLAND

Location and Identifier		Area Code	Telephone
Baltimore	WB	(301)	761–1333◆
	WB	(301)	766–0757★
Salisbury SHV (Salisbury-Wicomico)	FSS	(301)	742–7324

MASSACHUSETTS

Location and Identifier		Area Code	Telephone
Boston BOS (Logan)	FSS	(617)	LO 7–0099▬
	FSS	(617)	LO 7–0015▬
	WB	(617)	569–1773★
Nantucket ACK DF	FSS	(617)	228–0815▬
	WB	(617)	228–0971
Worcester ORH	FSS	(617)	PL 5–6083
	WB	(617)	798–2124◆ (0600-2200)

MICHIGAN

Location and Identifier		Area Code	Telephone
Alpena	WB	(517)	354–8733◆ (0645–1915)
Battle Creek BTL (Kellogg)	FSS	(616)	2–7878
Detroit DTW (Metropolitan Wayne)	FSS	(313)	PA 2–8790
	WB	(313)	274–5310★
	WB	(313)	278–7340◆
Detroit (Willow Run)	WB	(313)	482–5001◆
Flint FNT (Bishop)	FSS	(313)	CE 3–6250
	WB	(313)	CE 4–3987◆
Grand Rapids GRR (Kent County)	FSS	(616)	949–4090
	WB	(616)	949–4251◆
Houghton HTL (Houghton County)	FSS	(906)	482–0380
Houghton Lake (Roscommon County)	WB	(517)	366–5392
Jackson JXN (Reynolds Mun.)	FSS	(517)	ST 4–9640
Lansing LAN (Capital City)	FSS	(517)	482–9237
	WB	(517)	489–4603◆
Marquette MQT	FSS	(906)	GR 5–4197
	WB	(906)	226–8642◆ (0500–2100)
Muskegon MKG (Muskegon County)	FSS	(616)	798–1222
	WB	(616)	798–3048
Pellston PLN (Emmet County)	FSS	(616)	LE 9–8401
Saginaw MBS (Tri City) DF	FSS	(517)	OX 5–6621
Saulte Ste Marie SSM	FSS	(906)	632–8271
	WB	(906)	632–9461
Traverse City TVC	FSS	(616)	947–5056
Ypsilanti	WB	(313)	482–5001

MINNESOTA

Location and Identifier		Area Code	Telephone
Alexandria AXN	FSS	(612)	763–3710
Duluth	WB	(218)	722–7982◆
Hibbing HIB (Chisholm-Hibbing)	FSS	(218)	262–1820
International Falls	WB	(218)	285–5151
Minneapolis MSP St. Paul Intl	FSS	(612)	PA 9–9386
(Wold-Chamberlain) DF	FSS	(612)	PA 9–1957
	WB	(612)	PA 9–4429◆
	WB	(612)	729–9339★
Redwood Falls RWF	FSS	(507)	637–8530
Rochester RST	FSS	(507)	289–1579▬
St. Cloud	WB	(612)	251–3213 (0400–2200)
St. Paul (See: Minneapolis)			

MISSISSIPPI

Location and Identifier		Area Code	Telephone
Greenwood GRW	FSS	(601)	GL 3–2631
Jackson JAN (Thompson Field)	FSS	(601)	939–5212
	WB	(601)	939–5881◆

MISSISSIPPI (Con't.)

Location and Identifier		Area Code	Telephone
McComb MCB (Pike County)	FSS	(601)	684–7070
Meridian MEI (Key Field)	FSS	(601)	482–1243
	WB	(601)	483–3725◆
Vicksburg	WB	(601)	636–1193 (0630–1530 Mon–Fri) (0630–1130 Sat, Holidays) (clsd Sunday)

MISSOURI

Location and Identifier		Area Code	Telephone
Cape Girardeau GGI	FSS	(314)	ED 4–2803
Columbia CBI	FSS	(314)	449–1136/7
	WB	(314)	443–4332
Joplin JLN	FSS	(417)	MA 3–6868
Kansas City MKC	FSS	(816)	GR 1–5484▬
	WB	(816)	471–2131★
Kirksville IRK	FSS	(816)	MO 5–4132
St. Joseph STJ (Rosecrans Memorial)	FSS	(816)	BR 9–2394
St. Louis STL (Lambert)	FSS	(314)	PE 1–0900
	WB	(314)	731–3001◆
	WB	(314)	PE 1–3004★
	WB	(314)	848–3303★ (Hazlewood)
Springfield SGF DF	FSS	(417)	862–3588▬
Vichy VIH (Rolla National)	FSS	(314)	AX 9–3677

MONTANA

Location and Identifier		Area Code	Telephone
Billings BIL (Logan Field) DF	FSS	(406)	259–4545▬
Bozeman BZN (Gallatin Field)	FSS	(406)	586–6520
Butte BTM (Silver Bow)	FSS	(406)	723–3004
Cut Bank CTB	FSS	(406)	938–4522
Dillon DLN	FSS	(406)	683–5651
Glasgow Intl	WB	(406)	228–8395 (0300–2400)
Great Falls GTF (International)	FSS	(406)	452–6495
	WB	(406)	453–3512◆
Havre	WB	(406)	265–6424 (0430–1315)
Helena HLN	FSS	(406)	442–9902
	WB	(406)	442–8260
Kalispell	WB	(406)	756–4829
Lewistown LWT	FSS	(406)	538–3639
Livingston LVM (Mission Field)	FSS	(406)	222–2411
Miles City MLS DF	FSS	(406)	232–1503
Missoula MSO (Missoula City)	FSS	(406)	542–2230
	WB	(406)	543–7996◆

NEBRASKA

Location and Identifier		Area Code	Telephone
Chadron CDR	FSS	(308)	HE 2–3153
Grand Island GRI	FSS	(308)	382–5196
	WB	(308)	384–1907
Imperial IML	FSS	(308)	TU 2–4887
Lincoln LNK (Mun/AFB)	FSS	(402)	477–3929▬
Norfolk	WB	(402)	371–3386 (0530–2130)
North Plate LBF (Lee Bird)	FSS	(308)	LE 2–4034▬
Omaha OMA (Eppley)	FSS	(402)	341–6178▬
	WB	(402)	342–3603★
Scottsbluff BFF	FSS	(308)	635–2615
	WB	(308)	632–6822
Sidney SNY	FSS	(308)	254–3130
Valentine	WB	(402)	376–3442

NEVADA

Location and Identifier		Area Code	Telephone
Elko EKO	FSS	(702)	738–6506▬
Ely ELY (Yelland Filed)	FSS	(702)	264–2045
	WB	(702)	264–2403
Las Vegas LAS (McCarran)	FSS	(702)	736–1573/4▬
Lovelock LOL (Derby Field) DF	FSS	(702)	CR 3–2448
Reno RNO	FSS	(702)	784–5414
	WB	(702)	784–5402◆
Tonopah TPH (Nye County)	FSS	(702)	482–6421
Winnemucca	WB	(702)	623–2203

NEW HAMPSHIRE

Location and Identifier		Area Code	Telephone
Concord CON	FSS	(603)	224–7474▬
Lebanon LEB (Regional)	FSS	(603)	298–8360

NEW JERSEY

Location and Identifier		Area Code	Telephone
Atlantic City	WB	(609)	641–4327◆
Millville MIV	FSS	(609)	825–1173
Newark	WB	(201)	624–8118 624–7272★ (Via New York)
Teterboro TEB	FSS	(201)	288–9092

NEW MEXICO

Location and Identifier		Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)	FSS	(505)	243–7831▬
	WB	(505)	242–2661★
Carlsbad CNM	FSS	(505)	TU 5–2042
Clayton	WB	(505)	374–9511 (0430–1130 Mon–Fri) (0430–0930 Sat)

NEW MEXICO (Con't.)

Location and Identifier		Area Code	Telepone
Deming DMN	FSS	(505)	546-2726
Farmington FMN DF	FSS	(505)	DA 5-9271
Grants GNT	FSS	(505)	AT 7-3011
Hobbs HOB (Lea County)	FSS	(505)	EX 3-3222
Las Vegas LVS	FSS	(505)	GA 5-7411
Raton	WB	(505)	445-3891
			(0545-1225)
Roswell ROW	FSS	(505)	622-6780▬
Santa Fe SAF	FSS	(505)	YU 3-6581
Silver City	WB	(505)	538-9023
			(0530-2000 Mon-Fri)
Truth or Consequences TCS DF	FSS	(505)	894-3277
Tucumcari TCC	FSS	(505)	461-2900
Zuni ZUN	FSS	(505)	782-3770

NEW YORK

Location and Identifier		Area Code	Telepone
Albany ALB (Albany County)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173◆
Binghamton BGM (Broome County)	FSS	(607)	RA 9-6145
	WB	(607)	797-0784◆
Buffalo BUF (Greater Buffalo)	FSS	(716)	NF 2-6083▬
	WB	(716)	632-5042★
Elmira ELM (Chemung County)	FSS	(607)	RE 9-2471
Glens Falls GFL (Warren County)	FSS	(518)	RX 3-2593
Islip ISP (Long Island MacArthur) DF	FSS	(516)	JU 8-1061
(New York)	FSS	(914)	723-4330
	FSS	(212)	995-8657
Massena MSS	FSS	(315)	RO 9-2033
New York JFK (John F. Kennedy Intl)	IFSS	(212)	995-8659
	WB	(212)	656-7474★
New York (John F. Kennedy Intl and LaGuardia)	WB	(212)	995-9151◆
Poughkeepsie POU (Dutchess County)	FSS	(914)	462-3400
Rochester ROC (Monroe County)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391◆
Syracuse SYR (Hancock)	FSS	(315)	GL 4-2479
	WB	(315)	454-1214◆
Utica UCA (Oneida)	FSS	(315)	RE 6-9023
Watertown ART	FSS	(315)	NE 9-3321

NORTH CAROLINA

Location and Identifier		Area Code	Telepone
Asheville AVL	FSS	(704)	684-4401
	WB	(704)	684-6906◆
Cape Hatteras	WB	(919)	995-2321
Charlotte	WB	(704)	399-6000◆
Durham	WB	(919)	596-2326
Elizabeth City ECG (Coast Guard Air Station)	FSS	(919)	338-3808
Fayetteville FAY (Grannis Field)	FSS	(919)	483-7904
Greensboro	WB	(919)	299-9499◆
Hickory HKY	FSS	(704)	DA 7-8281

NORTH CAROLINA (Con't.)

Location and Identifier		Area Code	Telephone
High Point	WB	(919)	883-1927
			(Answered in Greensboro)
New Bern EWN (Simmons-Nott)	FSS	(919)	ME 7-2080
Raleigh-Durham RDN	FSS	(919)	787-4289
	WB	(919)	787-4092◆
			596-2446
			(Durham Exchange)
			275-6341
			(Greensboro Exchange)
Rocky Mount RMT	FSS	(919)	446-6637
Wilmington ILM (New Hanover County)	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	725-1731
	WB	(919)	724-2208◆

NORTH DAKOTA

Location and Identifier		Area Code	Telephone
Bismarck BIS	FSS	(701)	CA 3-8790
	WB	(701)	223-0920◆
Dickinson DIK	FSS	(701)	224-2989
Fargo FAR (Hector)	FSS	(701)	AD 5-8894
	WB	(701)	232-1584◆
Grand Forks GFK (International) DF	FSS	(701)	772-7201
Jamestown JMS	FSS	(701)	CL 2-4350
Minot MOT (International)	FSS	(701)	833-8112
Williston	WB	(701)	572-3198◆
			(0445-2045)

OHIO

Location and Identifier		Area Code	Telephone
Akron ACO	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246◆
Canton	WB	(216)	499-7933◆
Cincinnati CVG (Lunken)	FSS	(513)	321-1434
	WB	(513)	381-2300★
	WB	(513)	381-6706◆
(Greater Cincinnati)	WB	(513)	684-2129◆
	WB	(606)	283-3696◆
Cleveland CLE (Hopkins)	FSS	(216)	267-0149▬
	WB	(216)	267-3410★
Columbus CMH	FSS	(614)	237-8478▬
Dayton DAY	FSS	(513)	898-4639
	WB	(513)	898-4620◆
			(Vandalia Exchange)
Findlay FDY	FSS	(419)	GA 2-3237
Mansfield MFD	FSS	(419)	524-5323
	WB	(419)	522-7070
			(0600-1800)
Toledo TOL (Express)	FSS	(419)	242-4171
	WB	(419)	385-4921◆
Youngstown YNG	FSS	(216)	539-5121
	FSS	(216)	856-4806
	WB	(216)	545-2447◆
Zanesville ZZV	FSS	(614)	452-8611

OKLAHOMA

Location and Identifier			Area Code	Telephone
Ardmore ADM		FSS	(405)	CA 3–6772
		FSS	(405)	DU 9–5441
Gage GAG	DF	FSS	(405)	923–2601
Hobart HBR		FSS	(405)	GE 6–4234
McAlester MLC	DF	FSS	(918)	GA 3–4091
Oklahoma City OKC (Will Rogers)		FSS	(405)	SU 9–7452
		WB	(405)	685–4433 ★
		WB	(405)	685–6350 ◆
(Answered personally after PATWAS message.)				
Ponca City PNC		FSS	(405)	RO 5–5485
Tulsa TUL		FSS	(918)	TE 8–3316
		WB	(918)	835–2364 ★

OREGON

Location and Identifier			Area Code	Telephone
Astoria		WB	(503)	861–2722
Baker BKE		FSS	(503)	523–2961
Eugene EUG (Mahlon-Sweet)		FSS	(503)	343–7738
		WB	(503)	344–0141 ◆
Klamath Falls LMT (Kingsley Field)		FSS	(503)	TU 4–8223
		WB	(503)	882–5060 (0800–1600)
Meacham		WB	(503)	Meacham 2 (0700–1500)
Medford MFR		FSS	(503)	779–3241
		WB	(503)	773–1525 ◆
North Bend OTH		FSS	(503)	756–4916
Pendleton PDT		FSS	(503)	276–1761
		WB	(503)	276–1852
Portland PDX (International)		FSS	(503)	AT 2–7293 ▬
		WB	(503)	282–2285 ★
Redmond RDM (Roberts Field)	DF	FSS	(503)	548–2522
Salem		WB	(503)	363–6151
The Dalles DLS		FSS	(509)	PO 7–1187

PENNSYLVANIA

Location and Identifier			Area Code	Telephone
Allentown ABE (Bethlehem-Easton)		FSS	(215)	264–4539
		WB	(215)	264–2241
Altoona AOO (Blair)		FSS	(814)	793–3113
Bradford BFD (Bradford-McKean)		FSS	(814)	362–8860
DuBois DUG		FSS	(814)	328–2231
Erie ERI (Port Erie)		FSS	(814)	833–1345
		WB	(814)	833–1991 ◆
Harrisburg HAR (Harrisburg-York State)		FSS	(717)	233–5987
		WB	(717)	233–7315 ◆

PENNSYLVANIA (Con't.)

Location and Identifier			Area Code	Telephone
Philadelphia PNE (North Philadelphia)		FSS	(215)	OR 3–8020
		WB	(215)	726–7511 ◆
		WB	(215)	726–3503 ★ (0600–2300)
Philipsburg PSB (Mid-State)	DF	FSS	(814)	342–0830
Pittsburgh AGC (Allegheny)		FSS	(412)	461–8250
		WB	(412)	462–5585 ★
		WB	(412)	462–5586 ★
Pittsburgh (Greater Pittsburgh)		WB	(412)	771–2855 ◆
Reading (General Spaatz Fld)		WB	(215)	376–4103 ◆ (0800–0900 Sun, 0700–noon Sat) (0700–1630 Mon–Fri)
Scranton		WB	(717)	457–5650 ◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)		FSS	(717)	457–9600
		WB	(717)	457–5650 ◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)		FSS	(717)	368–8547
		WB	(717)	368–1866 ◆

RHODE ISLAND

Location and Identifier			Area Code	Telephone
Providence PVD (Green)		FSS	(401)	RE 7–5300
		WB	(401)	737–0051 ◆

SOUTH CAROLINA

Location and Identifier			Area Code	Telephone
Anderson AND		FSS	(803)	225–7501
		FSS	(803)	225–5031 ◆
Charleston CHS		FSS	(803)	747–5293 ▬
		WB	(803)	747–5778 ★
Columbia		WB	(803)	794–4054 ◆
Crescent Beach MBC (Myrtle Beach)		FSS	(803)	448–7187 (0800–2000) (Other hrs Florence)
Florence FLO		FSS	(803)	662–8197
Greer GSP (Greenville)	DF	FSS	(803)	Greenville 239–3738 ▬ Spartanburg 585–5470

SOUTH DAKOTA

Location and Identifier			Area Code	Telephone
Aberdeen ABR		FSS	(605)	225–5264 ▬
Huron HON (W. W. Howes)		FSS	(605)	352–3806 ▬
Pierre PIR		FSS	(605)	224–5894
Rapid City RAP	DF	FSS	(605)	FI 2–2280
		WB	(605)	342–1160 (0200–2300 daily)

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

Location and Identifier		Area Code	Telephone
SOUTH DAKOTA (Con't)			
Sioux Falls FSD (Joe Foss Fld)	FSS	(605)	ED 8-4841
	WB	(605)	338-1441 ◆
Watertown ATY	FSS	(605)	TU 6-4581
TENNESSEE			
Blountville	WB	(615)	323-8752 ◆
Bristol	WB	(615)	323-8242 ◆
Chattanooga	WB	(615)	892-3747 ◆
Crossville CSV (Crossville-Cumberland) DF	FSS	(615)	484-6711
Dyersburg DYR	FSS	(901)	285-4842 (0600-2200)
Jackson JKS (McKeller)	FSS	(901)	427-0611
Johnson City	WB	(615)	323-8242
Kingsport	WB	(615)	323-8242 ◆
Knoxville TYS (McGhee-Tyson)	FSS	(615)	577-0795
	WB	(615)	577-4805 ◆
(from Maryville)		(615)	982-3682
Maryville (See Knoxville)			
Memphis MEM DF	FSS	(901)	398-9260/9
	WB	(901)	398-2347 ★
Nashville BNA (Metropolitan)	FSS	(615)	254-6552/3
	WB	(615)	255-8732 ★
	WB	(615)	256-4468 ◆
Tri City TRI	FSS	(615)	323-7242
TEXAS			
Abilene ABI	FSS	(915)	OR 4-6915 ▬
Alice ALI	FSS	(512)	MO 4-4291
Amarillo AMA (Air Terminal)	FSS	(806)	349-1608 ▬
Austin AUS (Robert Mueller)	FSS	(512)	GR 8—6695
	WB	(512)	476-8554
Beaumont BPT (Jefferson County)	FSS	(713)	RA 2-0288
	WB	(713)	722-7011 ◆
Brownsville BRO (Rio Grande Valley International)	FSS	(512)	LI 6-6421
	WB	(512)	542-8231 ◆
Childress CDS	FSS	(817)	WE 7-3892
College Station CLL (Easterwood)	FSS	(713)	VI 6-8784/5
Corpus Christi	WB	(512)	883-3008 ◆
Cotulla COT	FSS	(512)	TR 9-2417
Dalhart DHT	FSS	(806)	CH 9-2006
Dallas Love Field DAL	FSS	(214)	FL 2-8491 ▬
	WB	(214)	FL 7-4343 ★
Del Rio	WB	(512)	775-2115
El Paso ELP (International)	FSS	(915)	778-6449
	FSS	(915)	772-6448 ▬
	WB	(915)	778-4487 ★

Location and Identifier		Area Code	Telephone
TEXAS (Con't.)			
Fort Worth FTW (Meacham)	FSS	(817)	MA 4-8471
	WB	(817)	283-1571 ★
	WB	(817)	283-3961 ◆
Galveston GLS (Scholes)	FSS	(713)	SH 4-3255
	WB	(713)	763-5670
Gregg County GGG (Longview)	FSS	(214)	MI 3-2612
Houston HOU (International)	FSS	(713)	MI 5-6693 ▬
	WB	(713)	644-1507 ★
Junction JCT (Kimble Co.)	FSS	(915)	HI 6-3214 (0600-1800) (Other hrs San Antonio)
Lubbock LBB	FSS	(806)	PO 2-5802
	WB	(806)	762-2380 ◆
Lufkin LFK (Angelena County) DF	FSS	(713)	NE 4-3544
McAllen MFE (Miller Field)	FSS	(512)	MU 2-2878/9
Midland MAF (Air Terminal)	FSS	(915)	563-2611 ▬
Mineral Wells MWL	FSS	(817)	FA 5-5922
Palacios PSX	FSS	(713)	824-2218
Port Arthur	WB	(713)	722-7011 ◆
San Angelo SJT (Mathis)	FSS	(915)	655-5638
	WB	(915)	655-9780 ◆
San Antonio SAN (International)	FSS	(512)	TA6-9575 ▬
Tyler TYR (Pounds)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	445-1276 ◆
Waco ACT	FSS	(817)	PL 2-4811
	WB	(817)	754-1582 ◆
Wichita Falls SPS Sheppard AFB, Wichita Falls Air Trml	FSS	(817)	322-2011 ▬
Wink INK DF	FSS	(915)	LA 7-3351
UTAH			
Bryce Canyon BCE	FSS	(801)	834-5311
Cedar City CDC DF	FSS	(801)	JU 6-9131
Delta DTA	FSS	(801)	4741 (0600-1800) (Other hrs Salt Lake City)
Milford	WB	(801)	387-2361 (0900-1700)
Ogden	WB	(801)	399-5806
Salt Lake City SLC (Municipal No. 1)	FSS	(801)	524-5183 ▬
	WB	(801)	364-5571
Wendover	WB	(801)	665-2382 (0430-2015)
VERMONT			
Burlington	WB	(802)	862-2475 (0600-2300)
Montpelier MPV (Barre-Montpelier)	FSS	(802)	223-2376
	FSS	(802)	878-3393 (from Burlington)

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

Location and Identifier			Area Code	Telephone
VIRGINIA				
Blackstone BKT		FSS	(703)	292–3826 (0600–2200)
Bristol		WB	(615)	323–8242◆
Chantilly (Dulles)		WB	(703)	661–8526◆
Charlottesville CHO (Charlottesville/ Albermarle)		FSS	(703)	973–3909
Danville DAN		FSS	(703)	SW 3–1163
Lynchburg (Muni-Preston Glenn		WB	(703)	239–0345◆ (0600–1930)
Newport News PHF (Patrick Henry)		FSS	(703)	877–0200
Norfolk		WB	(703)	853–3014◆
Richmond RIC (Byrd Flying Field)		FSS	(703)	737–5249▬
Roanoke ROA (Woodrum)		FSS	(703)	362–1668▬
WASHINGTON				
Bellingham BLI	DF	FSS	(206)	734–6400
Ephrata EPH		FSS	(509)	SK 4–2361
Hoquiam HQM (Bowerman)		FSS	(206)	GE 9–3432
Olympia		WB	(206)	357–8386
Seattle SEA (Boeing)		FSS	(206)	RO 2–4000
		WB	(206)	682–3655★
Spokane SFF (Felts)		FSS	(509)	KE 5–2906
		WB	(509)	624–5674◆
Toledo TDO (Toledo-Winlock)		FSS	(206)	864–2371 (0500–2100)
Walla Walla ALW (City-County)		FSS	(509)	JA 9–1413
Wenatchee EAT (Pangborn)		FSS	(509)	TU 4–5654
Yakima YKM		FSS	(509)	GL 3–9862
		WB	(509)	GL 7–4371
WEST VIRGINIA				
Beckley		WB	(304)	252–3171◆
Bluefield BLF (Mercer County)		FSS	(304)	325–6521
Charleston CRW (Kanawha)		FSS	(304)	342–1371▬
Elkins EKN (Randolph)		FSS	(304)	636–0810
		WB	(304)	636–1246◆
Huntington HTS (Tri-State)		FSS	(304)	453–3951▬
Martinsburg MRB		FSS	(304)	AM 3–9353

Location and Identifier			Area Codes	Telephone
WEST VIRGINIA (Con't.)				
Morgantown MGM		FSS	(304)	292–3632
Parkersburg PKB (Wood County)		FSS	(304)	485–6421
		WB	(304)	422–3661 (0700–1400 Mon-Fri) (0700–1200 Sat)
Wheeling HLG (Ohio County)		FSS	(304)	CR 7–1252
WISCONSIN				
Eau Clare EAU		FSS	(715)	835–9642
Green Bay GRB (Austin Straubel)	DF	FSS	(414)	494–7417▬
La Crosse LSE		FSS	(608)	785–1225▬
Lone Rock LNR (Tri-County)		FSS	(608)	583–2661
Madison MSN (Traux)		FSS	(608)	244–1033
		WB	(608)	249–6644◆
Milwaukee MKE (General Mitchell)		FSS	(414)	481–4414
		FSS	(414)	481–6116
		WB	(414)	744–7810★
		WB	(414)	744–5860◆
Wausau AUW		FSS	(715)	845–7396
WYOMING				
Casper CPR (Air Terminal)	DF	FSS	(307)	234–5053
		WB	(307)	234–1201◆
Cheyenne CYS		FSS	(307)	638–9711
		WB	(307)	638–3642◆
Lander		WB	(307)	332–2718
Laramie LAR (General Brees Field)		FSS	(307)	745–4010
Rawlins RWL		FSS	(307)	324–3241
Rock Springs RKS	DF	FSS	(307)	362–2121
Sheridan SHR (Sheridan County)		FSS	(307)	674–7426▬
Worland WRL	DF	FSS	(307)	347–4122
PUERTO RICO				
San Juan SJU (Puerto Rico Intl)		IFSS		791–1780
		WB		791–0320
VIRGIN ISLANDS				
St. Croix STT (Christiansted, Alexander Hamilton)		FSS		773–1425

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Indicate Appropriate Part. Date ------------------------------

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3–A, Notices to Airmen

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AIRMAN'S INFORMATION MANUAL PUBLICATION SCHEDULE 1966–67

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Part

Effective Date	Part 1	Part 2	Part 3	Part 3A
June 9				May 27
June 23			June 6	June 6
July 7				June 27
July 21			July 1	July 1
August 4				July 25
August 15	July 15			
August 18			August 1	August 1
September 1				August 22
September 15			August 29	August 29
September 29				September 19
October 13			September 26	September 26
October 27				October 17
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12
January 5			December 16	December 16
January 19				January 9
February 2			January 16	January 16
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February 16				February 6
March 2			February 10	February 10
March 16				March 6
March 30			March 13	March 13
April 13				April 3
April 27			April 10	April 10
May 11				May 1

Editorial Staff Telephone Number, Area Code 202—WO 2–4063.

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930–1730 Sun. Up to 12,500'.

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500' MSL.

Gadsden:1000–1700 Weekends. Up to 12,500'.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500'.

ARIZONA

Chandler:090–1700 weekends. Up to 12,500'.

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100' MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000' MSL and 24,000' MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800-1700. Up to 12,500'.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000' MSL; 3 mi ESE. Up to 7000' MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000' MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000'.

ARKANSAS

Ashdown: Weekends. 1200 to SS. Up to 12,500'. (Mostly in summer mos.)

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000' MSL.

Fayetteville: 6 mi N Drake Arpt. Mon thru Fri 1900Z–SS. Sat, Sun, Holidays 1400Z–SS. Up to 12,500'.

Jonesboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200–SS. Up to 12,500'.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500'.

Avenal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0300Z occasional jumps week days 0000–0300Z; up to 10,000'.

Black Point: Sky diving weekends up to 12,500'.

Black Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500' MSL.

●**California City Arpt:** NW of fld. Dalgt weekends and holidays. Up to 20,000' MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500'. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

Clay: 4 NM N. 1600–0800GMT daily. Up to 3000'.

Clear Lake: Into Clear Lake at 39°05'N, 122°51'W. Mon thru Sat. Up to 4400' MSL.

Davis, Yolo Co. Intl Arpt: 800' E of apch end rnwy 36. Daily, SR-SS. Up to 12,500' MSL.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700' MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000' MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800'–15,000', opening at absolute alts of 2000'–2500'. Center of drop zone lctd at 36°38'N, 121°46'W in Restricted Area R–2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000'.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,500'.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000'.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500' MSL.

Imperial Beach: Weekends. 0800–1200. Up to 1500'.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000' MSL.

Lake Berryessa: Lat 38°31', 122°12'. Mon thru Sat. Up to 2000' MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld. 7 days a wk. SR–SS.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends and holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy btn Linden and Sacramento VORs. Up to 9,500'.

Los Banos Arpt: 3.5 mi SE; edge of V–113. Suns SR–SS. Up to 10,000'.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000' MSL.

Milpatas, King Skylanes Arpt: 3 mi E; Weekends. From 12,500'.

Ojai, Henderson Arpt: Weekends from 14,000' MSL 3 mi SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500' MSL. Weekends and holidays.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000' MSL.

Piru: Tues-Fri. 2 mi E. Up to 14,500'.

San Diego, Brown Fld: NW corner of fld. Weekdays, morning hrs. Up to 15,000'.

San Diego–County Arpt (Gillespie Fld): Up to 20,000' MSL, chute opening alt aprxly 2700–3000' MSL in vcnty of arpt.

San Diego, Otay Reservoir: Weekdays and ngts. Up to 15,000'.

San Diego Co.: 5 mi ESE Brown Fld, adj Mexico. Weekdays and ngts. Up to 15,000′.

Santa Maria Arpt: Weekends and holidays. Up to 15,000′ MSL. 6 NW.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000′.

Sonoma Valley: Weekends (occasionally during the wk.) 0800–SS. Up to 15,000′.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Daylgt hrs. Up to 8,000′.

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Suns and holidays. Up to 18,500′ MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 and 20,000′ AGL.

●**Colorado Springs, USAF Academy Air Strip:** Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 18,000′ MSL.

Denver: 2.5 mi SE of Cherry Creek Dam. 0800–SS, weekends, and holidays. Up to 15,000′ MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays. Dalgt hrs. Up to 13,000′.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Littleton, Columbine Arpt: 2 mi S. Up to 13,500′ AGL.

Longmont Mun Arpt: Weekends and holidays up to 15,000′.

Sedalia, Littleton Arpt: Weekends and holidays. Up to 14,500′ MSL.

CONNECTICUT

Bethany: Weekends and Wed (P.M.). 0800–SS. Up to 12,500′.

Burlington, Johhnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200–SS. Up to 12,500′.

Harwinton: 0800–dusk. Weekends. Up to 7200′.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Buchan Arpt: 7 mi S of Venice. Weekends and holidays. Up to 15,500′.

Clewiston, Airglades Arpt: Up to 12,000′.

Deland Mun Arpt: Up to 7,000′ daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500′.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

Gainesville: Weekends 0800–1600. Up to 9,600′. Up to 12,000′.

Homestead AFB: Occasionally. Up to 1,000′ MSL.

Howey Arpt: Weekends. Up to 10,000′.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800–1600. Up to 15,000′. (2) 2 mi NW of Herlong Fld. Weekends. 0800–1600. Up to 7,500′.

Kissimmee Arpt: Daily and weekends. Up to 12,000′.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500′.

Palatka: Suns. 0800–1600. Up to 7500′.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.

Santa Rosa Island: Daily. Up to 12,500′.

Umatilla Arpt: 32 NM 325° rad Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.

Venice Arpt: 7 mi S. Weekends and holidays. Up to 15,500′.

Zephyrhills Ahpt: Sundays, occasionally weekdays. Up to 12,500′.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500′ AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500′.

Cohutta: 10 mi N Dalton. Weekends. 1200–1900. Up to 13,500′.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500′.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

Fitzgerald: Daily, mostly on Sats and Suns. 0900–1700. Up to 12,500′.

Fort Benning: Daily. 0600–2000. Up to 18,000′.

Ft. Steward: Daily, Sats and Suns. Up to 15,000′.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935′ MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000′.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

Waycross: Weekends. 1000–1600. Up to 12,500′.

IDAHO

Weiser: 1500Z–SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.

Alton, Civic Meml Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.

Antioch: 3 mi N.

Breese Arpt: ½ mi N. Up to 7,000′.

Chicago, Hammond Arpt: Weekends. Up to 12,500′.

Clinton: ½ mi E. Weekends. 1200–SS. Up to 10,000′.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

Dixon, Walgren Meml Arpt: Weekends, holidays and occasionanl weekdays. 0900—SS. Up to 10,000′.

Hebron Arpt: Daily.

Hillsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

O'Fallon: N on edge of town. Weekends. 1200–1800. Up to 7500′.

Pekin: 3 mi S. Weekends. 1200–SS. Up to 15,000′.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500′.

Springfield: Weekends. 1200–SS. Up to 10,000′.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500′.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500′.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

Shelbyville: 5 mi N. Wed, Sat and Sun. 1000–SS. Up to 15,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.

Des Moines: Between Camp Dodge and Johnston Station. Thurs and Sun. 1300–SS.

Mechanicsville: 5S, 2 mi radius. Weekends and occasionally wk days SR–SS. Up to 15,000′.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

Northwood: Weekends. 0900–SS. Up to 13,000′.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500′.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000′.

KANSAS

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000′.

Fort Leavenworth Military Reservation: Weekends and holidays Occasionally weekdays. Up to 12,500′.

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Junction City Mun Arpt: Suns 1400Z–SS. Up to 13,700′.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500′.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000′. Occasionally ngts.

Oxford: Weekends. 1300–1900. Up to 13,000′.

KENTUCKY

● **Ashland, Boyd Co.:** Wed and wkends.

Fort Knox: 3 mi SW of Godman AAF weekends and holidays, 1300–1700. Up to 10,000′.

Greenville-Muhlenberg Co. Arpt: Suns and holidays 0700–SS. Up to 12,500′.

LOUISIANA

Abbeville: Weekends. 0900–SS. Up to 17,000′.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500′.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900–SS. Up to 12,000′.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.

Fort Polk, Polk AAF: 2 nmi radius.

Thibodaux: 1 mi E on Hwy 1. Weekends. 0900–SS. Up to 13,000′. 20 mis N. Weekends. SR–SS. Up to 12,500′.

Youngsville: Weekends. 0900–SS. Up to 13,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

● **Cumberland Mun:** Up to 12,000′.

Edgewood: 35 sml on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

● **Frederick Mun:** Glider activities wkends and holidays.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

Patuxent River NAS: On V–213. 2200–2400 weekdays; 1500–2100Z Sat, Sun and holidays. Up to 12,500′.

Stevensville, Carroll's Arpt: Weekends. Up to 12,500′.

MASSACHUSETTS

Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up to 13,500′ MSL, lat 42°28′, long 71°42′.

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Day time only. Up to 15,000′.

Orange Muni Arpt: Day time only. Up to 15,000′.

Pepperell Arpt: Day time only. Up to 15,000′.

Tauton Muni Arpt: Day time only. Up to 15,000′.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500′.

E. Tawas, Iosco Arpt: Up to 13,500′.

Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500′.

Gaylord: Weekends. Dawn-Dusk. Up to 12,500′.

Grand Rapids (So. Kent Fld): Weekends. 0900–dusk. Up to 12,000′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Lake City: 6mi E, 1 N. Weekends. SR–SS. Up to 12,500′.

LaSalle: 5 mi S of Custer Arpt. 0900–SS. Up to 12,500′.

Marksfield, Lawton: Sat and Sun. 0900–SS. Up to 15,000′.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Midland: Sat, Sun, Wed. SR–SS. Up to 12,500′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

● **Nunica:** 1 mi SE. Up to 15,000′.

Saginaw Arpt: Weekends. Up to 13,000′.

Saline Arpt: 1 mi SW. 0800 to SS Sats and Suns, and holidays. Up to 18,000′.

Tecumseh Arpt: Daily. Up to 17,500′.

Traverse City: Weekends. SR–SS. Up to 12,500′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Monticello, Flynn Arpt: Wk-end. Up to 12,000′ AGL.

Rosemount: 3 mi SE. Up to 2500′.

Stanton, Carleton Arpt: Wed 1600–SS during June; July and Aug wk-ends 0800–SS. Up to 14,500′ AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000′.

Hattiesburg: During the week. SR–SS. Up to 12,500′.

Jackson: 10 mi SW. 0900–SS. Weekends. Up to 12,500′.

Louisville: 5 mi S. Weekends. Up to 12,500′.

Lucedale, Farmco Arpt: Weekends. Up to 12,000′.

Ocean Springs, Gulfpark Arpt: SR–SS Sats, Suns, holidays and occasional wk days. Up to 12,500′ AGL.

MISSOURI

Chesterfield: Weekends. Up to 10,000′.

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lohmaster Arpt: Weekends and holidays. Up to 11,000′.

Valleroy: Weekends. 1200–1800. Up to 8000′.

Vichy, Rolla Natl Arpt: Daily SR–SS. Up to 12,500′.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800–dusk. Up to 10,000′.

Glendive: Sat and Sun, occasionally wk days.

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Kalispell: Weekends. 0700–2000. Up to 10,000′.

Laurel: Sat, Sun. 0900–1800. Up to 10,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500′ MSL.

Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500′.

NEW HAMPSHIRE

Antrim Feather Air Park: Weekends. Dawn-dusk. Up to 12,600′.

Hollis: 3 mi SW Boric Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600′.

Hoodsett: Tues, Sat Sun, and holidays. 0900–2100. Up to 12,500′.

Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900–dusk. Up to 5,200′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500′.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

Manville, Decker Arpt: ½ mi SW rnwy. Dawn to dusk. Up to 15,000′.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500′.

NEW MEXICO

Alamogordo Mun Arpt: Dalgt hrs Fri, Sat, Sun. Up to 16,000′ MSL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000′.

Belen: 3 to 5 mi SE. Weekends and holidays. Up to 18,000′.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.

Greene Arpt: Within 5 mi radius. Daily 1100Z–SS. Up to 12,500′.

Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. Up to 13,000′ AGL.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500′.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MSL.

Randolph Arpt: Daily. Up to 15,000′.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000′.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500′ MSL

Wallkill (Galesville): Every day of wk. 1000–2130. Up to 14,000′.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500′.

Charlotte, Brackenborough Arpt: 5 mi N. Daily 0800–dusk. Up to 14,000′.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900–1630. Up to 13,000′.

New River MCAF: On V157 1100–0300 daily from 23,500′.

Oak Grove OLF: Sat, Sun and holidays from 0800–1830. Up to 15,000′.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000′.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12 000′.

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

Ada Arpt: 2 mi N. Weekends 1400–2300Z. Up to 9500′ AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000′.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500′.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000′

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000′.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500′ AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.

● **Galloway, Columbus Arpk:** Wkends, holidays dalgt hrs and Wed 1600–SS.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.

Lenox Arpt: Sat and Sun. 0900 2100 EDST. Up to 12,500′.

Lima: Weekends. 1200–SS. Up to 12,500′.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000′ MSL.

Oberlin: Fri. 1600–dark. Up to 12,500′.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500′ AGL.

Piqua Arpt: Up to 12,000′. Daily.

Roundhead: Weekend. 1200–SS. Up to 12,500′.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500′.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500′.

South Dayton Arpt: Up to 18,000′. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.

Valley City: 3.5 mi W. Weekends. Up to 12,500′ AGL.

Van Wert: Mon-Fri 2100Z–SS; Sat, Sun SR-SS. Up to 12,500′ AGL.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Claremore: Weekend. 0800–SS. Up to 12,500′.

Dewey: Weekends. 0800–SS. Up to 12,500′.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500′.

Frederick: Weekend. Dawn-dusk. Up to 10,000′.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stillwater: 5 mi W. Weekend. 0800–SS. Up to 12,500′.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Albany: 1½ mi SE of arpt. Weekends. 1000–SS. Up to 13,000′ MSL.

●**Ashland Arpt:** Dalgt. wk ends, holidays and evenings. Up to 9,000′.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 2 mi N and 5 mi NE. Periodically June thru Sept. From 2000′ AGL.

Cottage Grove: 1½ mi E of city. Wed, Thurs, Fri, Sat 1600–2030. Up to 10,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR–SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR–SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

Portland: ½ mi S and 3 mi E of Scholl Arpt, Orchards, Wash.

Portland: 4 mi N Aurora Flight Strip, Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

Buffalo Springs Arpt: Weekend. SR–SS. Up to 15,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Maytown: 2 mi NE. Weekend. SR–SS. Up to 12,500′.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

Mountville, Gordon Sport Arpt: Weekend. Dawn-dusk. Up to 15,000′.

New Hanover Arpt: Most activities weekends. Up to 12,500′.

Palmyra, Reigles Arpt: Wed and Sun. Dawn-dusk. Up to 15,000′.

Pottstown Arpt: Weekends. Up to 8000′.

●**Quakertown, Upper Bucks Co. Arpt:** 7 mi E. Suns 0900–SS. Up to 12,500′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

Darlington Co. Arpt: Daily SR–SS. Up to 12,500′ AGL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR-SS. Up to 12,500′.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens, McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Caddo Mills Airfield: 18.5 NM due E of Dallas VOR. 0200Z thru 0500Z and 1900Z thru 2300Z Sats and Suns. Up to 2040′ MSL.

Clear Springs Arpt: Suns. Up to 12,500′.

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AFB. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampasas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

Littlefield Mun: 2200Z–SS daily. SR–SS Sat, Sun, holidays. Up to 12,000′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

Rio Vista: 2 mi W. Tues, Thurs, Sat, and Sun. 0800–2000. Up to 12,500′.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

Hill AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Centerville: 4 mi W. Sat and Sun. SR–SS. Up to 15,000′.

Forest, New London Arpt: Daily. Up to 11,000′.

Hopewell Arpt: Weekends. Up to 9000′.

Leesburg: 2 nmi N or 10 nmi Herndon VOR on 340° radial. Weekends. Up to 12,500′. Occasional ngt jump.

Manassas: On the Herndon 195 radial 15 mi. Weekends and holidays. Occasional ngt jumping. Up to 12,500′.

Midland: 8 nmi from CSN VOR on 120° rad. Weekends. Up to 12,000′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000′.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

Quantico MCAS: NW end of base. Weekdays 1600–1800, Sat 0900–1100 and holidays. Up to 13,000′.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Muni Arpt: Cont. Up to 12,000′.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

Bellingham Arpt: 6NE. 7days per wk. Up to 12,500′ AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000′ MSL.

Enumclaw Arpt: Weekends and holidays. Up to 15,000′.

Issaquah-Sky Ranch Arpt: Wed, Fri and weekends. Up to 7000′.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 3 mi N SR to 1 hr after SS. Up to 12,000′ AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500′.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

●**Lake Delton, Dells Arpt:** ¾ mi N. McBoyle. Daily 1900–1920Z, 2300–2320Z, 0100–0120Z. Up to 7800′ MSL.

Lake Geneva Wal-Co. Farms Arpt: Wed, Sat and Sun SR—one hr after SS. Up to 15,000′.

New Holstein Arpt: Weekends. SR-SS. Sat and Sun. Up to 12,500′.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500′.

Stevens Point Mun Arpt: 2 mi NW. Daily. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500′ MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500′ AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000′.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred Route Starting and Terminating Fixes—Preferred routes generally commence and terminate at fixes on or near the perimeter of the terminal area.

Depicted on the Area Charts, produced by Coast and Geodetic Survey, are the normal routes between the airport and the preferred route starting/terminating fixes. Whenever a fix is shown in **bold-face type**, pilots should refer to the appropriate Area Chart for the routing he may expect prior to or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names aer spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston	V2 **GDM** (L-25)
Kennedy	V91 **RVH** (L25)
LaGuardia	V91 V487 **Stamford** (L25)
Newark	V489 **Budd Lake** (L25)

ALBUQUERQUE

Denver	**Aden** V19W SAF V83 PUB V19E **IOC** (L-4, 6)
Kansas City	**Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L-6)
Los Angeles	**GNT** V12 EED V208 TNP V264S **ONT.** (L-4, 3)
Phoenix	**GNT** V190N SJN V190 **Lake.** (L-4)

ATLANTA METRO AREA

Birmingham	**Chattahoochee** V18N ANB (L20, 14)
Charlotte	**Conyers** V66 FML (L-20)
Cincinnati	Crabapple V97 **Dry Ridge** (L-20, 22)
Chicago	**Crabapple** V51 **CGT** (L-14, 20, 21, 23)
Dallas	**Chattahoochee** V18N ANB V18S TCL V18 MLU V94 V477E **Forney** (L20, 14, 18, 17, 13)
Dulles	**Conyers** V66 FML V454 LVL V155 GVE V39E **Brandy** (L20-22)
Houston	Chattahoochee V18N ANB V18S TCL V18 MEI V194 MCB V222 LCH V222N **Monument** (L20, 14, 18)
Kennedy	**Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
Jacksonville	**Griffin** V243 AYS V243W **Callahan** (L20, 18)
La Guardia	**Conyers** V66 FML V454 LVL V157 RIC V20 V213 **RBV** (L-20, 22, 24)
Memphis	**Chattahoochee** V18N ANB V18 BHM V176N HLI (L20, 14)
Miami	**Brooks** V97 ABY V159 V159W CTY V7 LAL V157 **Cypress** (L20, 18, 19)
Newark	**Conyers** V66 FML V454 V157 V20 V213 V29 V433 **Rocky Hill** (L-20, 22, 24)
Orlando	**Griffin** V243 AYS V157 OCF V159W **Clermont** (L20, 18, 19)
Pittsburgh	**Crabapple** V97 TYS V115 PKB V119 **HLG** (L-20. 22, 24)
Tampa	**Brooks** V97 ABY V159 V159W CTY V7 Homo V35E **Hazel** (L20, 18, 19)
Washington	**Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta	ANB V18 **Sargent** (L-14, 20)
New Orleans	TCL V18 MEI V455 HBG V455W **Madison** (L14, 18 17)
Pittsburgh	GAD V115E CHA V115 PKB V119 **HLG** (L-14, 22, 24)

BOSTON METRO AREA

Albany	V14 **Melrose** (L-25)
Buffalo	V14 **Bellona** V31 ROC V142 **Grant** (L-25)
Cleveland	V14 ALB V72 Hadley V232 **Mentor** (L-25, L-24)
Kennedy	**PUT** V475E V16 **RVH** (L25)

BOSTON METRO AREA—Continued

LaGuardia	**Millbury** V3 V445 **Stamford** (L25)
Newark	**Millbury** V3 V292 **Budd Lake** (L25, 24)
Philadelphia	**Millbury** V3 **Warrington** (L25, 24)
Rochester	V14 Bellona V31 Fishers (L-25)
Washington	**PUT** V308 **North Beach** (L25, 24)
Windsor Locks	**PUT** PUT 295 rad Meadow, (L25)

BUFFALO

Boston	**GEE** V14 **GDM** (L-12, L-25)
Cleveland	**Langford** V464 DKK V14 **Mentor** (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 **QG** (L-12, 23)
Kennedy	V252 BGM V270 V34 **RVH** (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 **Liberty** (L-12, 25)
Midway	V84 LAN V218 **Surf** (L-12, 23)
Newark	V252 GEE V147 TOH V226 **Budd Lake** (L12-25)
O'Hare	V84 **OBK** (L12, 23)
Philadelphia	V33 PSB V238 **ESR** (L-12, 24)
Pittsburgh	V115 **EWC** (L-12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn **DCA** (L12-24)

CHARLESTON, W. VA.

Cincinnati	V128 **California** (L22)
Cleveland	V115 PKB V59 V427 V40 **Sharon** (L22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 **HLG** (L-22, 24)
Washington	V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

Atlanta	FML V194 Homer V20N **OCR** (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 **RBV** (L-20, 22, 24)
Miami	FML V37 ALD V157 **Cypress** (L20, 18, 19)
Washington	New London V454 LVL V157 **Ironsides** (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	**EON** V171 SCJ V243 **Kennesaw** (L23, 21, 14, 20)
Denver	**Malta** V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	**Musky** V100 ELX V218 **Troy** (L23, 12)
Dulles	**EON** V144 **Blue Ridge** (L23, 24)
Kennedy	V6 SEG V170 V276 **RBV** (L23, 24)
Indianapolis	**EON** V128 (L-23)
La Guardia	V6 V433 **Liberty** (L-23, 24)
Los Angeles	**Malta** V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	**Big Run** V173 CAP V9 Kerrville (L-23, 21, 14)
Miami	**EON** V171 SCJ V243 Harrison V97 ABY V159 GEF V159W CTY V7 LAL V157 **Cypress** (L23, 21, 14, 20, 18, 19)
Minneapolis	**Malta** V218 RST V82 **FGT** (L23, 11, 10)
Newark	V6 SEG V30 **Rocky Hill** (L-23, 24)
Philadelphia	V6 PSB V238 **ESR** (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 **EWC** (L23, 24)
San Francisco	**Malta** V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
● St. Louis	**Big Run** V191 V14 **Staunton** (L23, 21)
Tampa	**EON** V171 SCJ V243 Harrison V97 ABY V159 GEF V159W CTY V7 Homo V35E **Hazel** (L23, 21, 14, 20, 18, 19)
Tulsa	**API** V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	**EON** V144 ESL V4 **HRN** (L23, 24)

From Midway only

Cleveland	**Crib** V6 SKY V232 **Vermillion** (L23)
Des Moines	**API** V8 CVA V233 CID V172 TNU (L23-11)
Kansas City	**API** V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co.	**Crib** V10 **Milan** (L23)
Omaha	**API** V8 CVA V233 CID V172 EOL (L23, 11)
Willow Run	**Crib** V10 **Milan** (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 **Vermillion** (L-23)
Des Moines	V172 **TNU** (L-23, 11)
Kansas City	V84 BDF V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co.	V172 Musky V100 LeRoy V30 LFD V10 **Milan** (L23)
Omaha	V172 EOL (L23, 11)
Willow Run	V172 Musky V100 LeRoy V30 LFD V10 **Milan** (L23)
Windsor	V100 V218 **Troy** (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 **OCR** (L-21, 22, 20)
Charleston W. Va.	V128S YRK V128 (L22)
Chicago	V97 **CGT** (L-21, 23)
Detroit (City)	V275 **SVM** (L21, 23)
Indianapolis	V97 (L-21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 **Liberty** (L22-24)
Louisville	V47 ABB V51 (L-21)
Metro Wayne Co.	V275 **Milan** (L21, 23)
Miami	V47 ABB V51 CSV V51W Harrison V97 ABY V159 V159W CTY V7 LAL V157 **Cypress** (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 **Rocky Hill** (L22-24)
Pittsburgh	V128S YRK V44 PKB V119 **HLG** (L22-24)
● St. Louis	V47 ABB V44 **Mounds** (L21)
Willow Run	V275 **Milan** (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 **GDM** (L-23, 24, 12, 25)
Buffalo	V14N **Crystal Beach** (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 **Niles** (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	V42E QG V90 (L-23)
Kennedy	**ACO** V30 SEG V170 V276 **RBV** (L24)
Indianapolis	**CLE** V14 (L23)
La Guardia	**ACO** V30 CIP V6 Amboy V433 **Liberty** (L-24)
Metro Wayne Co.	V42E V103 **Lasalle** (L23)
Miami	V443 V133 V35 V185 Dover V157 **Cypress** (L23 22, 20, 18, 19)
Newark	**ACO** V30 **Rocky Hill** (L-24)
Philadelphia	**ACO** V30 PSB V238 **ESR** (L-24)
Pittsburgh	**ACO** V297 **EWC** (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	**ACO** V103 IRL V37 Millsboro V92 FRR V4 **HRN** (L-24)
Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L–23, 24, 22)
Indianapolis	Grindell V210 (L–23)
LaGuardia	**APE** V12 V106 V6 V433 **Liberty** (L23, 24)
Pittsburgh	APE V12 **HLG** (L–23, 24)
St. Louis	V12N V210 **Staunton** (L23, 21)
● Toledo	V38 FDY V47 (L–23)
Washington	APE V144 ESL V4 **HRN** (L–23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	**Lakeside** V114 Claude (L–13)
Atlanta	**DAL** V278 BHM V18 **Sargent** (L–13, L–14, L–20)
Dulles	**DAL** V278 V16 BNA V140 MOL V251 V174 **Blue Ridge** (L13–14–21–22)
El Paso	**Joshua** V94 INK V16 **RIO** (L–13, 4)
Houston	**Trinity Fork** V477 LOA V477W **Fairbanks** (L–13, 17)
Los Angeles	**Joshua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L–13, 4, 3)
Memphis	**DAL** V278 TXK V16 Walls (L13–L14)
Midway	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
New Orleans	**DAL** V114 **French** (L–13, 17)
O'Hare	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
San Antonio	**Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L–13, 15)
Tulsa	**DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L–13, 6)
Washington	**DAL** V278 V16 BNA V140 MOL V16N GVE V16 **Ironsides** (L–13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 **CGT** (L–23)
Cleveland	V275 V47W FDY V8 MFD V246 **Sharon** (L23)
Detroit/City	V275 **SVM** (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V275 **Milan** (L23)
Willow Run	V275 **Milan** (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N **Langston** (L23–21–6)
Washington	V12 APE V144 ESL V4 **HRN**(L–23, 24)

DENVER METRO AREA

Chicago	**DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L–8, 11, 23)
Kennedy	**DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L–8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 **RBV** (L12, 24)

From City and Windsor only

Newark	V221 ERI V170 SEG V30 **Rocky Hill** (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 **ESR** (L–12, 24)
Ft. Wayne	**SVM** V170 Leslie V45 JXN V221 (L–23)
Midway	**SVM** V170 V84 V7E V116 (L–23)
Milwaukee	**SVM** V170 PMM V30S **Pike** (L–12, 23)
O'Hare	**SVM** V170 V84 **OBK** (L–23)

From Metro or Willow Run only

Buffalo	V221 V90 V14N **Crystal Beach** (L–12)
Cleveland	**Stripe** V297 **Vermilion** (L23)
Ft. Wayne	**Dexter** V221 (L–23)
Midway	**Pinckney** V170 V84 V7E V116 (L–12, 23)
Milwaukee	**Dexter** V116 JXN V45 Leslie V170 PMM V30S **Pike** (L–12, 23)
O'Hare	**Pinckney** V170 V84 **OBK** (L–12, 23)
Pittsburgh	**Stripe** V133 Bay V6 V42 ACO V297 **EWC** (L23, 24)
Rochester	V221 V90 V14 V2 (L–12)
Washington	**Stripe** V133 ZZV V144 ESL V4 **HRN** (L23, 24)

EL PASO

Dallas	**HUP** V66 MAF V16S BGS V16 ABI V66 Denton V114 **Lakeside** (L–4, 13)
Los Angeles	**EWM** V94 GBN V461 BXK V16 **ONT** (L–4, 3)
San Antonio	**HUP** V198 **Boerne** (L–4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 **PRR** (L–19)

HOUSTON METRO AREA

Atlanta	**LaPorte** V20S LCH V20 LFT V70 MVC V20 **Tyrone** (L–17, 18, 14, 20)
Dallas	**Gulf Coast** V477E **Forney** (L–17, 13)
New Orleans	**LaPorte** V20S LCH V20 **Turtle** (L–17)
San Antonio	**Andrau** V222 **Hunter** (L–17, 15)

INDIANAPOLIS

Detroit	V11 **SVM** (L–23)
Evansville	V11W SCJ V11E (L–21)
Kennedy	V50 DAY V12 V106 V276 **RBV** (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 **Liberty** (L23, 24)
Metro Wayne Co.	V1 V10 **Milan** (L23)
Midway	V97W V97 **CGT** (L–23)
Newark	V50 DAY V12 V106 V30 **Rocky Hill** (L23, 24)
Pittsburgh	V50 DAY V12 **HLG** (L–23, 24)
● St. Louis	V14 **Staunton** (L21)
Willow Run	V11 V10 **Milan** (L23)

JACKSONVILLE

Atlanta	**Kings** V5E DBN V5 **MDU** (L18, 20)
Dulles	**Clinch** V3E SAV V3 RDU V155 GVE V39E **Brandy** (L18–20–22)
Kennedy	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 **BGT** (L–18, 20, 22, 24)
LaGuardia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 **RBV** (L–18, 20, 22, 24)
Miami	**Blue Jacket** V267 **New River** (L–19)
Newark	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 **Rocky Hill** (L–18, 20, 22, 24)
Norfolk	**Clinch** V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN V266 Burdette (L18–20–22)
Orlando	**Blue Jacket V267** Woodruff (L–18, 19)
Philadelphia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 **OOD** (L–18, 20, 22, 24)
Washington	**Clinch** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L–18, 20, 22)

KANSAS CITY METRO AREA

Midway	**Excelsior** V116 **JOT** (L-21, 23)
O'Hare	**Excelsior** V116 **JOT** (L-21, 23)
St. Louis	**BSP** V12 **MTS** (L-21)
Wichita	**Bonner Springs** V12 De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 **Liberty** (L-21, 22, 24)
Newark	V4 CRW V106 V30 **Rocky Hill Hill** (L-21, 22, 24)

MEMPHIS

Atlanta	Wyatte V176 S HAB V176 BHM V18 **Sargent** (L14–L20)
Dallas	Prichard V16S PBF V16 **DAL** (L13–L14)
Dulles	**Moscow** V16S GHM V16 V140 MOL V251 V174 **Blue Ridge** (L14, 21, 22)
Midway	Cuba V9W V9 **JOT** (L-14, 21, 22)
New Orleans	Savage V9W GRW V9 **Madison** (L14–L17)
O'Hare	Cuba V9W V9 **JOT** (L-14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 **Ironsides** (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta	**MIA** V7 LAL V157 AMG V5 **DU** (L19–L18–L20)
Charlotte	**MIA** V7 LAL V157 ALD V37 FML (L19–L18–L20)
Chicago	**MIA** V35 FMY V7 LAL V157 AMG V51 DBN V267 TYS V97 **CGT** (L19, 20, 22, 21, 23)
Cleveland	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 **Sharon** (L19, 20, 22, 21, 23)
Detroit (city)	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 **QG** (L19, 20, 22, 21, 23)
Dulles	**Guppy** drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E **Brandy** (L19–L20–L22)
Habana	**Gary** V51 EYW drct SF/Rbn or **PRR/Rbn** B19 EYW drct SF. Rbn (L19)
Kennedy	**Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L-19, 20, 22, 24)
Jacksonville	**Martin** V3E PBI V3 DAB V3E **Shiloh** (L-19)
La Guardia	**Guppy** drct Halibut Control 1150 ILM V1W V213 **RBV** (L-19, 20, 22, 24)
Metro Wayne Co.	**MIA**. V7 LAL V157 ALD V37 PSK PSK V59 CTW V427 BSV V40 CLE V42 V103 **Lasalle** (L19, 20, 22, 21, 23)
Newark	**Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L-19, 20, 22, 24)
Pittsburgh	**MIA** V7 LAL V157 ALD V37 **AGC** (L19–L20–L22–L24)
Tampa	**MIA** V7 V35 **Hansen** (L19)
Washington	**Guppy** drct Halibut Control 1150 ILM V1 ISO V157 **Ironsides** (L-19–L20–L22)
Willow Run	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 **Lasalle** (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 **API**; or **Taylor** V7E V116 **Surf** (L-12, 23)
Detroit	V2S MKG V2 **SVM** (L-12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 **RBV** (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	**Prescott** V2 V97 V171 V6 **API** (L-10, 11, 23)
O'Hare	**Prescott** V2 V97 **Lakewood** (L-10, 11, 23)

MONTGOMERY

Washington	**TGE** V154 MCN V56 AGS V155 V157 **Ironsides** (18, 20, 22)

NASHVILLE

LaGuardia	**Freedom** V140N LOZ V140 MOL V16N GVE V16 ENO V213 **RBV** (L21, 22, 24)
Newark	**Freedom** V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 **Rocky Hill** (L21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta	**PCU** V70 MVC V20 **Tyrone** (L17, 18, 20)
Birmingham	**PCU** V455 MEI V154 V209 BWA drct BHM/LOM (L-17, L-18, L-14)
Dallas	**Walker** V-114N AEX V-114 GGG V-94 V-477E **Forney** (L-17, 13)
Dulles	**PCU** V70 MVC V20 SBV V39 GVE V39E **Brandy** (L-17, 18, 20, 22)
Houston	**TBD** V20S LFT V20 LCH V222N **Monument** (L-17)
Kennedy	**PCU** V70 MVC V20 V213 ENO V44 **Barnegat** (L-17, 18, 20, 22, 24)
Memphis	**PCU** V9E MCB V9 GRW V9E **Independence** (L-14)
Newark	**PCU** V70 MVC V20 V213 ENO V29 V433 **Rocky Hill** (L-17, 18, 20, 22, 24)
Washington	**PCU** V70 MVC V20 SBV V39 GVE V16 **Ironsides** (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	**Sound** POU V487 Brainard (L-25)
Bradley	**Sound** V433 Waterbury (L25)

From Newark only

Albany	**SAX** POU V487 Brainard (L-25)
Atlanta	**SBJ** V3 EMI V39 V140 MOL V143 V222 V35 V20N **OCR** (L24, 22, 20)
Baltimore	**SBJ** V3 V93 (L24)
Boston	**SAX** POU V58 V167 Sterling (L25)
Buffalo	**TVE** V188 V147 V36 **Dale** (L-25)
Cincinnati	**SBJ** V3 V166 V4 V174 V128 **California** (L24–22)
Cleveland	**TVE** V232 **Mentor** (L-24, 23)
Detroit (City)	**TVE** V188 TOH V147 V116 **QG** (L24, 23)
Detroit Metro Area	**TVE** V188 V147 V116 **QG** (L24, 23)
Dulles Int'l	**SBJ** V3 EMI V166 V223 **Sugar Loaf** (L24)
Indianapolis	**TVE** V232 ETG V226 V119 V210 (L24–23)
Jacksonville	**SBJ** V3 V29 SBY V1 V437 SAV V3 **St. Marys** (L24, 22, 20, 18)
Louisville	**SBJ** V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co.	**TVE** V188 TOH V147 V116 **QG** (L24, 23)
Miami	**SBJ** V3 V29 SBY V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Nashville	**SBJ** V3 EMI V39 V140 **Lebanon** (L24, 22, 14)
New Orleans	**SBJ** V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W **Madison** (L24, 22, 20, 14, 18)
Norfolk Metro Area	**SBJ** V3 V29 SBY V1 **CCV** (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 **Warrington** (L24)
Pittsburgh	**TVE** V232 ETG V226 **EWC** (L-24)
Providence	**SAX** POU V58 V130 Lafayette (L25)
Rochester	**SAX** V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	**SAX** V483 (L-25)
Toledo	**TVE** V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	**TVE** V188 TOH V147 V116 **QG** (L24, 23)

From Kennedy only

Atlanta	**Dutch** V308 ENO V213 V20 SPA V20N **OCR** (L24, 22, 20)
Baltimore	**Dutch** V308 ENO V268 (L24)
Boston	**HTO** V139 **HTM** (L25)
Buffalo	**HUO** V126 V36 **Dale** (L-25)
Cleveland	**HUO** V126 V58 IPT V188 JFN V14 **Mentor** (L25, 24, 23)
Detroit	**HUO** V126 V116 **QG** (L25, 24, 23)
Dulles	**HUO** V39 V162 HAR V223 **Sugar Loaf** (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	**Dutch** V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
Louisville	**HUO** V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
Metro Wayne Co.	HUO V126 BFD V172 V188 V103 **Lasalle** (L25, 24, 23)
Miami	**Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Montreal	**Sound** POU V487 (L-25, 26)
New Orleans	**Dutch** V308 OTT V16 V115 V18 V455 V455W **Madison** (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	**Dutch** V139 CCV (L-24, 22)
O'Hare	**HUO** V126 V116 V170 V84 **OBK** (L25, 24, 23)
Philadelphia	**Dutch** V312 CYN V16 V239 **OOD** (L24)
Pittsburgh	**HUO** V126 AVP V58 V226 **EWC** (L-25, 24)
Providence	**HTO** V139 (L25)
Rochester	**HUO** V249 V34 Fishers (L-25)
Syracuse	**HUO** V483 (L25)
Toronto	**HUO** V126 AVP V36 (L-25, 12)
Washington	**Dutch** V308 **North Beach** (L24, 18)
Willow Run	**HUO** V126 AVP V116 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta	**Paterson** V3 EMI V39 V140 MOL V143 V222 V35 V20N **OCR** (L24, 22, 20)
Baltimore	**Paterson** V3 V93 (L24)
Boston	**Sound** V467 MAD V475E V16 **BOS** (L25)
Buffalo	**SAX** V36 **Dale** (L-25, 12)
Cincinnati	**Paterson** V3 V166 V4 V174 V128 **California** (L24-22)
Cleveland	**SAX** TOH V188 JFN V14 **Mentor** (L-24, 23)
Columbus	**SAX** TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	**SAX** TOH V147 V116 **QG** (L24, 23)
Dulles Intl	**Paterson** V3 EMI V166 V223 **Sugar Loaf** (L24)
Indianapolis	**SAX** TOH V226 V119 V210 (L24, 23)
Louisville	**Paterson** V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	**Sound** POU V487 (L-25)
Metro Wayne Co.	**SAX** TOH V147 V116 **QG** (L24, 23)
Nashville	**Paterson** V3 EMI V39 V140 **Lebanon** (L24, 22, 14)
O'Hare	**SAX** TOH V147 V116 V170 V84 **OBK** (L24, 25)
Philadelphia	**Paterson** V3 **Warrington** (L24)
Pittsburgh	**SAX** TOH V226 **EWC** (L24)
Providence	**Sound** V467 V475E V130 **Lafayette** (L24, 25)
Rochester	**SAX** V116 AVP V29 V423 V34 Fishers (L25)
Toronto	**SAX** V36 (L-25, 12)
Washington	**Paterson** V3 ESR V140 Dayton GTN/Rbn **DCA** (L24)
Willow Run	**SAX** TOH V147 V116 **QG** (L24, 23)

NORFOLK METRO AREA

Charlotte	CVI V194 Midland (L-22, 20)
Dulles	Farnham V286 **Brandy** (L22)
Kennedy	CCV V1 **BQT** (L-22, 24)
Jacksonville	CVI VI CHS V437 SAV V3 **St. Marys** (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 **RBV** (L-22, 24)
Newark	CCV V1 SBY V29 V433 **Rocky Hill** (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 **OOD** (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 **Ironsides** (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	**Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	**Crescent** V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 **Brooks** (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E **Shiloh** (L-19)

PHILADELPHIA METRO AREA

Baltimore	**EWT** V166 V93 (L-24)
Boston	MIV 101 rad V139 **HTM** (L24, 25)
Buffalo	**Boyer** V170 SLT ELZ V119 Burns V36 **Dale** (L-25)
Cleveland	**Boyer** V162S HAR V12 AGC V8 BSV V40 **Sharon** (L-24, 23)
Detroit (City)	**Boyer** V162S V12 V37 V103 V42 **QG** (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 **Sugar Leaf** (L24)
Kennedy	**Columbus** V123 **RBV** (L-24)
Jacksonville	**MIV** 205 rad ATR V1 V437 V3 **St. Marys** (L24, 22 20, 19)
LaGuardia	**Columbus** V213 **RBV** (L-24)
Metro Wayne Co.	**Boyer** V162S V12 V37 V103 **Lasalle** (L24, 23)
Miami	**MIV** 205 rad ATR V1 Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark	V433 **Rocky Hill** (L-24)
Norfolk	**MIV** 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	**Boyer** V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	**EWT** V166 V140 Dayton GTN/Rbn **DCA** (L24)
Willow Run	**Boyer** V162S V12 V37 V103 **Lasalle** (L24, 23)

PHOENIX

Albuquerque	**Lake** V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 **Harrington Ranch** (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N **Farley** (L-4, 6)

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 **Sharon** (L-23, 24)
Philadelphia	**CLN** V210 HAR V238 **ESR** (L-24)
Willow Run	V40 V42 V103 **Lasalle** (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 **OCR** (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 **EMI** (L-24)
Boston	**Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L-24, 25)
Charleston W. Va.	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 **Niles** (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
Detroit	V40 V42 V103 **Lasalle** (L24, 23)
Kennedy	V119 V276 **RBV** (L-24)
Indianapolis	V210; or **Kilgore** V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 **Liberty** (L24)
Newark	V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L-24)
Philadelphia	**CLN** V210 HAR V238 **ESR** (L-24)
● St. Louis	**Kilgore** V210 **Staunton** (L23, 21)
Washington	V103 V92 FRR V4 **HRN** (L-24)

From Allegheny Co. only

Chicago	**AGC** V8 FDY V422 CGT V7 **Niles** (L-24, 23)
Kennedy	V12 V106 Reedsville V276 **RBV** (L24)
LaGuardia	V12 V106 SEG V6 V433 **Liberty** (L24)
Newark	V12 V106 V30 **Rocky Hill** (L24)

PROVIDENCE

Kennedy	V167 V16 **RVH** (L25)
LaGuardia	V167 V3 V445 **Stamford** (L25)
Newark	V167 HFD V292 **Budd Lake** (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 **OOD** (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 **GDM** (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)
Kennedy	V147 GEE V252 BGM V270 V34 **RVH** (L25)
LaGuardia	V147 ABE V6 V433 **Liberty** (L-25)
Newark	V147 TOH V226 **Budd Lake** (L25)
Philadelphia	V147 ABE V149 V3 **Warrington** (L25-24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn **DCA** (L25-24)
Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 **Lasalle** (L12, 23)

SAN ANTONIO

Dallas	**Mission** V17 ACT V15 **Desoto** (L-15, 17, 13)
El Paso	**Guadalupe** V222 **Rio** (L-15, 4)
Houston	**Clear Spring** V198 ELA V180 **Arcola** (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	**LIN** V113 RNO V6 MBW V100 **Lakewood** (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	**Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2, 3)
Kennedy	**LIN** V113 RNO V6 MBW V100 OBK V84 LAN V2 SVM V116 ERI V170 V276 **RBV** (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	**TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V246 **Sharon** (L-21. 23)
Columbus	**TOY** V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 **Lakeside** (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 **Justin** (L-21, 6, 13)
Indianapolis	**TOY** V12 Wilbur V11 (L-21, 23)
Kansas City	V4 **Missouri City** (L-21)
Memphis	V9 Kerrville (L-21, 14)
Midway/O'Hare	V9 **JOT** (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	**TOY** V52 EVV V4 **HRN** (L-21, 22)

SYRACUSE

Kennedy	V273 HNK V34 **RVH** (L25)
LaGuardia	V153 V29 V6 V433 **Liberty** (L25)
Newark	V273 **Budd Lake** (L25)
Philadelphia	V29 BGM V149 V3 **Warrington** (L25-24)

TAMPA METRO AREA

Atlanta	**V97W** Scallop V97 **Brooks** (L-19, 18, 20)
Miami	**Gibson** V97 **MIA** (L-19)

TORONTO

Kennedy	V34 **RVH** (L12, 25)
LaGuardia	V36 V147 V6 V433 **Liberty** (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 **JOT** (L-6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 **Lakeside** (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis	V140 FYV V72 V9 **Lemay** (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston	**Swan Point** V268 V139 **HTM** (L24-25)
Chicago	Flint Stone V8 FDY V422 **CGT** (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 **Sharon** (L-24, 23)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 18)
Kennedy	**Swan Point** V123 **RBV** (L24)
LaGuardia	**Swan Point** V123 **RBV** (L24)
Newark	**Swan Point** V433 **Rocky Hill** (L24)
Philadelphia	**Swan Point** V123 **OOD** (L24)
Pittsburgh	Flint Stone V8 **AGC** (L-24)

From Washington only

Atlanta	**CSN** V140 MOL V143 LYH V222 AVL V35 Clemson V20N **OCR** (L-22, 20)
Charleston W. Va.	**CSN** V308 V174 V4 Ivydale (L22)
Charlotte	**BRV** V3 RDU V194 Weddington (L-22, 20)
Dallas	CSN V140 BNA V16 **DAL** (L22, 21, 14, 13)
Greensboro	**CSN** V140 MOL V143 Leaksville (L-22)
Harrisburg	**Ashburn** V8N V223 (L-24)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21,.14)
Miami	BRV V3 V155 V157 V213 V1W ILM Control 115G Sturgeon Tarpon PBI V159E **Oakland** (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	**CSN** V140 **Lebanon** (L22, 21)
New Orleans	**CSN** V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W **Madison** (L22, 20, 14, 18)
Norfolk Metro area	**BRV** V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 **St. Marys** (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	**EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BGT** (L-24)
Jacksonville	**CSN** V39 GVE V155 FAK V3 **St. Marys** (L24)
LaGuardia	**EMI** V166 EWT V157 **RBV** (L-24)
Miami	**CSN** V39 GVE V155 V157 V213 V1W ILM **Control** 1150 Sturgeon Tarpon PBI V159E **Oakland** (L22, 20, 19)
Newark	**EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia	**Braddock** HRN 354 rad V251 V238 **ESR** (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E **Langston** (L6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Section II)

(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

Effective March 3, 1966

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

Effective June 15, 1966

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

Effective April 28, 1966

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence

via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Phillipsburg VORTAC 082 radial Phillipsburg VORTAC 082 radial to Phillipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**--Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transition**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 090 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 082 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, heading 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Oheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

•COLORADO

MEEKER "EKR" VORTAC

June 23, VORTAC will be shutdown until aprxly July 21. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V200	MTU VORTAC to EKR	MTU VORTAC to Tmpry EKR Int via MTU 076 rad	14,500	17,500
		MCA EKR Int E bnd	16,000	
V200	RLG VORTAC to EKR VORTAC	RLG VORTAC to Tmpry EKR Int via RLG VORTAC 260 rad	16,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
EKR VORTAC	Tmpry EKR Int—RLG VORTAC 260 rad & GJT VORTAC 018 rad	16,000
Rangely Int	MTU VORTAC 076 rad & GJT VORTAC 341 rad	13,000
Plateau Int	None	
Crystal Int	GJT VORTAC rad 059—DME 54 mi.	10,000
Palisade Int	GJT VORTAC rad 059—DME 24 mi.	7,600

•FLORIDA

MIAMI "MIA" VORTAC SHUTDOWN

July 6, VOR will be shutdown until aprxly July 8. July 5, DME will be shutdown until July 9. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Sbustitute Routes	MEA	MRA
V51/267	BSY VOR to Miami VORTAC	BSY VOR to Tmpry MIA Int via BSY 319 rad	2,000	17,000
Routes	**Existing Routes**	**Substitute Routes**	**MEA**	**MAA**
V51/267	MIA VORTAC to PHK VORTAC	Tmpry MIA Int to PHK VORTAC via PHK 166 rad	2,000	17,000
V159	MIA VORTAC to PBI VORTAC	Tmpry MIA Int to PBI VORTAC via PHK 166 rad and PBI 219 rad	2,000	17,000
V159E	MIA VORTAC to PBI VORTAC	Tmpry MIA Int to PBI VORTAC via PBI 201 rad	2,000	17,000
V97/157	MIA VORTAC to Cypress Int	Tmpry MIA Int to Tmpry Cypress Int via LBV 135 rad	6,000	17,000
V97/157	Cypress Int to LBV VOR	Tmpry Cypress Int to LBV VOR via LBV 135 rad	3,000	17,000
V157	MIA VORTAC to Harvey Int	Tmpry MIA Int to Tmpry Harvey Int via EYW VORTAC 040 rad	10,000	17,000
V157/16	Harvey Int to EYW VORTAC	Tmpry Harvey Int to EYW VORTAC via EYW VORTAC 040 rad	5,000	17,000
V3	Rancho Int to EYW VORTAC	Tmpry Rancho Int to EYW VORTAC via 025 Brg from MTH RBN to MTH RBN then 205 Brg from MTH RBN and EYW VORTAC 085 rad	2,000	17,000
V35	MIA VORTAC to Gulfstream Int	Tmpry MIA Int to Tmpry Gulfstream Int via BSY 319 and 151 rad	2,000	17,000
V35	MIA VORTAC to FMY VORTAC	None		
V7	MIA VORTAC to Hammock Int	Tmpry MIA Int to Tmpry Hammock Int via FMY 115 rad	6,000	17,000
V7	Hammock Int to Bunker Int	Tmpry Hammock Int to Tmpry Bunker Int via FMY 115 rad	4,000	17,000

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
MIA VORTAC	Tmpry MIA Int—PBI VORTAC 201 rad and BSY VOR 319 rad	2,000
New River Int	PHK VORTAC 166/34 and PBI VORTAC 219 rad	2,000
Oakland Int	PBI VORTAC 201 rad and BSY VOR 346 rad	2,000
Bradley Int	PHK VORTAC 140 rad and PBI VORTAC 181/29	2,000
Golden Beach Int	FLL VOR 137 rad and BSY VOR 021 rad	1,500
Gary Int	HST VOR 355 rad and BSY VOR 262 rad	2,000
Hammock Int	FMY VORTAC 115 rad and PBI VORTAC 222 rad	4,000
Cypress Int	LBV VOR 135 rad and PBI VORTAC 219	3,000
Gulfstream Int	BSY VOR 151 rad and ZBV VORTAC 215 rad	3,000
Cutler Int	BSY VOR 161 rad and HST VOR 086 rad	2,000
Jersey Int	HST VOR 340 rad and W crse MFA ILS	1,500
Harvey Int	HST VOR 298 rad and EYW VORTAC 040 rad	5,000
Rancho Int	HST VOR 324 rad and BSY VOR 262 rad	2,000
Bunker Int	FMY VORTAC 115 rad and LBV VOR 161 rad	2,000
Martin Int	FLL VOR 079 rad and BSY VOR 021 rad	2,000
Sombrero Int	EYW VORTAC 085/36 and 205 Brg fr MTH RBN	2,000
Raton Int	PHK VORTAC 132 rad and PBI VORTAC 181/20	2,000
Kroma (VHF) Int	None	
Eagle Int	None	
Largo Int (VHF)	None	
Goodland Int	None	
Big Horse Int	None	
Play Boy Int	None	
Pine Int	None	
Cape Romano Int	None	
Nelson Int	None	
Alligator Int	None	
Marty Int	None	
Pepper Int	None	
Chester Int	None	
Copeland Int	None	
Dania Int	None	
Innes Int	None	
Levee Int	None	

Jet Routes

Routes	Existing Routes	Substitute Routes	MEA	MAA
J63	EYW VOR to Miami VORTAC	EYW VOR to Tmpry MIA EYW VOR 040 rad and PBI VORTAG 201 rad	FL 180	450
J63/77/79	MIA VORTAC to PBI VORTAC	Tmpry MIA Int to PBI VORTAC via PBI 201 rad	FL 180	450
J81	MIA VORTAC to ORL VORTAC	Tmpry MIA Int to ORL VORTAC via PHK 166 rad to PHK VORTQC thence via ORL 162 rad to ORL	FL 180	450
J75	MIA VORTAC to	Tmpry MIA Int to LAL VORTAC via FMY 115 rad to FMY VOR thence LAL 174 rad to LAL	FL 180	450
J119	MIA VORTAC to PIE VORTAC	Tmpry MIA Int to PIE VORTAC via FMY 115 rad to FMY VOR thence PIE 150 rad to PIE	FL 180	450
J85/89	MIA VORTAC to LAL VORTAC	Tmpry MIA Int to LAL VORTAC via LBV 135 rad to LBV VOR thence LAL 153 rad to LAL	FL 180	450
J41	MIA VORTAC to PIE VORTAC	Tmpry MIA Int to PIE VORTAC via LBV 135 rad to LBV VOR thence PIE 132 rad to PIE	FL 180	450

Existing Reporting Points	Temporary Reporting Points	MRA
MIA VORTAC	Tmpry MIA Int—PBI VORTAC 201 rad and FMY VOR 115 rad	FL 180

TALLAHASSEE "TLH" VORTAC

Due to unusable radials the following substitute route is effective immediately:

Jet Routes

Routes	Existing Routes	Substitute Routes
J2/20/41	MAI VOR to TLH to TLH VOR	Via MAI 106 rad
J2	TLH VOR to JAX	COP 50 mi E of TLH VOR

• MISSOURI

KANSAS CITY "MKC" VORTAC SHUTDOWN

June 27, VORTAC will be shutdown until aprxly July 1 for mod. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V4/210	MHL VOR to MKC VOR	MHL VOR to Tmpry MKC Int via MHL VOR 267 rad	3,000	17,500
V4S	TOP VOR to MKC VOR	None		
V4/10N	TOP VOR to MKC VOR	TOP VOR to Tmpry MKC Int via TOP VOR 071 rad	3,000	17,500
V4N/200 230	TOP VOR to MKC VOR	None		
V10	IRK VOR to MKC VOR	IRK VOR to Tmpry MKC Int via IRK VOR 236 rad	9,500	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V10....	EMP VOR to MKC VOR	EMP VOR to Tmpry MKC Int via EMP VOR 042 rad	7,500	17,500
V13....	LMN VOR to MKC VOR	LMN VOR to Tmpry MKC Int via LMN VOR 193 rad	8,000	17,500
V13E..	MKC VOR to Pleasant Hill Int	None		
V13/71.	BUM VOR to MKC VOR	BUM VOR to Tmpry MKC Int via BUM VOR 348 rad	4,000	17,500
V15/205	STJ VOR to MKC VOR	STJ VOR to Tmpry MKC Int via STJ VOR 151 rad	3,000	17,500
V71....	PWE VOR to MKC VOR	PWE VOR to Tmpry MKC Int via PWE VOR 117 rad	8,000	17,500
V116...	MCM VOR to MKC VOR	MCM VOR to Tmpry MKC Int via MCM VOR 252	8,000	17,500
V205...	BSP VOR to MKC VOR	BSP VOR to Tmpry MKC Int via BSP VOR 305 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
MKC VOR..................	Tmpry MKC Int--TOP VOR 071 rad and STJ VOR 151 rad	3,000
Bonner Springs Int............	EMP VOR 042 rad and TOP VOR 091 rad	5,000
Camden Int................	STJ VOR 151 rad and TOP VOR 057 rad	2,800
Eudora Int................	EMP VOR 042 rad and TOP VOR 116 rad	5,000
Excelsior Int................	MCM VOR 252 rad and BSP VOR 009 rad	5,500
Fleming Int.................	MHL VOR 267 rad and BSP VOR 009 rad	2,400
Kearney Int.................	IRK VOR 236 rad and BSP VOR 336 rad	9,000
Lawson Int..................	IRK VOR 236 rad and BSP VOR 009 rad	5,500
Missouri City Int............	MHL VOR 267 rad and BSP VOR 344 rad	2,400
Mosby Int..................	MCM VOR 252 rad and BSP VOR 344 rad	7,000
New Market Int.............	STJ VOR 170 rad and TOP VOR 047 rad	3,000
Plattsburg Int..............	LMN VOR 193 rad and STJ VOR 124 rad	4,500
Paradise Int................	LMN VOR 193 rad and BSP VOR 326 rad	5,000
Parkville Int...............	EMP VOR 042 rad and BSP VOR 284 rad	7,500
Shawnee Int...............	TOP VOR 091 rad and BUM VOR 339 rad	3,000
Lansing Int...............	STJ VOR 170 rad and TOP VOR 071 rad	1,800
Farley Int...................	STJ VOR 165 rad and TOP VOR 067 rad	2,200
Leeds Int....................	BUM VOR 354 rad and BSP VOR 261 rad	3,500

Jet Routes

Routes	Existing Routes	Substitute Routes	MEA	MAA
J80....	SLN VORTAC to MKC VORTAC	SLN VORTAC to Tmpry MKC Int via SLN VORTAC 071 rad	FL 180	FL 450
J26/87.	MKC VORTAC to IRK VORTAC	Tmpry MKC Int to IRK IRK VORTAC 236 rad	FL 108	FL 450
J24....	MKC VORTAC to STL VORTAC	Tmpry MKC Int to STL VORTAC via HLV VOR 269 rad to HLV VOR thence via HLV VOR 095 rad and STL VORTAC 277 rad to STL VORTAC	FL 180	FL 450
J26/134	ICT VORTAC to MKC VORTAC	ICT VOR to Tmpry MKC Int via ICT VOR 052 rad and EMP VORTAC 234 rad to EMP VORTAC thence via EMP VORTAC 042 rad to Tmpry MKC Int	FL 180	FL 450
J41....	SGF VORTAC to MKC VORTAC	SGF VORTAC to Tmpry MKC Int via SGF VORTAC 326 rad to MKC Int	FL 180	FL 450
J41....	MKC VORTAC to OMA VORTAC	Tmpry MKC Int to OMA VORTAC via OMA VORTAC 147 rad	FL 180	FL 450
J80....	MKC VORTAC to CAP VORTAC	Tmpry MKC Int to CAP VORTAC via MCM VOR 252 rad to MCM VOR thence via MCM VOR 076 rad and CAP VORTAC 261 rad to CAP VORTAC	FL 180	FL 450

Existing Reporting Point	Temporary Reporting Point	MRA
MKC VORTAC.............	Tmpry MKC Int—SGF VORTAC 326 rad and IRK VORTAC 236 rad	FL 180

This supersedes any substitute route structure previously published for this facility.

MONTANA

DRUMMOND "DRU" VOR SHUTDOWN

May 31, VOR shutdown until aprxly June 30. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V2.....	MSO VOR to DRU VOR	MSO VOR to Tmpry DRU Int via MSO VOR 093 rad	15,000	17,500
	DRU VOR to HLN VOR	Tmpry DRU Int to HLN VOR via HLN VOR 253 rad	12,000	17,500

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
DRU VOR....................	Tmpry DRU Int—BTM VOR 313 rad and HLN VOR 253 rad	12,000
Garrison Int..................	HLN VOR 253 rad and BTM VOR 343 rad	12,000

OHIO

BRIGGS "BSV" VORTAC SHUTDOWN

Due to unusable sectors, following substitute route is efctv immediately.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V40,75	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,75,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BSV VORTAC	Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad	3,100

• TENNESSEE

CHATTANOOGA "CHA" VORTAC SHUTDOWN

June 20, VORTAC will be shutdown until aprxly June 22. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V54....	HSV VOR to CHA VORTAC	HSV VOR to Tmpry CHA Int via HSV 080 rad	5,000	17,500
	CHA VORTAC to HRS VOR	Tmpry CHA Int to HRS VOR via HRS 271 rad	6,000	17,500
V54N..	Winchester Int to CHA VORTAC	None		
V5......	BNA VORTAC to CHA VORTAC	BNA VORTAC to Tmpry Int via BNA 131 rad	8,000	17,500
V5/ 51W/ 243	MDU VORTAC to CHA VORTAC	MDU VORTAC to Cartersville Int via MDU 332 rad	3,000	17,500
		Cartersville Int to Tmpry CHA Int via MDU 332 rad	8,000	17,500
V62/ 243	McMinnville Int to CHA VORTAC	None		
V5E.....	CHA VORTAC to Ellijay Int	None		
V51W..	CHA VORTAC to Dayton Int	Tmpry CHA Int to Dayton Int via CSV 189 rad	3,500	17,500
V115...	TYS VORTAC to Geraldine Int	TYS VORTAC to Geraldine Int via TYS 248 rad to Int CSV 202 rad thence via CSV 202 rad and BHM 045 rad to Geraldine Int	6,000	17,500
	CHA VORTAC to TYS VORTAC	Tmpry CHA Int to TYS VORTAC via TYSn226 226 rad	6,000	17,500
	Adler Int to CHA VORTAC	None		
V115E.	Leesburg Int to CHA VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Bridgeport Int...............	HSV VOR 080 rad and CSV VORTAC 210 rad	4,000
Coalmont Int................	BNA VORTAC 131 rad and CSV VORTAC 230 rad	3,500
Dayton Int....................	CSV VORTAC 189 rad and TYS VORTAC 243 rad	3,500
Dalton Int....................	MDU VORTAC 332 rad and HSV VOR 090 rad	5,500
Georgetown Int..............	CSV VORTAC 163 rad and TYS VORTAC 226 rad	4,000
CHA VORTAC..............	Tmpry CHA Int—CSV VORTAC 189 rad and HRS VOR 271 rad and TYS 226 rad	5,500

All other Ints based on CHA VORTAC are unusable.

Jet Routes

Airways	Existing Airways	Substitute Routes
J118...	MEM VORTAC to CHA VORTAC	None
	CHA VORTAC to SPA VORTAC	None

VIRGINIA

PULASKI "PSK" VORTAC SHUTDOWN

Tmpry VOR comsnd. Ident: PSK. Freq: 115.9, Class: H-VORW. during indefinite shutdown of Pulaski VORTAC. For substitute route structure use the follows:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	PSK VOR to Frankford Int.	Via Tmpry PSK VOR 016 rad to Frankford Int.	6,000 PSK-Zenith 8,000 Zenith-Frankford MRA 17,500	

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-16...	PSK VOR to ROA VOR	Via Tmpry PSK VOR 070 rad to midpoint	5,000	17,500
V-136..	PSK VOR to Table Int	Via Tmpry PSK VOR 101 rad to Table Int	5,500	17,500
V-46...	PSK VOR to Francisco Int	Via Tmpry PSK VOR 154 rad to Francisco Int.	6,000	17,500
V-37	PSK VOR to COP...	Via Tmpry PSK VOR 189 rad to COP	7,000	17,500

COP 40 NM from PSK VOR & 86 NM from FML VOR

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37W.	PSK VOR to HKY VOR	Via Tmpry PSK VOR 202 rad and HKY VOR 021 rad	5,500	17,500
V-8	PSK VOR to Sugar Grove Int	Via Tmpry PSK VOR 242 rad to Sugar Grove Int	7,700	17,500

Continued on next page

SUBSTITUTE ROUTE STRUCTURE

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-16N	PSK VOR to BLA VOR	Via Tmpry PSK VOR 258 rad to midpoint	6,600	17,500
V-45	PSK VOR to BLF VOR	Via Tmpry PSK VOR 295 rad and BLF VOR 115 rad	6,000	17,500
V-69	PSK VOR to BKW VOR	Via Tmpry PSK VOR 335 rad to midpoint	6,000	17,500

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-22	TYS VOR to PSK VOR	TYS 064 rad and Tmpry PSK VOR 249 rad	FL180	FL450
	PSK VOR to GVE VOR	Tmpry PSK VOR 068 rad and GVE VOR 252 rad	FL180	FL450
J-48	EMI VOR to PSK VOR	EMI VOR 240 rad and Tmpry PSK VOR 054 rad	FL180	FL450
J-53	AGC VOR to PSK VOR	AGC VOR 195 rad and Tmpry PSK VOR 012 rad	FL180	FL450
	PSK VOR to SPA VOR	Tmpry PSK VOR 209 rad and SPA VOR 026 rad	FL180	FL450

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VOR	Tmpry PSK VOR	5,000
Zenith Int	Tmpry PSK VOR 016 rad and CLD VOR 255 rad and ROA 292 rad	6,000
Table Int	Tmpry PSK VOR 101 rad and ROA VOR 181 rad	5,500
Willis Int	None	
Lindside Int	Tmpry PSK VOR 035 rad and ROA VOR 292 rad.	6,000
Saw Mill Int	Tmpry PSK VOR 189 rad and BLF VOR 148 rad	7,000
Burch Int	None	
Max Meadows Int	Tmpry PSK VOR 242 rad and BLF VOR 157 rad	7,700
Bland Int	Tmpry PSK VOR 258 rad and and BLF VOR 157 rad	6,600
Hicksville Int	BLF VOR 115 rad and BKW VOR 177 rad	6,000

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

ABERDEEN

41st Edition, March 3, 1966

Add obstn 1613' MSL 45°48'46"N, 97°51'17"W. Add UNICOM Pierre arpt 44°23'N, 100°17'W.

•ALBANY

56th Edition, February 3, 1966

Delete Watkins Glen VOR 42°26'04.9"N, 76°47'04.3" W. Delete University RBn 43°07'26"N, 77°37'42"W. Delete Smith Field arpt 42°32'N, 73°24'W. Add obstn 1445' MSL 42°27'29"N, 75°00'20"W. Relocate Keene non-federal RBn from 40°50'45"N, 72°16'20"W to 42°52'16"N, 72°16'21"W. Delete Greenleaf arpt 43°15'N, 77°38'W. Delete UNICOM Webber arpt 42°09'45"N, 73°50'15'W. Add Avon RBn freq 344 ident AVN class MHW 43°00'34"N, 77°46'12"W. Delete Vosenkill arpt 42°17'N, 73°52'W. Delete Trenton RBn 44°03'13"N, 77°37'37"W. Delete Tallent arpt 42°35'06"N, 73°52'34"W. Delete Griffis AFB VOR 43°19'54"N, 75°32'09"W. Change non federal RBn Glenville name to Schenectady ident GVI to SCH 42°51'15"N, 73°55'45"W.

•ALBUQUERQUE

56th Edition, March 3, 1966

Add V291 awy Grants to Gallup (282°M from Grants). Delete Crownpoint VOR symbol and type in western border. Delete Waggoner arpt 35°42'N, 104°04'W. Delete Star Lake arpt 35°54'N, 107°28'W. Delete Sudan arpt 34°03'N, 102°31'W. Delete Barnett arpt 34°02'N, 102°49'W. Delete Rita Blanca arpt 36°02'N, 102°29'W.

•AROOSTOCK

43rd Edition, April 28, 1966

Add Loring AF VOR freq 115.0 ident LIZ class L mag var 22°W, 46°50'10"N, 67°51'24"W.

•AUSTIN

61st Edition, April 28, 1966

Change Hood AAF twr freq from 118.6 to 126.2. Delete Allison Ranch arpt 30°34'N, 101°49'W. Delete Halbert Ranch arpt 30°35'N, 100°43'W. Delete RP Mayer Ranch arpt 30°35'N, 100°48'W. Delete Copeland Ranch arpt 30°43'N, 100°28'W. Delete Mayfield arpt 30°34'N, 100°48'W. Delete Mayfield Station B arpt 30°17'N, 100°14'W. Delete West Texas Boys Ranch arpt 31°20'N, 100°37'W. Delete Burton arpt 30°54'N, 100°48'W.

BEAUMONT

55th Edition, March 31, 1966

Delete Franklinton arpt 30°50'39"N, 90°09'30"W. Add obstn 750' MSL 31°29'12"N, 91°21'42"W. Add obstn 364' MSL 30°07'54"N, 92°48'02"W. Add obstn 462' MSL 30°07'56"N, 91°46'25"W. Delete McDonald arpt 30°59'00"N, 92°36'00"W. Add obstn 331' MSL 30°04'15"N, 90°37'06"W. Add obstn 525' MSL 30°50'41"N, 90°22'35"W. Delete Progress arpt 31°03'N, 90°19'W.

•BELLINGHAM

53rd Edition, May 26, 1966

Add UNICOM Campbell River arpt 49°57'N, 125°16'W.

BIRMINGHAM

61st Edition, April 28, 1966

Add UNICOM Stone Mountain arpt 33°48'40"N, 84°07'10"W. Change De Kalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 798' MSL 33°47'48"N, 87°20'32"W. Change Anniston RBn freq 329 to 278. Add obstn 702' MSL 31°54'55"N, 87°44'W. Delete Prattville RBn 32°28'N, 86°25'W.

•BOISE

42nd Edition, May 26, 1966

Delete FM Eagle code — — — — 43°43'30''N, 116°26'-00''W.

•BOSTON

57th Edition, March 3, 1966

Add obstn 585' MSL 41°49'40''N, 71°22'09''W. Delete Lewiston non-federal RBn 44°02'56''N, 70°17'16''W. Add New Gloucester non-federal RBn freq 266 ident GLU Class MHW 43°59'13''N, 70°19'29''W. Extend efctv time of designation of R–4902 through Oct 31, 1966. Ctl twr decomsnd Devens AAF. Delete Peabody FM 42°30'55''N, 70°56'27''W.

•BURLINGTON

46th Edition, April 28, 1966

Add obstn 430' MSL 45°04'42''N, 74°46'18''W. Delete Trenton RBn 44°03'13''N, 77°37'37''W.

•BUTTE

45th Edition, February 3, 1966

Add awy bcn code ● — — 46°32'29''N, 111°42'39''W. Add awy bcn 46°51'15''N, 111°57'12''W. Add awy bcn code ● ● ● ● 47°02'N, 111°57'W. Add awy bcn code ● — 47°11'06''N, 111°48'00''W. Add awy bcn code ● ● — 46°44'45''N, 113°36'30''W. Add awy bcn code — ● ● 46°32'52''N, 112°38'08''W. Add awy bcn code — — ● 46°19'N, 112°04'W. Add awy bcn code — ● ● ● 46°-04'56''N, 112°08'16''W. Delete ctl twr freq 278 Great Falls Intnl. Add Helena RBn freq 317 ident HLN class SBH 46°36'24''N, 111°56'10''W.

Add Restricted Area R–3202 bounded North by 42°48'-45''N. East 115°32'41''W, South 42°40'00''N & West 115°38'14''W Altitudes Surface to 12,000' MSL. Time sunset to four hours thereafter Mon. thru Fri.

CASPER

51st Edition, March 31, 1966

No hazardous changes.

•CHARLOTTE SECTIONAL CHART

58th Edition, April 28, 1966

Delete Lumberton RBn 34°36'N, 79°04'W. Add 700' floor ctld airspace bounded on S by Asheville 1200' TA on NE by V185E on NW by V16S and on SW by V185. Add obstn 1411' MSL 36°04'12''N, 83°58'19''W.

•CHATTANOOGA

57th Edition, February 3, 1966

Add obstn 820' MSL 35°30'43''N, 88°52'06''W. Change DeKalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 885' MSL 35°55'12''N, 88°46'15''W. Add obstn 3049' MSL 34°45'06''N, 84°42'54''W. Add obstn 1004' MSL 34°51'28''N, 89°14'20''W. Add obstn 1434' MSL 34°16'11''N, 85°59'37''W. Add obstn 717' MSL 36°04'57''N, 87°50'04''W. Delete Oak Ridge arpt 36°02'N, 84°18'W. Add Harris VOR freq 110.4 ident HRS class L-BVOR mag var 0° 34°56'34''N, 83°54'57''W. Delete Van Hooser arpt 35°56'30''N, 85°49'00''W. Add obstn 1411' MSL 36°04'12''N, 83°58'19''W. Delete ctl twr freq 122.6 R NAS Memphis.

•CHEYENNE

54th Edition, June 23, 1966

Add obstn 4536' MSL 41°11'09''N, 103°03'05''W.

•CHICAGO

62nd Edition, May 26, 1966

Delete Carm arpt 43°45'N, 88°01'W. Add Sturgis RBn freq 380 ident IRS class MHW 41°49'N, 85°26'W. Delete ctl twr freq 342 at DuPage Co. Delete Berg arpt 40°33'N, 84°14'W. Add unicom Allen Co arpt 40°42'N, 84°02'W.

•CINCINNATI

61st Edition, February 3, 1966

Add Matton VOR freq 109.4 ident MTO class T/BVOR mag var 3°E 39°28'40''N, 88°17'11''W. Delete Lairds arpt 39°40'25''N, 84°47'45''W. Delete Waco arpt 40°-01'N, 84°13'W. Add ctl zone 5 mi radius Civic Memorial arpt 38°53'N, 90°03'W with 7 mi N & 8 mi E extsns ctl zone efctv 0700 to 2300 hrs daily. Add UNICOM Mettel arpt 39°41'N, 85°08'W. Add UNICOM Robinson arpt 39°00'45''N, 87°38'45''W. Twr comsnd Decatur arpt freq 118.9 39°50'N, 88°52'W. Relocate Terre Haute RBn from 39°30'N, 87°14'W to 39°23'16''N, 87°23'51''W freq 245 change ident HUF to HU class MHW/LOM. Add V313 Cape Girardeau to Centralia (191°M from Centralia), to Decatur to Pontiac. Add Madeira RBn freq 379 ident MDE class MHW 39°13'10''N, 84°21'25''W. Add obstn 1054' MSL 39°01'40''N, 87°45'29''W. Delete Beltzhoover arpt 39°21'N, 84°09'W. Relocate Springfield RBn from 39°46'19''N, 89°44'09''W to 39°46'23''N, 89°45'35''W freq 379 change ident SPI to SP class MHW/LOM. Add obstn 1130' MSL 39°37'23''N, 87°40'24''W. Add UNICOM Salem Muni arpt 38°36'N, 86°08'W. Add UNICOM St. Charles arpt 38°51'N, 90°30'W. Add Columbus RBn non-federal freq 375 ident CLU class MHW 39°05'54''N, 85°58'47''W. Add Salem RBn non-federal freq 400 ident SLO class MHW 38°38'38''N, 88°58'03''W. Delete Lunken RBn non-federal 39°07'N, 84°24'W (efctv 6–30–66). Delete Price arpt 39°32'N, 89°07'W. Add Muncie VOR freq 113.7 ident MIE class L/BVOR mag var 0°40°14'14''N, 85°23'38''W.

•CLEVELAND

62nd Edition, May 26, 1966

Delete Norwalk arpt 41°16'00''N, 82°36'20''W. Delete Circle V arpt 41°05'N, 83°15'W. Delete Bedford (Cessna) arpt 40°05'30''N, 78°31'15''W. Add obstn 1395' MSL 40°50'17''N, 81°18'13''W. Add obstn 1814' MSL 40°39'45''N, 79°20'36''W. Delete UNICOM Butler-Roe arpt 40°51'N, 79°58'W.

•CORPUS CHRISTI

56th Edition, February 3, 1966

Add obstn 550' MSL 27°40'29''N, 98°05'00''W. Add obstn 430' MSL 27°17'30''N, 98°07'16''W. Delete Mission Aero arpt 26°12'30''N, 98°21'45''W. Add obstn 630' MSL 26°39'01''N, 98°27'39''W. Add obstn 280' MSL 26°32'16''N, 97°25'13''W. Add obstn 644' MSL 27°41'-51''N, 98°04'31''W. Correct Reynosa RBn code ● — ● — — ● ● — — — ● to ● — ● ● — ● ● — 26°04'N, 98°17'W.

•DALLAS

62nd Edition, February 3, 1966

Delete Whaley arpt 33°35'N, 97°13'W. Add obstn 1190' MSL 32°26'21''N, 97°19'12''W. Change Dyess RBn class MHW 32°20'10''N, 99°50'04''W. Add UNICOM Olney arpt 33°21'N, 98°49'W. Change obstn elev 1209' to 1484' MSL 33°22'35'N, 98°43'50''W. Delete Zacaweista arpt 33°58'N, 99°14'W. Delete Allison Ranch arpt add Aband symbol 32°00'N, 96°31'W. Delete Valley arpt 33°38'N, 96°22'W. Add obstn 2190' MSL 33°08'45''N, 100°14'10''W. Delete Murphy Ranch arpt 32°35'N, 101°18'W. Delete Llahana arpt 33°25'N, 101°57'W. Add obstn 1767' MSL 32°29'15''N, 98°39'45''W. Change obstn elev 2778' to 2893' MSL 32°17'05''N, 99°44'23''W. Delete Thurber Lake arpt 32°30'N, 98°23'W. Delete Sawyer arpt 33°49'N, 97°46'W. Twr decomsnd Eagle Mtn AAF 32°59'N, 97°30'W.

•DEL RIO

41st Edition, November 11, 1965

Add UNICOM PRESIDIO arpt 29°34'N, 104°22'W. Add obstn 2216' MSL 29°43'27''N, 10048'46''W.

•DENVER

56th Edition, June 23, 1966

No hazardous changes.

DES MOINES

55th Edition, April 28, 1966

Delete Vander Wilt arpt 41°23'N, 92°48'W.

•DETROIT

60th EDITION, January 6, 1966

Delete Madison Heights RBn 42°29'41''N, 83°05'37''W. Twr comsnd Tri-City arpt freq 120.1. Delete Saginaw RBn 43°31'53''N, 84°05'17''W. Delete freq 122.5R & add freq 134.1 R–4203 Selfridge AFB Military Climb Corridor. Add obstn 2450' MSL 41°57'58''N, 78°41'38''W. Delete Orangeville arpt 43°54'N, 80°01'W. Change Olean non-federal RBn hours of opern to 0700–2200. Add obstn 2746' MSL 42°02'28''N, 78°00'23''W.

DOUGLAS

43rd Edition, October 14, 1965

Add Fort Huachuca Ariz ctl zone 5 mi radius Libby AAF arpt 31°35'N, 110°20'W with SE extsn. Delete Vail FM 32°04'N, 110°40'W. Change Douglas VOR freq from 110.0 to 108.8 VOR relocated from 31°30'47.1''N, 109°40'15.7''W to 31°28'21.3''N, 109°36' 05.0'' W.

•DUBUQUE

51st Edition, March 31, 1966

Add control zone 5 mi radius Fairmont arpt with a NW and SE extsns ctl zone efctv by NOTAM's. Add UNICOM Denison arpt 41°59'N, 95°23'W. Change Ames RBn freq 257 to 275 41°59'40''N, 93°37'34''W. Add obstn 1484' MSL 43°37'45''N, 94°30'30''W. Add Charles City RBn freq 375 ident CCY class MHW 43°04'18''N, 92°36'35''W. Add obstn 1748' MSL 42°47'30''N, 96°06'05''W.

•DULUTH

39th Edition, July 22, 1965

Add obstn 1750' MSL 46°26'30''N, 94°22'49''W. Add obstn 1923' MSL 46°28'47''N, 89°55'28''W. Add obstn 1743' MSL 47°18'55''N, 92°12'39''W. Add obstn 1835' MSL 46°57'29''N, 95°06'12''W. Add obstn 1633' MSL 46°40'47''N, 93°56'14''W. Add Ironwood VOR freq 108.8 ident IDW class L/BVOR mag var 3°E 46°31''56''N, 90°07'33''W. Add ctl zone 5 mi radius Gegebic Co arpt 46°31'N, 90°08'W with E & W extsns ctl zone efctv by NOTAMS. Add V430 & V191 awy from Ironwood to Duluth. Add Fergus Falls VOR freq 110.4 ident FFM class T/BVOR mag var 8°E 46°17'23''N, 96°09'23''W. Add obstn 1835' MSL 45°55'39''N, 90°27'42''W. Add UNICOM Eveleth-Virginia arpt 47°26'N, 92°30'W.

ELKO

46th Edition, May 26, 1966

No hazardous changes.

•EL PASO

55th Edition, March 3, 1966

Delete ILS Biggs AFB ctl twr 31°51'N, 106°23'W. Delete Mt Riley Ranch arpt 31°50'N, 107°05'W. Delete Valentine arpt 30°36'N, 104°30'W. Delete Jack Frost Ranch arpt 31°16'N, 105°36'W. Delete Worsham arpt 31°22'N, 103°31'W. Delete Sanderson arpt 30°08'N, 102°26'W. Delete Skevington Ranch arpt 30°20'N, 102°48'W. Delete Henderson Ranch #2 30°38'N, 102°43'W. Delete Coyanosa Flying Service arpt 31°17'N, 103°04'W.

FARGO

44th Edition, March 3, 1966

Add obstn 1718' MSL 46°16'10''N, 97°40'34''W. Add Fergus Falls VOR freq 110.4 ident FFM class T/BVOR mag var 8°E 46°17'23''N, 96°09'23''W.

GLACIER PARK

38th Edition, Octber 14, 1965

Delete Cameron Ranch arpt 49°55'N, 112°22'W. Add V536 airway from Great Falls to Kalispell (Kalispell lctn 48°12'50''N, 114°10'29''W).

GRAND CANYON

42nd Edition, May 26, 1966

No hazardous changes.

GRAND JUNCTION

44th Edition, May 26, 1966

No hazardous changes.

•GREEN BAY

53rd Edition, May 26, 1966

Delete Valley arpt 44°08'N, 88°30'W.

•HAWAIIAN ISLAND

18th Edition, December 9, 1965

Change Maui ctl twr freqs from 118.1 257.8 to 118.7 279.6. Delete ctl twr freq 278 at HILO.

HUNTINGTON

55th Edition, February 3, 1966

Add UNICOM Connellsville arpt 39°58'N, 79°39'W. Delete Thomas arpt 39°35'N, 82°59'W. Delete Wilson arpt 38°55'N, 77°53'W. Add obstn 1375' MSL 38°22'08"N, 81°49'14"W. Add UNICOM Newark Mun arpt 40°01'30"N, 82°27'30"W. Add obstn 1367' MSL 39°38'04"N, 82°22'33"W. Change Lockbourne VOR freq 114.4 to 113.8. Delete Fairmont Mun arpt 39°27'N, 80°10'W. Delete Elsea arpt 39°37'N, 82°57'W. Delete Bedford (Cessna) arpt 40°05'30"N, 78°31'15"W.

•JACKSONVILLE

54th Edition, April 28, 1966

Delete 77 SUNSWEET arpt 31°35'N, 83°34'W. Delete Monticello arpt 30°32'N, 83°53'W. Add obstn 462' MSL 30°41'00"N, 83°19'02"W. Add obstn 1549' MSL 31°08'05"N, 84°06'16"W.

•KANSAS CITY

57th Edition, February 3, 1966

Add obstn 1424' MSL 39°44'42"N, 94°45'06"W. Add obstn 1240' MSL 38°46'11"N, 92°17'38"W. Add obstn 1175' MSL 38°24'47"N, 90°31'23"W. Add obstn 1087' MSL 38°15'38"N, 93°47'47"W. Add obstn 968' MSL 39°34'53"N, 90°47'52"W. Delete McConnell arpt 39°58'N, 92°11'W. Add ctl zone 5 mi radius Civic Memorial arpt 38°53'N, 90°03'W with 7 mi N & 8 mi E extsn ctl zone efctv 0700 to 2300 hrs daily. Add obstn 1300' MSL 39°38'21"N, 93°33'27"W. Add obstn 1252' MSL 38°38'57"N, 95°33'59"W. Add UNICOM Mexico Memorial arpt 39°09'N, 91°49'W. Add UNICOM St. Charles arpt 38°51'N, 90°30'W. Add obstn 1305' MSL 38°57'11"N, 92°45'24"W. Add obstn 1390' MSL 38°40'00"N, 93°15'10"W. Add UNICOM Marshall arpt 39°06'N, 93°12'W. Add obstn 1138' MSL 38°57'21"N, 92°16'14"W. Delete Paola FM 38°36'N, 94°53'W. Delete Eastside arpt and add aband symbol & type 39°47'N, 94°48'W. Add obstn 1240' MSL 38°23'25"N, 94°00'44"W. Add obstn 690' MSL 38°49'49"N, 90°03'46"W. Delete Kansas City RBn 39°10'N, 94°37'W.

KLAMATH FALLS

54th Edition, March 31, 1966

Add UNICOM Florence arpt 43°59'N, 124°06'W.

KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06'N, 119°46'W. Add Castlegar FM code — — — 49°19'N, 117°38'W.

LA GRANDE

44th Edition, February 3, 1966

Delete Long Creek arpt 44°46'N, 119°06'W. Delete ctl twr freq 278 Pendleton Muni.

•LAKE HURON

41st Edition, May 26, 1966

Add obstn 1110' MSL 44°54'46"N, 79°23'16"W.

LAKE SUPERIOR

43rd Edition, March 3, 1966

Add obstn 1110' MSL 46°19'00"N, 85°30'48"W. Add UNICOM Manitowish Waters arpt 46°07'N, 89°53'W. Add obstn 1086' MSL 46°21'18"N, 86°11'03"W. Delete Iron Mountain VOR in southern border also all awys from Iron Mountain to next station.

LAKE OF THE WOODS

38th Edition, August 19, 1965

Add obstn 1243' MSL 48°50'38"N, 95°43'48"W Change Grayham LFR to RBn ident & freq remain same change class BRAZV/P to BHV/P.

•LEWISTON

45th Edition, April 28, 1966

Change Pennfield Ridge RBn freq 379 to 388. Delete Lewiston non-federal RBn 44°02'56"N, 70°17'16"W. Add New Gloucester non-federal RBn freq 266 ident GLU class MHW 43°59'13"N, 70°19'29"W. Add obstn 660' MSL 44°35'25"N, 69°38'20"W. Add obstn 734' MSL 43°55'53"N, 66°06'07"W. Add UNICOM Island Pond State arpt 44°47'25"N, 71°49'45"W.

LINCOLN

54th Edition, March 31, 1966

Correct elev Sieber arpt from 572 to 1572. Correct elev ELY arpt from 720 to 1720. Change obstn elev 2529' MSL to 3030' MSL 40°40'08"N, 97°10'47"W.

•LITTLE ROCK

49th EDITION, January 6, 1966

Change Reeves arpt elev 1050′ to 1505′ 36°03′N, 93°42′W. Delete Christ's 40 Acres arpt 34°31′N, 94°56′W. Restore Muskogee RBn sym 35°41′38″N, 95°22′47″W. Add T-line and type "CAUTION" 35°33′00″N, 95°09′53″W. Add obstn 1490′ MSL 34°30′13″N, 93°04′46″W. Delete Schumacher arpt 35°41′38″N, 95°22′47″W. Add obstn 1161′ MSL 35°28′30″N, 94°48′05″W. Add obstn 2310′ MSL 35°29′39″N, 92°53′58″W. Delete ctl twr freq 122.6 R NAS Memphis.

•LOS ANGELES

61st Edition, March 3, 1966

Delete ctl twr freq 257.8 at Meadows. Add obstn 400′ MSL UC 33°44′17″N, 118°23′48″W. Change Hawthorne ctl twr freq 257.8 to 385.5. Add Van Nuys VOR freq 113.1 ident VNY class L–VOR Mag var 15°E 34°13′25″N, 118°29′27″W. Relocate Ontario VOR from 33°56′11″N, 117°36′11″W to 33°55′06″N, 117°31′44″W adjust arwys and change freq 117.0 to 112.2. Change Palmdale AF Plant No 42 ctl twr freq 120.5 to 120.4. Delete ctl twr freq 126.2 Edwards AFB. Delete ctl twr freq 142.74 Los Alamitos NAS. Delete Buttonwillow arpt add Aband symbol 35°25′N, 119°28′W. Add UNICOM Morrow arpt 34°05′N, 117°22′W.

•MIAMI

53rd Edition, March 31, 1966

Add obstn 650′ MSL 28°00′45″N, 81°45′45″W. Change Marathon RBn freq 360 to 260. Delete Keats arpt 27°34′38″N, 80°50′32″W. Delete Dressel arpt 27°15′58″N, 81°19′11″W. Add obstn 328′ MSL 26°22′45″N, 81°22′03″W. Add obstn 248′ MSL 26°56′27″N, 81°18′38″ W. Add obstn 413′ MSL 25°26′07″N, 80°19′51″W. Delete Hobbs arpt 26°47′N, 82°02′W. Delete Bob Paul arpt 26°41′N, 81°27′W. Add 700′ Transition Area 5 mi radius of Lakeland arpt 27°59′N, 82°01′W and 5 mi NW 8 mi SE of Lakeland VOR bearing 233°T to 12 mi SW of VOR. Add obstn 297′ MSL 25°44′58″N, 80°12′07″W.

MILES CITY

45th Edition, April 28, 1966

No hazardous changes.

•MILWAUKEE

60th Edition, May 26, 1966

Delete ctl twr freq 342 DuPage Co. Delete ctl twr freq 396 Kellog. Delete Carm arpt 43°46′N, 88°01′W. Twr comsnd Rock County arpt freqs 121.1, 122.7. Add obstn 851′ MSL 43°41′49″N, 83°58′48″W.

MINOT

43rd Edition, March 3, 1966

Add obstn 1830′ MSL 48°43′12″N 101°12′30″W. Add obstn 1310′ MSL 48°25′30″N, 97°26′45″W.

•MOBILE

58th Edition, February 3, 1966

Revise Restricted Area Tab back of chart deleting R–2912A & R–2912B information & add R–2912 Panama City Fla alt 700′ to 5000′ (vertical airspace not to exceed 2000 consecutive ft at one time) Time 0600 to 1800 Mon thru Fri ctling agency FAA Jacksonville ARTC Center or area FSS using agency Comdr Tyndall AFB Fla. Change Shell AHP twr freq 139.08 to 139.20. Change Lowe AHP twr freq 247.0 to 237.3. Add obstn 702′ MSL 31°54′55″N, 87°44′00″W. Add obstn 693′ MSL 31°36′45″N, 87°41′10″W. Add obstn 520 MSL 30°55′50″N, 88°08′41″W. Add obstn 719′ MSL 31°25′30″N, 87°06′29″W. Delete Pittman arpt 30°56′00″N, 87°05′30″W. Add obstn 614′ MSL 31°37′04″N, 84°10′50″W. Add obstn 213′ MSL 30°15′58″N, 85°41′56″W. Add obstn 645′ MSL 30°46′30″N, 86°35′48″W. Add obstn 730′ MSL 31°31′36″N, 86°53′05″W. Add obstn 512′ UC MSL 30°30′07″N, 86°26′42″W. Add obstn 546′ MSL 31°41′46″N, 88°38′32″W. Add obstn 723′ MSL 31°30′13″N, 85°57′17″W. Add obstn 1549′ MSL 31°08′05″N, 84°06′16″W. Add obstn 984′ MSL 31°52′00″N, 89°41′35″ W. Add obstn 464′ MSL 31°17′14″N, 84°24′47″W.

MT. SHASTA

55th Edition, May 26,1966

No hazardous changes.

•MT. WHITNEY

57th Edition, June 23, 1966

No hazardous changes.

•NASHVILLE

56th Edition, January 6, 1966

Delete Oak Ridge arpt 36°02′N, 84°18′W. Delete TVA Elkhorn arpt 36°21′N, 88°10′W. Add V313 awy Malden to Cape Girardeau to Centralia. Add V313E awy Cape Girardeau to Marion to Centralia Realign V190 awy from Farmington to Evansville via Marion. Add obstn 885′ MSL 35°55′12″N, 88°46′15″W. Delete Streeval arpt 37°09′N, 85°12′W. Add obstn 717′ MSL 36°04′57″ N, 87°50′04″W. Delete Van Hooser arpt 35°56′30″N, 85°49′00″W. Add obstn 934′ MSL 36°44′46″N, 88°39′56″W. Add obstn 525′ MSL 36°49′25″N, 89°35′45″W. Add obstn 984′ MSL 37°41′44″N, 89°15′51″W. Add obstn 991′ MSL 37°47′29″N, 88°53′35″W. Add obstn 901′ MSL 37°18′46″N, 86°56′23″W. Add obstn 1411′ MSL 36°04′12″N, 83°58′19″W. Delete Cumberland arpt 36°12′N, 86°48′W. Add obstn 680′ MSL 37°22′30″N, 87°37′10″W. Change obstn elev 1020 to 1449′ MSL 37°51′56″N, 87°34′04″W.

•NEW ORLEANS

59th Edition, March 31, 1966

Add obstn 364′ MSL 30°07′54″N, 92°48′02″W. Add obstn 462 MSL 30°07′56″N, 91°46′25″W. Add obstn 370′ MSL 29°15′20″N, 89°21′24″W. Add obstn 501′ MSL 29°16′26″N, 90°38′48″W. Change freq 109.4 to 113.5 Grand Isle VOR 29°10′N, 90°06′W.

•NEW YORK

64th Edition, March 31, 1966

Add obstn 1062' MSL 40°37'13"N, 75°17'37"W. Add UNICOM Alexandria Field arpt 40°35'15"N, 75°01'00"W. Delete Old Star arpt 40°11'00"N, 74°52'45"W. Change Lancaster Control Tower freq 257.8 to 263.0. Change Westchester Co. ctl twr freq 350.2 to 241.0. Twr comsnd NAS Lakehurst East Field freq 142.74 and 340.2 40°01'30"N, 74°19'15"W. Change Olmstead AFB twr hours of opern to 0700-2300. Delete ctl twr freq 223 Allentown Bethlehem Easton. Add obstn 378' MSL 40°56'10"N, 72°39'12"W. Delete Radle arpt 40°24'48"N, 77°16'15"W. Delete Caka arpt 40°33'N, 74°54'W. Delete Pond Hollow Farm arpt 40°48'55"N, 75°08'00"W. Add ctl twr freq 241.0 NAS Lakehurst-Eastfield. Delete Mountain Bay arpt 41°23'00"N, 75°14'00"W.

•NORFOLK

58th Edition, March 3, 1966

Delete New Bern RBn 35°04'N, 77°02'W. Add obstn 365' MSL 35°41'50"N, 77°38'24"W. Add UNICOM Suffolk Mun arpt 36°40'N, 76°36'W. Delete ctl twr freq 317 Patrick Henry arpt 37°08'N, 76°30'W efctv 6-30-66. Add ctl twr freq 120.5 CGAS Elizabeth City.

•OKLAHOMA CITY

59th Edition, April 28, 1966

Add obstn 2770' MSL 35°25'25"N, 99°50'30"W. Delete aband apt symbol & type 34°14'N, 98°44'W. Add obstn 1357' MSL 34°23'28"N, 97°59'36"W. Delete Cowan arpt 34°29'N, 101°49'W. Delete Todd arpt 34°38'N, 101°57'W. Delete Savage arpt 34°20'N, 101°31'W. Delete Tri-State arpt 35°08'N, 101°48'W. Delete ctl twr freq 119.2 Clinton Sherman AFB 35°20'N, 99°12'W.

•ORLANDO

55th Edition, April 28, 1966

Add obstn 375' MSL 28°36'50"N, 82°12'56"W. Add obstn 435' MSL 28°48'40"N, 81°52'35"W. Delete Bruce arpt 28°43'00"N, 81°04'13"W.

•PHOENIX

54th EDITION, January 6, 1966

Delete Grapevine arpt 33°38'N, 111°03'W. Delete Duncan arpt 32°42'N, 109°08'W. Delete Whitewater Mesa arpt 33°22'N, 108°52'W. Delete Apache Creek arpt 33°51'N, 108°37'W. Change Me-Own arpt elev 7200' to 7554' MSL 33°14'N, 108°02'W.

POCATELLO

51st Edition, March 31, 1966

No hazardous changes.

PORTLAND

54th Edition, February 3, 1966

Correct Portland RBn ident PO to PDX 45°38'30"N, 122°35'55"W. Delete awy bcn site No. 4 code ● ● ● ● 45°41'30"N, 121°49'05"W. Delete awy bcn site No. 6B code — ● — 45°41'00"N, 121°21'30"W.

•PRESCOTT

45th Edition, March 31, 1966

Delete Crownpoint VOR 35°52'54"N, 108°15'30"W. Delete Gallup RBn 35°30'25"N, 108°48'06"W. Add Grand Canyon 1200' Transition area bounded by a line beginning at 36°00'N, 112°27'W to 36°05'N, 112°00'W to 35°42'N, 112°00'W to 35°42'N, 112°07'W to 35°38'N, 112°27'W to point of beginning.

•RAPID CITY

44th Edition, June 23, 1966

No hazardous changes.

•RENO

46th Edition, June 23,1966

No hazardous changes.

•ROSWELL

55th Edition, June 23, 1966

No hazardous changes.

•SACRAMENTO

56th Edition, June 23, 1966

No hazardous changes.

ST. LOUIS LOCAL CHART

34th Edition, February 3, 1966

Change mag var note to read 5°E.

•SALINA

54th Edition, March 31, 1966

Delete Downs arpt 39°30'N, 98°33'W. Add obstn 1775' MSL 38°38'16"N, 96°57'57"W. Add obstn 2338' MSL 39°45'52"N, 99°18'15"W.

•SALT LAKE CITY

53rd Edition, May 26, 1966

No hazardous changes.

•SAN ANTONIO

58th Edition, June 23, 1966

No hazardous changes.

•SAN DIEGO

59th Edition, March 3, 1966

Delete National City arpt 32°39'N, 117°06'W. Add obstn 400' MSL UC 33°44'17"N, 118°23'48"W. Delete ctl twr freq 142.74 at MCAS Yuma. Change Hawthorne ctl twr freq 257.8 to 385.5. Add obstn 760' MSL 33°51'29"N, 116°29'39"W. Delete UNICOM Heron arpt 33°36'N, 114°35'W. Relocate Ontario VOR from 33°56'11"N, 117°36'11"W to 33°55'06"N, 117°31'44"W adjust awys & change freq 117.0 to 112.2. Change Orange Co ctl twr freq 257.8 to 379.9. Delete ctl twr freq 382 MCAF Santa Ana Delete ctl twr freq 142.74 Los Alamitos NAS. Add UNICOM Morrow arpt 34°05'N, 117°22'W.

•SAN FRANCISCO

59th Edition, June 23, 1966

No hazardous changes.

SAVANNAH

59th Edition, March 3, 1966

Change Shaw RBn ident and code SW ● ● ● ● — — to SSC ● ● ● ● ● ● — ● — ● 33°55'N, 80°31'W. Restore 700' floors to V154 and V185 between V70 and V157. Delete Dorchester Co arpt 33°11'N, 80°33'W. Add UNICOM Covington arpt 33°38'N, 83°51'W. Delete Church Branch arpt 33°31'N, 80°11'W.

•SEATTLE

59th Edition, June 23, 1966

No hazardous changes.

•SHREVEPORT

51st Edition, June 23, 1966

No hazardous changes.

SIOUX CITY

43rd Edition, May 26, 1966

No hazardous changes.

•SPOKANE

53rd Edition, June 23, 1966

No hazardous changes.

•TRINIDAD

43rd Edition, March 3, 1966

Add obstn 4474' MSL 37°33'24"N, 102°26'19"W. Delete Rita Blanca arpt 36°02'N, 102°29'W.

•TULSA

57th Edition, April 28, 1966

Add obstn 1400' MSL 37°58'30"N, 92°53'36"W. Delete rotating bcn Bismarck arpt 37°45'N, 90°37'W. Add obstn 1835' MSL 36°10'02"N, 94°04'34"W.

•TWIN CITIES

52nd Edition, April 28, 1966

Add obstn 1835' MSL 45°55'39"N, 90°27'42"W. Delete ctl twr freq 257 at Crystal. Change Minneapolis RBn ident MSP to MS class SABH to H/SAB/LOM 44°51'-28.1"N, 93°08'54.5"W to 44°49'33.1N, 93°05'27.6"W. Add Marshfield RBn freq 391 ident MFI class MHW 44°38'-28"N, 90°11'14"W.

•WASHINGTON

63rd Edition, March 31, 1966

Change Andrews AFB/NAF ctl twr freq 126.2 to 118.4. Change Lancaster arpt ctl twr freq 257.8 to 263.0. Delete Du Pont arpt 38°38'N, 75°38'W. Delete ctl twr freq 121.3 at MCAS Quantico. Twr comsnd NAS Lakehurst-East Field freq 142.74 and 340.2 40°-01'30"N, 74°19'15"W. Change ctl twr freq 119.7 to 120.1 Dulles Intna. Add ctl twr freq 241.0 NAS Lakehurst-EastField. Delete Rutherford arpt 39°20'N, 76°45'W.

•WICHITA

56th Edition, June 23, 1966

No hazardous changes.

•WILLISTON

39th Edition, July 22, 1965

Add obstn 2520' MSL 48°52'08"N, 104°03'40"W. Add obstn 2640' MSL 48°09'40"N, 103°29'39"W.

•WINSTON-SALEM

57th Edition, March 31, 1966

Delete Griffins arpt 36°11'N, 79°53'W. Change Evington RBn freq 393 to 385. Change obstn elev 2049' MSL to 2420' MSL 36°32'N, 82°35'W. Add UNICOM Roanoke Mun 37°19'26"N, 79°58'33"W. Add obstn 1411' MSL 36°04'12"N, 83°58'19"W.

YELLOWSTONE PARK

43rd Edition, March 3, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

●GADSDEN VORTAC: DME unusable beyond 20 nmi 140–195°.

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000′ MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000′ MSL 190–290°: below 7000′ MSL 320–345° and 005–035°; below 8000′ MSL 035–060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500′ MSL; 175–240°, 090–145° below 10,500′ MSL 040–090°. Below 14,000′ MSL 360–040°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000′ MSL beyond 40 nmi from 195–230°.

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000′ MSL 152–170° and 200–210° and beyond 6 nmi below 7000′ MSL 078–125°.

PRESCOTT VORTAC: VORTAC unusable beyond 40 nmi below 11,000′ MSL 145–155° and 175–200°; below 17,000′ MSL 200–225°; below 12,000′ MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 145–190°; below 14,000′ 190–255°; below 10,500′ MSL 350–145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL from 320–045°; below 16,500′ MSL 045–065°; below 15,000′ MSL 065–080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL 280–300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346–311° beyond 20 nmi below 3,500′ MSL; 312–345° beyond 15 nmi below 5,500′ MSL and beyond 30 nmi below 7,500′ MSL. MSL.

CALIFORNIA

AVENAL VORTAC: DME unusable beyond 40 nmi below 3000′ MSL 320–065° below 4000′ MSL, 065–095° below 4500′ MSL, 095–125° below 8500′ MSL, 125–170° below 7500′ MSL, 170–198° below 7000′ MSL, 195–230° below 8000′ MSL, 230–305° below 8000′ MSL.

BAKERSFIELD VORTAC: VOR portion 121° rad V165 to Arvin Int unusable below 4000′.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000′ MSL 324–018° below 9000′ MSL 189–217°, below 10,000′ MSL 175–189°, below 15,000′ MSL 277–324°.

BIG SUR VORTAC: DME unusable beyond 40 nmi below 8000′ MSL 085–120° below 7000′ MSL 120–130° below 6000′ MSL 290–320° and below 9000′ MSL 320–085°.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000′ and below 280–290° and 14,000′ and below 290–350°

FORTUNA VORTAC: DME unusable below 9500′ MSL 050–070° and below 5000′ MSL 150–200° beyond 40 nmi.

FRESNO VORTAC: DME unusable below 4000′ MSL 200–250°.

GLENDALE RBN: H facil unusable beyond 2 mi from 320–065° and from 130–235°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 265–290° and 15,000′ MSL 290–310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 265–310° below 10,500′ MSL 350–040°; below 5500′ MSL 125–155°; below 10,500′ MSL 155–170° below 14,500′ MSL 170–219°; below 31,000′ MSL 219–250°; below 25,000′ MSL 250–265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL from 135–180°, below 7000′ MSL from 268–290°. V-201 011° rad beyond 20 nmi below 9000′ MSL. DME unusable beyond 40 nmi below 3500′ MSL from 180–210°.

NAPA VORTAC: DME unusable beyond 40 nmi below 7500′ from 280–045°.

NEEDLES VORTAC: VORTAC unusable below 11,500′ MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: DME unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005–060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unustble beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265–280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115–125°, beyond 15 mi from 125–135°, beyond 15 mi from 225–235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

● **TALLAHASSEE VOR**: VOR unusable above 17,500′ MSL on 287 rad and beyond 50 mi on 090 rad.

GEORGIA

AUGUSTA VORTAC: VOR unusable 357–002°. Use Greenwood VOR 180° radial for V-185 between Augusta VORTAC and Greenwood VOR, MEA 2,300′ MSL.

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°. VOR portion unusable within an arc from 130–140° 6 to 8 NM from station due to roughness.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 135–156°, 285–315° and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115-210° below 2500′ MSL.

IOWA

WATERLOO VORTAC: DME unusable beyond 15 nmi 355–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

●WESTMINSTER VOR: VOR unusable on 288° rad beyond 34 mi above 18,000′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable in the following areas: 010–045° beyond 65 mi 45,000′ MSL, 000–026° beyond 10 mi below 18,000′ MSL, 026–045° beyond 22 mi below 3500′ MSL, 026–045° beyond 26 mi below 4500′ MSL, 026–045° beyond 28 mi below 5500′ MSL, 026–045° beyond 32 mi below 7500′ MSL, 045–360° beyond 26 mi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL

MICHIGAN

●ALPENA VORTAC: VOR unusable 360° clockwise to 065°. DME unusable 250° clockwise to 280° below 3500′ MSL beyond 30 nmi.

ESCANABA VOR: VOR unusable from 140–170°, 190–235°, 315–335° beyond 10 NM airway V7 Escanaba 216° rad change over point 10 NM SW Escanaba VOR.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–095° beyond 15 nmi below 6000′ MSL. 090–103° beyond 30 nmi below 4000′ 104–190° beyond 25 nmi below 3000′; 190–200° below 3000′; 200–330° beyond 25 nmi below 3000′; 331–036° beyond 25 nmi below 3500′.

MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335–350° beyond 30 mi below 2,900′ MSL.

SAWYER VOR: VOR unusable 090–110° and 270–310°.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′. TACAN unusable below 14,500′ 265–275° within 40 nmi.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000′ MSL within 30 mi; 242–255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185–265° beyond 20 mi below 3,000′ MSL; 265–185° beyond 20 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3,500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252–260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000′ MSL.

BUTTE VORTAC: VORTAC unusable following areas: 005–120° beyond 20 nmi below 10,000′ MSL; and 120–325° beyond 20 nmi below 11,000 MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250–030° beyond 25 mi below 10,500′ MSL, 030–250° beyond 25 mi below 12,000′ MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235–245° beyond 10 mi below 6,800′ MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360–065° beyond 20 mi below 10,000′ MSL; 065–090° beyond 25 mi below 11,000′ MSL; 110–120° beyond 20 mi below 16,000′ MSL; 120–240° beyond 20 mi below 10,000′ MSL; 240–320° beyond 25 mi below 10,000′ MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000′ MSL.

●MALMSTROM VOR: VOR unusable 250–280° beyond 15 nmi below 7000′ MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345–060° beyond 15 mi; 060–095° beyond 31 mi below 12,000′ MSL; 095–165° beyond 20 mi below 10,000′ MSL; 165–270° beyond 20 mi below 12,000′ MSL; 285–315° beyond 20 mi below 12,000′ MSL; 315–345° beyond 20 mi; VOR below 11,000′ MSL DME below 14,000′ MSL. Possible momentary VOR flag activity on V-2 nine miles E of MSO VORTAC. Vertify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360–040° beyond 30 mi below 14,500′ MSL; 040–055° beyond 30 mi below 12,000′ MSL; 120–160° beyond 30 mi below 14,500′ MSL; 215–230° beyond 20 mi below 14,500′ MSL; 230–285° beyond 35 mi below 14,500′ MSL; 285–360° beyond 30 mi below 13,500′ MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36–55 mi below 3,600′ MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285°.

BEATTY VORTAC: VOR restricted below 8000′ beyond 27 nmi, 060–360°; below 10,000′ beyond 10 nmi, 360–060°.

COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced comerage. DME unusable beyond 15 nmi below 14,000′ MSL 065–075°; below 17,000′ MSL 150–235°; below 16,000′ MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 nmi 260–290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240–320°; below 14,000′ MSL 170–220° and 320–340°: below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010–120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,500′ MSL from 200° to 255°, below 14,500′ MSL from 255° to 270°, below 16,000′ MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000′ MSL from 055 to 100°; 14,000′ MSL from 100 to 110°; 17,000′ MSL from 110 to 135°; 16,000′ MSL from 285 to 340°.

RENO RBN: H facility unusable 170–270° beyond 20 nmi, 270°–300° beyond 30 nmi and 300–010° beyond 23 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000′. DME unusable below 14,500′ beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500′ MSL beyond 40 nmi from 020–075° and 220–235°.

SPARKS RBN: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH VORTAC: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000′ MSL 005–030°: below 22,500, 185–210°: below 15,000, 335–350°; and below 12,000′, 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000′.

LEBANON VOR : VOR unusable 110–115° beyond 35 mi below 6,900′ MSL.

NEW JERSEY

ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1500′ MSL. DME unusable for apchs.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000′ MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000′ MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000′ MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500′ MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000′ MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000′ MSL; 001–025° beyond 20 nmi below 13,300′ MSL; 150–175° beyond 30 nmi below 10,500′ MSL; 176–210° beyond 20 nmi below 10,500′ MSL; 240–265° beyond 35 nmi below 10,700′ MSL; unusable 001–010°.

SANTA FE VORTAC: VOR unusable 015–030° beyond 30 mi at MEA.

NEW YORK

ALBANY VORTAC: VOR unusable 115–135° beyond 10 mi.

BINGHAMPTON RBN: Erratic ADF action 4–13 mi SSE of facility at 3,500′ MSL.

CANARSIE VOR: VOR unusable 060–095° beyond 15 mi below 4,000′ MSL.

DEER PARK VORTAC: VOR unusable following areas: 070–180° beyond 35 mi below 1,700′ MSL; 180–240° beyond 30 mi below 1,700′ MSL; 240–350° beyond 25

mi below 2,200′ MSL; and 350–040° beyond 30 mi below 2,200′ MSL.

DUNKIRK VOR: VOR unusable 120–180° beyond 22 mi below 4,000′ MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500′ MSL in following areas: 115–140° beyond 35 mi; 140–160° beyond 30 mi; 160–180° beyond 35 mi; 190–210° beyond 30 mi; and 210–215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305–315° beyond 35 mi below 7,000′; 315–350° beyond 30 mi below 8,000′.

HAMPTON VORTAC: DME unusable following areas: 280–325° beyond 35 mi below 1,700′ MSL; and 325–355° beyond 30 mi below 2,000′ MSL.

HUGUENOT VORTAC: VOR unusable 210–230° beyond 20 mi below 6,500′ MSL.

ITHACA VOR: VOR unusable 360–150° beyond 25 mi below 3,800′ MSL.

KENNEDY VORTAC: VOR unusable below 1,500′ MSL in the following areas: 015–030° beyond 30 mi; 030–045° beyond 26 mi; 060–075° beyond 24 mi; 075–100° beyond 30 mi; 100–150° beyond 28 mi; 150–165° beyond 30 mi; 165–215° beyond 30 mi; 215–270° beyond 26 mi; and 350–015° beyond 35 mi. VOR unusable below 2,000′ MSL in following areas: 045–060° beyond 24 mi; 270–340° beyond 26 mi; and 340–350° beyond 30 mi.

KINGSTON VOR: VOR unusable 045–050° beyond 35 mi below 4,300′ MSL and 070–140° beyond 30 mi below 3,400′ MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015–025° beyond 20 mi below 1,900′ MSL; 025–045° beyond 35 mi below 2,700′ MSL; 065–075° beyond 30 mi below 1,700′ MSL; 075–135° beyond 25 mi below 1,700′ MSL; 135–145° beyond 35 mi below 1,700′ MSL; 165–205° beyond 15 mi below 1,700′ MSL; 205–215° beyond 35 mi below 1,700′ MSL; 215–220° beyond 30 mi below 1,700′ MSL; 220–230° beyond 25 mi below 1,700′ MSL; 230–240° beyond 30 mi below 1,700′ MSL; 240–250° beyond 20 mi below 1,700′ MSL; 250–260° beyond 10 mi below 2,500′ MSL; 260–270° beyond 20 mi below 1,700′ MSL; 270–285° beyond 25 mi below 1,800′ MSL; 285–295° beyond 30 mi below 2,700′ MSL; 295–305° beyond 35 mi below 2,700′ MSL; 315–325° beyond 35 mi below 3,200′ MSL; 325–005° beyond 25 mi below 2,700′ MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260–270° beyond 35 mi below 6,000′ MSL.

ROCHESTER VOR: VOR unusable 045–065° beyond 12 mi.

SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360–015° below 5000′ MSL; 015–025° below 4500′ MSL; 025–100° below 5000′ MSL; 100–165° below 9000′ MSL; 165–180° below 7000′ MSL; 180–190° below 6500′ MSL; 190–200° below 7000′ MSL; 200–220° below 6000′ MSL; 220–240° below 5000′ MSL; 240–295° below 5500′ MSL; 295–305° below 7000′ MSL; 305–360° below 4500′ MSL.

NORTH CAROLINA

CHARLOTTE VORTAC: VOR unusable 360–055° except 005° rad unusable beyond 20 nmi.

ELIZABETH CITY VOR: VOR unusable 026–042° and 085–100° all altitudes; 276–312° below 5000′ MSL. Use Franklin VOR 130° radial for V-290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500′.

GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290–320° and 100–190°.

GREENSBORO VORTAC: VOR unusable 350–010° beyond 30 mi.

NORTH DAKOTA

DICKINSON VORTAC: VOR unusable 090–120° between FL 180 and FL 310 beyond 40 mi. GTF Center RADAR service available.

RED RIVER VOR: VOR unusable 228–256° and 265–280°.

OHIO

AKRON VORTAC: VOR unusable 030–080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500′ MSL.

BELLAIRE VOR: VOR unusable 325–345° below 6000′ MSL.

BRIGGS VORTAC: VOR unusable 330–010°, 120-145° and 305–325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033–070°, 085–135°, 155–225°, 250–280° and 295–023°.

STRONGSVILLE VOR: VOR unusable 080–200° beyond 35 mi.

OREGON

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000′ MSL 020–085°; 18,000′ MSL 085–120°; 12,000′ MSL 180–340°; 14,000′ MSL 340–020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350-150°; 600′ MSL 150–170°; 6000′ MSL 320–350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000′.

REDMOND VORTAC: VORTAC unusable below 11,000′ MSL 190–210′; below 13,000′ MSL 210-240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215-285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020–060° beyond 26 mi below 3,500′ MSL.

ALTOONA VOR: VOR unusable in the following areas: 070-100° beyond 18 mi below 3,500′ MSL; 100–160° beyond 30 mi below 3,500′ MSL; 200–310° beyond 30 mi below 4,500′ MSL; 310–350° beyond 15 mi all altitudes; 350–010° beyond 30 mi below 4,000′ MSL.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VOR: VOR unusable 070–085° beyond 10 mi at MOCA.

CLARION VOR: VOR unusable 215–223°.

HARRISBURG VORTAC: VOR unusable in following areas: 105–140° beyond 26 mi; 140–165° beyond 30 mi; and 195–230° beyond 28 mi. DME unusable 325–360° beyond 30 mi; and 360–025° beyond 35 mi.

IMPERIAL VORTAC: VOR unusable 150–170° below 8,000′ MSL and 345–360° below 14,500′ MSL.

LANCASTER VOR: VOR unusable in following areas: 190–220° beyond 25 mi below 3,000′ MSL; 220–250° beyond 25 mi below 4,000′ MSL; 320–340° beyond 15 mi below 5,000′ MSL; 320–340° beyond 25 mi below 6,000′ MSL.

LATROBE VOR: VOR unusable beyond 20 mi.

SELINSGROVE VORTAC: VOR unusable in following areas: 105–115° beyond 26 mi below 3,000′ MSL; 210–230° beyond 35 mi below 2,500′ MSL; and 250–285° beyond 26 mi below 3,400′ MSL. DME unusable 100–115° beyond 30 mi below 3,000′ MSL; 115–170° beyond 35 mi below 2,900′ MSL; 190–300° beyond 35 mi below 3,500′ MSL.

YARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250–265° beyond 17 mi; 265–280° beyond 10 mi; and 280–290° beyond 17 mi. DME unusable 225–275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

PROVIDENCE VORTAC: VOR and DME unusable 220–310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

ALLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

FLORENCE VORTAC: VOR unusable 360–010° beyond 20 mi below 5000′ MSL.

MYRTLE BEACH VOR: VOR unusable 220–245° beyond 15 nmi below 2500′ MSL; 350–015° beyond 10 nmi below 5000′ MSL.

TEXAS

AMARILLO VORTAC: DME unusable 110-235° beyond 15 NM below 7000′ MSL.

AUSTIN VORTAC: VOR unusable 260–320° beyond 35 mi below 3,500′ MSL.

EL PASO VORTAC: DME unusable 265–300′ beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085–210° beyond 35 mi below 2,500′ MSL.

SALT FLAT VORTAC: VORTAC unusable 031–049° beyond 30 NM below 15,000′ MSL. (3–17)

UTAH

CEDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi 090–125° and beyond 35 nmi 125–150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040–080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330–005° and below 13,500′ MSL beyond 40 nmi from 170–200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180-220°; below 12,000′ MSL 280-310°: below 11,000′ MSL 310–330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025–115°, 30 nmi, 235–330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360–055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010–035°; below 16,000′ MSL 035–050°; below 15,000′ MSL 275-285°; below 14,000′ MSL 285-295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010-020°; below 20,000′ MSL 020-030°; below 23,000′ MSL 030–060°; below 24,000′ MSL 060–080°; below 19,000′ MSL 080-095°; below 17,000′ MSL 095-125°; below 16,000′ MSL 125–140°; below 16,000′ MSL 195-210°; below 10,000′ MSL 280–290°; below 16,000′ MSL 350–010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220–260°.

VERMONT

BURLINGTON VOR: VOR unusable 080–155° beyond 30 mi below 9,000′.

MONTPELLER VOR: VOR unusable 205–280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230–270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360–010° beyond 5 nmi, 010–020° beyond 10 nmi, 020–030° beyond 20 nmi, 030–040° beyond 10 nmi, 040–060° beyond 20 nmi, 190–210° beyond 5 nmi, 230–240° beyond 20 nmi, 240–300° beyond 5 nmi, 310–330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050–075° beyond 30 mi; 075–095° beyond 20 mi; 105–120° beyond 35 mi; and 165–215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355–010° beyond 18 nmi below MEA 030–070° beyond 20 nmi below MEA 170–190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215–250° beyond 8 mi below 1,800′ MSL and 215-270° between 14,500–18,000′ MSL.

LINDEN VORTAC: DME unusable 140–180° beyond 25 mi below 3,500′ MSL and 180–225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110–220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 286–360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

●BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130–150°, 4500′ MSL and 150–290°, 4000′ MSL. VOR intermittent roughness may be observed on V–23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RBN: H facil unusable 100–130° below 6500′ MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280°. VOR 348° rad unusable below 4500′ VOR intermittent roughness may be observed on V287, 148° rad below 7000′ from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210-270°. Coverage within R-6715 from 270-320° not flt checked.

PORT ANGELES VOR: VOR coverage 40 nmi: 220–110° at 7000′; 110-140° at 14,500′; 140–150° at 20,500′; 150-170 °at 29,000′; 170-190° at 20,500; 190-220° at 16,000′.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000′ MSL from 158–165° beyond 20 nmi below 12,000′ MSL from 305–355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000′ MSL and beyond 50 nmi below 18,000′ MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000′, 355–020° and 148–176°; below 7500′ from 130–150°; below 10,500′ from 020–060° and 110-130°: below 12,700′ from 065–110°.

WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000′ MSL 000–020° beyond 30 nmi below 20,000′ MSL 020–075° beyond 40 nmi below 14,000′ MSL 075-090° below 18,000′ MSL 090–190° below 19,000′ MSL 190–240°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325–350° beyond 20 mi below 5,000′ MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100–150° and 230–060° beyond 20 mi below 3,300′ MSL.

MADISON, TRAUX RDO: Truax VOR unusable within 10 mi above 7000′ MSL.

TIMMERMAN VOR: VOR unusable 300–310° beyond 35 mi below 3,400′ MSL.

WAUSAU VORTAC: DME unusable 300–310° beyond 30 nmi below 3000′ MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion onV–85 20–25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000′ MSL 160–175°; below 15,000′ MSL 175–200° and below 16,500′ MSL 200–230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexander, La. (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Alliance, Nebr.: 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR: 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16-34; 1000′ MSL.

Bemidji, Minn: 131°; over apch end rnwy 13; 1800′.

Big Spring, Tex.: 199°; over the rdo bcn; 1000′ AGL.

Billings, Mont: 073°; over int of rnwys 22-27; 4600′.

Blackstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 1500′.

Bloomington, Ill. (Mun): 080°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Blytheville, Ark.: 094°; over hangar adj to Admin Bldg.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brainerd, Minn.: 294° over centerline apch end rnwy 30; 1800′.

Brownwood, Tex.: 169°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

Burlington, Iowa: 296°; over rdo twr 3 nmi NNW Burlington Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

Butte, Mont.: 094°; intersection of rnwy 29-33; 6500′.

Cape Girardeau, Mo.: 032°; over smoke stack 3.2 NM NNE; 1700′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21-25-30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.; 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

Crestview, Fla. 106°; over rot bcn twr; 300′.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over metal hangar.

Cut Bank, Mont: 311°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 and 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Decatur, Ala. (Pryor): 092°; over intersection of rnwy and taxiway 236° from HSV; 1000′.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Des Moines, Iowa: 293°; over grain elev Cummings, Iowa; 2000′; 5.5 NM from VOR.

Devils Lake, N. Dak.: 178°; 7.2 nmi over 2087′ MSL rdo twr; 2600′.

Dublin, Ga. (Municipal): 067°; over SW end NE/SW rnwy.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin): 228°; trml bldg E side of arpt.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

El Paso, Tex.: 232°; over water twr, 2 mi SE of arpt; 5000′.

● **El Toro MCAS, Calif (Orange City):** 254°; over int rnwys. 19R and midfld txwys; 200′.

Emporia, Kans.: 047°; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evergreen, Ala.: 100.7° ; arpt bcn lgt twr lctd on Evergreen (Middleton) Arpt., 15.3 nmi from VOR.

● **Evansville, Ind. (Dress Memorial):** 056°; 13 miles over intersection E/W and NE/SW runways; 2000′.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR; 2300′.

Fayetteville, Ark.: 183°; VORTAC; white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; over water twr at Parktown, N.C. 8.0 nmi; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

Flint, Mich (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E–W hvy dist 4.9 nmi from transmitter.

Fort Smith, Ark.: 232°; water tank at N edge of arpt; 1300′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800′.

Fulton, Ga.: 288° over water tank 2.4 NM NW side of arpt; 2000′ MSL.

Gage, Okla.: 094°; over LFR; 3000′.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nmi; 4000′.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE–VOR; 2000′.

Grand Island, Nebr.: 142°; over smoke stack 5.5 nmi from VOR; 3100′.

Grand Junction, Colo. Walker Fld): 059°; int rnwys 29 and 22; 6500′.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000′.

Greeley, Colo. (Weld Co. Arpt): GLL 204°; over int rnwy 12 and E/W twxy; 6100′.

Hallsville, Mo.: 225°; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hastings, Nebr.: 266°; 11 nmi over RR crossing in center of town of Kenesaw; 3200′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt 10 nmi, 800′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C.: 225°; over end rnwy 24.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 20 nmi from the VOR.

Hobart, Okla.: 352°; centerline of N/S rnwy 100′ above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County): 030°; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Huron, S.D.: 153°; over ant. of Huron H facility; 2500′.

Hutchinson, Kans.: 033°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Iowa City, Iowa: 019°; over arpt bcn; 2000′.

VOR RECEIVER CHECK POINTS

Jack's Creek, Tenn. (McKellar) : 267° ; over bcn twr above arpt 27.5 NM ; 1500′.

Jackson, Miss. (Hawkins): 189° ; over int rnwys 11–29 and 34–16. 10.8 nmi

Janesville, Wis. (Rock Co. Arpt) : 034° ; over center of apch end of rnwy 04 ; 1600′.

Jefferson City, Mo.: 123° ; 9.1 NM over hwy bridge on Osage rvr ; 2500′ MSL.

Joliet, Ill.: 102° ; over centerline of NW end of NW/SE rnwy ; 1500′.

Kalispell, Mont (Flathead Co. Arpt): 314° ; apch end rnwy 9 : 4000′.

Kearney, Nebr: 215° ; over rdo twr KGFW, 4.8 NM SW of arpt ; 3000′.

Keeler, Mich.: 266° ; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich. ; 1600′.

Kennebunk, Me.: 061° ; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR ; 1500′.

Kirksville, Mo.: 138° ; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097° ; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR ; 1000′.

La Crosse, Wis.: 321° ; 5 nmi LFR ; alt 1800′.

Lafayette, Ind.: 135° ; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun) : 253° ; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni) : 041° ; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315° ; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal) : 025° ; over water twr and rotating lgt bcn on arpt. 17.0 nmi from HBG VOR, 800′.

Lawrenceville, Va.: 123° ; over arpt bcn ; 1500′.

Lewistown, Mont.: 072° ; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass) : 305° ; arpt ctl twr 7.6 nmi from LEX VOR ; 2500′.

Liberal, Kans.: 056° ; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 051° ; NE/SW rnwy Reynolds Fld, Jackson, Mich. ; 2000′.

Livingston, Mont.: 199° ; over ant of Livingston "H" facility ; 5700′.

London, Ky.: 027° ; trml bldg 3.7 nmi from LOZ VOR ; 2500′.

Lufkin, Tex.: 328° ; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun) : 246° ; 4.0 nmi from VOR over water tank ; 2000′.

Malden, Mo.: 349° ; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun) : 341° ; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi ; 1500′.

● **Manhattan, Kans. (Mun):** 062° ; 6 nmi over RR bridge SE ; 2,500′.

Manitowoc: 162° ; over Manitowoc Portland Cement Co. Stack 1.9 mi ; 1900′.

Marion, Ill: 274° ; int rnwys 6–24 and 18–36 at Southern Arpt ; 12 NM W ; 1000′.

Marquette, Mich.: 120° ; 5.5 nmi over NW tip of Pelesier Lake ; 2000′.

Marshall, Mo. (Meml) : 321° BWR ; over MHL VORTAC Bldg ; 2000′.

Massena, N.Y. (Richards) : 297° ; Admin Bldg ; 1500′.

Maxwell, Calif. (Willows-Glen Co. Arpt): 342° ; over apch end rnwy 34 ; 600′.

McComb, Miss. (Pike County) : 248° ; revolving arpt bcn.

McCook, Nebr.: 311° ; 8.5 nmi over int of E/W and NW/SE rnwys ; 3500′.

Medford, Oreg.: 212° (VOR) ; over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289° ; (Castle VOR) ; over end rnwy 30 ; 650′.

Midland, Tex. (Air Trml) : 170° ; over apch ends of rnwys 22 and 28 ; 1000′.

Millinocket, Me. (Mun) : 317° ; over FSS Bldg ; 1500′.

Minneapolis, Minn. (Crystal Arpt) : 166° ; over apch end rnwy 13L. 4.9 nmi VORTAC ; 1500′ nmi.

Minot, N. Dak.: 241° ; apch end rnwy 26 ; 1900′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.) : 192° ; intersection all rnwys : 3500′.

Montgomery, Ala. (Dannelly) : 319° ; over water twr, distance 6.1 nmi from VORTAC.

Monticello, Ark.: 329° ; 4.7 NM bcn twr.

Muskegon, Mich. (County) : 256° ; over Muskegon LFR ; 1500′.

Myrtle Beach, S.C. 061° ; over apch end rnwy 5 Crescent Beach Arpt. ; 500′.

Napa, Calif.: 046° ; over arpt bcn ; 500′.

Naperville, Ill.: 328° ; over RR underpass lctd ½ nmi NE of the DuPage County Arpt ; 2000′.

Nashville, Tenn.: 242° ; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047° ; over grain elevator Harlân, Iowa : 2500′.

Neosho, Mo.: 343° ; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

New Bern, N.C.: 259° ; Int of E/W rnwys Oak Grove (navy) arpt.

New Orleans, La. (Lakefront Arpt) : 081° ; over Lakefront twr.

Newton, Iowa: 142° ; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095° ; over racetrack town of Stanton, Nebr. ; 2600′.

North Bend, Oreg.: 254° ; intersection rnwy 22–31 ; 750′.

Northh Platte, Nebr. (Lee Bird) : 083° ; over water twr Brady, Nebr. ; 4000′.

Oklahoma City, Okla. (Wiley Post) : 041° ; OKC VOR int rnwys 17–35 and 12–30 ; 1800′.

Omaha, Nebr. (Eppley Fld) ; 310° ; centerline of SE end of NW/SE rnwy.

O'Neil, Nebr.: 117° ; at intersection of E/W road and the railroad ½ nmi SE of Inman, Nebr.

Oshkosh, Wis.: 017° ; WOSH Commercial Bcst twr 3.5 nmi from VOR.

Ottumwa, Iowa (Mun) ; 303° ; int of rnwys 32 and 22.

Park Rapids, Minn.: 208° ; over northern most of two twrs 5.2 nmi ; 2100′.

Peck, Mich.: 163° ; over apch end rnwy 3 on St. Clair Co. Arpt ; 2200′.

Philip, S.D.: 156° ; over 2712′ twr 5 nmi from VOR ; 3300′.

Phoenix, Ariz.: 256° ; centerline rnwy 8R–26L ; 2800′.

Picayune, Miss.: 140° ; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086° ; over windsock on top of hangar at Southern Pines, Pinehurst-Southern Pines Arpt.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4–22 and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500′.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450′.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800′.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

Presque Isle, Me.(AFB): 184°; Spragueville LFR site: 2000′.

Princenton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo, Colo. (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).

Quitman, Tex.: 241°; water tank, town of Alba, Tex.

Rawlings, Wyo. (Muni): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300′.

Raymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500′.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000′.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

Rochester, Minn.: 024°; int rnwys 13–31 and 2–20 8.5 NM; 3000′.

Roswell, N. Mex.: 027°; over apch end rnwy 3; 4000′.

Royston, Ga.: 067°; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt; 1250′.

Russell, Kans.: 092°; over water twr in center of town of Wilson, Kans.

Sacramento, Calif.: 015°; apch end rnwy 02; 100′.

Saginaw, Mich. (Tri-City): 058°; 6.7 mi NE of MBS VOR over hwy int US #10 and I 75; 1700′.

St. Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

● **Salina, Kans.:** 117°; over grain elevator town of Kipp 10 nmi; 2500′.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

Samsville, Ill.:064°; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

Sault Ste. Marie, Mich. (Mun): 336°; int E–W and NW/SE rnwys; 2100′.

Sayre, Okla. (Mun): 175°; over rot bcn twr; 3000′.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 4.9 nmi; 4500′ MSL.

Shreveport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.

Shreveport, La. (Greater Shreveport): 175°; over the Admin Bldg.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000′.

Sulphur Springs, Tex.: 229°; over awy bcn lgt on SE corner of arpt.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over center of segmented circle on Anniston, Ala. Arpt.; 2000′ MSL.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 122°; over int rnwys 13–31 and 4–22; 1000′.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

Thief River Falls Minn.: 124°; over RR & hiway crossing adj Hazel, Minn.; 2000′.

Thurman, Colo: 351°; in flt over Akron VOR transmitter site; 5600′.

Toccoa, Ga.: 179°; over arpt bcn; 1500′.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S–E/W rnwys; 1600′.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

Vienna, Ga. (VORTAC): 226°; over center of NE/SW rnwy, Cordele, Ga., Arpt.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.

Wichita, Kans.: 162°; centerline of NW end of NW/SE rnwy.

Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml): 011°; at bridge over Red River 8 nmi N of Sheppard AFB; 1500′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11: 2600′.

Willmar, Minn.: 289°; over twr at Pennock, Minn.; 2200′

Wilmington, N.C. (New Hanover Co.): 204°; over wea radar ant on arpt 5.5 nmi; 1000′.

Wink, Tex. (Winkler Co.): 149°; over int rnwy 22 and 13 5.9 nmi VOR; 3818′.

Winner, S.D. (Mun): 201°; over center of race track 7.8 nmi; 3000′.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C.: 295° (GSO VOR): over ctl twr.

Worland, Wyo. (Municipal): 010° Boysen Reservoir VORTAC; over taxi strip between Trml Bldg and rnwy 16–34; 5200′.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600′.

Yankton, S.D.: 257°; 7 nmi over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17–35; 400′.

GROUND

Aberdeen, S. Dak. (Saunders); 304°; midway and center of N/S taxi strip leading from S edge ramp on E side arpt.

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN): 207°; lctd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt): 002°; S-end on curve of taxiway 50′ W apch end rnwy 35 centerline.

Anderson, S.C. (Mun): 039°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun): 042°: adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l): Lctn #1-293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips): Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County): 051°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County): 140°; ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

Bismarck, N. Dak: 275°; N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 023°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City): 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and twr bldg on ramp.

Cedar Rapids, Iowa; 080°; rnwy runup pad apch end rnwy 13.

Chanute, Kans.: 051°; apch end rnwy 12.

Chattanooga, Tenn. (Lovell): 332°; centerline S taxiway at point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 200°; on yellow line on taxi strip immediately SE or apch end rnwy 8.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; intersection of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp on Easterwood Arpt.

Columbia, S.C. (Owens Fld): 022°; compass rose on parking ramp.

Columbia, S.C. (Mun): 332°; 6 NM E/W taxiway (parallels rnwy 10–28).

Columbus, Ga. (Muscogee Co.): 145°; pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM–TPA): 300°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison): 159°; intersection of center and parallel taxiways.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/SE rnwy.

Dothan Arpt, Ala: 334°; on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl): 160°; int of SW ramp and txwy T-2.

Dubuque, Iowa: 332°; on ramp at Term. Bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 3 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld): 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): Lctn #1—028°; lctd on taxiway leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Erie, Pa. (Erie-Port Erie): 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Amin Bldg.

Florence, S.C.: 235°; on taxiway W of the end of rnwy 18.

Fort Benning, Ga. (Lawson AAF): Lctn #1—021°; run up area on txwy at apch end of rnwy 20. Lctn #2—130°; run up area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt): 120°; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page): 172°; N side of Trml ramp.

● **Fort Riley, Kans (Marshall AAF):** 032°; on parking ramp adj to radar antenna.

Fort Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex.: 116°; on ramp N of terminal.

Frederick, Md. (Mun): 359°; txwy between rnwys near apch end rnwy 23.

● **Gallup, N. Mex. (Senator Clarke Fld):** 050°; ctr of txwy in front of term bldg; 5.2 nmi from VOR.

Goldsboro, N.C. (Seymour Johnson AFB): 280°; run up pad at apch end rnwy 8.

Great Falls, Mont. (Intl): #1-027°; Int NE/SW and E/W txwys adjt to apch end rnwy 34; 2.4 mi. #2-027°; on NE/SW txwys 100′ SW rnwy 25; 3.0 mi.

Greeley, Colo. (Weld Co. Arpt): Gill VOR 204°; Int rnwys 12 and E/W txwy.

Green Bay, Wis. (Austin-Straubel): 141°; Intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C.: 033°; Ramp in front of twr.

Greenwood, Miss.: 060°; central taxiway adj to ramp.

Greenwood, S.C. (County): 251° on taxiway apch end of rnwy 9.

Gulfport, Miss.: 098°; 100′ NW of ctl twr.

Harrison, Ark.: 131°; Int taxiway and ramp.

Helena, Mont.: 235°; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County): 030°; on runup pad apch end rnwy 3.

Holston Mountain, Tenn.: 282°; on ramp S of Term Bldg.

Hot Springs, Ark.: 246°; run-up area short of apch end rnwy 5.

Houston, Tex.: 202°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld): 007°: junction of N/S txwy and rnwy 16-34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 359°; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

Key West, Fla. (Boca Chica): 091°; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l): 127°; NW portion of ramp.

Kinston, N.C. (Stallings): 230°; 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga.: 106°; on compass rose at taxi strip intersection aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City): 053°; center of apch end rnwy 6

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351° last txwy W side apchg rnwy 19.

Las Vegas, N. Mex.: 231°; on apron N of FSS bldg.

Lawton, Okla.: 349°; on trml apron at the point intersecting the S taxi strip.

Little Rock, Ark. (Adams): 314°; on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

Longview, Tex. (Gregg Co): 126°; N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 103°; center of warm up pad for rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen): 026°; mid txwy to rnwy 17-35.

Manhattan, Kans. (Muni): 145°; on ramp in front of Trml Bldg.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Alpine): 314°; 5 NM from VOR intsxn NW/SE—NE/SW txwy, 450′ E apch end rnwy 30.

Marianna, Fla.: 310°; ESE end taxiway 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

McAlester, Okla. (Mun): 350°; taxistrip at terminal ramp.

McAllen, Tex. (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S txwy. Lctn #2— 012°; in front airline trml on gate two loading spot,.

Melbourne, Fla. (Eau Gallie). 145°; 500′ E of Term Bldg.

Meridian, Miss. (Ky): 121°; from run up ramp for rnwy 23.

Midland, Tex. (Air Trml): 178°; int txwy C and ramp in front of Trml Bldg.

Miles City, Mont: 036°; on txwy leading to rnwy 30.

Mineral Wells, Tex.: 307°; intersection of txwy and NW rnwy.

Missoula, Mont. (County): 340°; 5′ from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates): 107°; Int of N/S and E/W txwys E of rnwy 18–36. 109.5°; Int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

Monticello, Ark.: 329°; on ramp by gas pumps.

Morgantown, W. Va.: 157°; on txwy in front of Term Bldg.

Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX-AMA): 253°; on ramp in front of Admin Bldg.

New Bern, N.C.: 088°; on compass rose at ramp.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

New Orleans Intl, La. (Moisant Fld): 235°; center of perimeter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Ocala, Fla. (Mun): 139°; on ramp near trml bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bludg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Pahokee, Fla.: 344°; overrun rnwy 35.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.

Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S and E/W txwys of arpt.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

Raleigh, N.C.: 244°; end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°: on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1–19 and 305′ from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn-around E end rnwy 25. Lctn #2—261°; in center of turn-around W end rnwy 7.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 261°; right 3 rnwy 33, marker.

Rome, Ga. (Russeell Fld): 348°; Intersection of taxiways 200′ S of the terminal bldg.

St. Paul, Minn., (Downtown Arpt): 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parking ramp 500′ SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis): 236°; E edge of ramp in front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santta Rosa Calif. (Sonoma Co. Arpt): 083.5°; SW corner main ramp.

Sante Fe, N. Mex. (New Municipal): 334°; at junction main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N trml bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposite trml bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

Sioux Falls, S. Dak.: 148°; in line with E edge of txwy W of ctl twr, 75′ S from N edge of parking ramp.

South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200′ N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400′ S of N end of taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans.: (Philip Billard Arpt): 213°; N/S taxiway W of tetrahedron.

Truth or Consequences, N. Mex.: 157°; on NE/SW txwy 200′ NW of wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

Vichy, Mo.: 241°; on center line of NE/SW rnwy 125′ from NE end Rolla National Arpt.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex., (Muni): 132°; ramp N of terminal.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 051°; taxi strip at parking apron adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; vcnty of base operator ramp.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300′ from centerline rnwy 14–32.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1966

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL)
FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	×	
Balboa	FAA	×	
Cold Bay	FAA	×	
Dallas	BNF	×	
Guam	FAA	×	
Honolulu	ARINC	×	×
Miami	ARINC	×	×
New York	ARINC	×	×
New Orleans	ARINC	×	×
Okinawa	ARINC	×	×
Pago Pago	FAA	×	
Point Barrow	FAA	×	
San Francisco	ARINC	×	×
Shemya	FAA	×	
San Juan	ARINC	×	×
Seattle	ARINC	×	×
Wake Island	FAA	×	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard flields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

•LOCATION IDENTIFIERS

The following location identifiers are assigned:

CXO ----- Conroe, Texas, Montgomery County Airport
OLY ----- Olney, Illinois, Olney-Nobel Airport

• MEA, MCA, MOCA, MRA, MAA

Efctv imdtly: (1) add MCA 12,000 ft at Duckwall INT, Calif. E-bound on V–244. (2) V–6/V–8, IOW to Moscow INT, Iowa, MOCA raised to 2100 ft. (3) V–25W, SBP to PRB MEA 7000 ft; MOCA 4800 ft; MCA 6000 ft SBP, N-bnd. V–137, FLW to SBP MEA 7000 ft; MOCA 6400 ft; MCA 6000 ft SBP, E-bnd.

PLEASE NOTE!

CHANGE IN STANDARD FSS FREQUENCY

On October 14, 1965, the frequency 135.9 mc was discontinued and replaced with 123.6 mc.

SIMULTANEOUS OPPOSITE DIRECTION OPERATIONS ON PARALLEL RUNWAYS

Controls towers may authorize opposite direction operations on parallel runways, on parallel landing strips, or on a runway and a parallel landing strip, when the following conditions are met:

a. All operations are conducted in VFR conditions, two-way communications are maintained with the aircraft involved, and pertinent traffic information is issued.

b. For operations between sunrise and sunset, a distance of at least 1400 feet exists between parallel runway centerlines, between adjacent edges of parallel landing strips, or between adjacent edges of a runway and a parallel landing strip.

c. For operations between sunset and sunrise, a distance of 2800 feet exists between parallel runway centerlines. (Note: Simultaneous opposite direction operations are not authorized between sunset and sunrise on a runway and a parallel landing strip or on parallel landing strips.)

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V–282, V–203, V–91, V–475, DPK. Those at FL 180 and above will be routed via St. Eustache V–91, PLB, J–75, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V–487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–75, PLB, V–91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V–203, ALB, V–91, V–475, DPK. Those at FL 180 and above will be routed via G–1 Maxville, V–104, MSS, J–37, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V–91, ALB, V–203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–37, MSS, V–104, Maxville, G–1.

Flights from Toronto to Kennedy below FL 180 will be routed via V–36S, V–252, BGM, V–270, V–34, V–475, DPK. Those at FL 180 and above will be routed via V–36S, BUF, J–95, HUO, CMK, V–34, V–475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V–126, AVP, V–36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J–95, BUF, V–36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

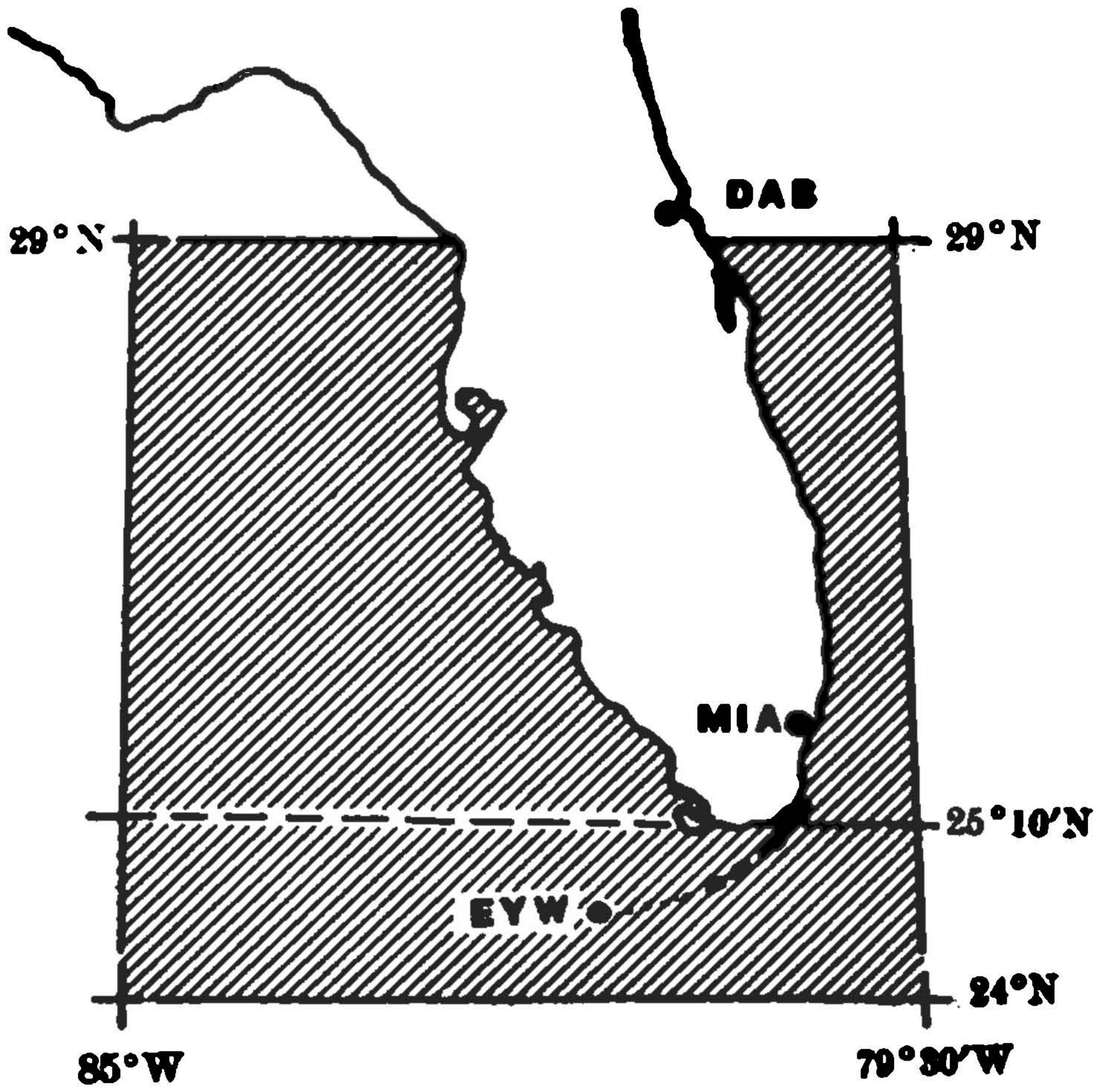
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

PART-TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

St. Petersburg, Albert Whitted Arpt: Efctv June 1, 1966. 0600-2200 local time daily.

Sarasota: 0600–2200 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

Benton Harbor: 0730–2200 local time daily.

Escanaba: 0730–2200.

Ironwood: 0630–2030 local time daily.

Menominee: 0800–2130 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainerd: 0730–2030 local time daily.

Fairmont: 0715–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

Winona: 0900–1845 local time Mon–Fri and 0900–1630 local time Sat and Sun.

Worthington: 0800–1845 local time daily.

MISSOURI

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

Kearney: 0700–2200 daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730-2100 local time daily.

NORTH DAKOTA

Devils Lake: 0600–2300 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Killeen: 0600–2000 local time daily.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630- 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

Tacoma Industrial Arpt: 0500–2400 local time daily except Sat 0500–2100 local time.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

Janesville: 0600–2300 local time Sun thru Fri and 0600–2200 local time Sat.

Manitowoc: 0800–2200 local time daily.

Rhinelander: 0700–2000 local time daily.

Stevens Point: 0700–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

g. To clear a departing aircraft via the route filed, the controller will state "CLEAR AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

The part-time manned facilities, the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0600–2000.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
●Laconia, New Hampshire—(Concord, New Hampshire)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO—O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for that aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

May 1966

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia Rivers. From takeoff climb to 1500', reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000' altitude. Stay over the River until passing through 3000' altitude unless otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1-AND 2-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 1500' prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 2000' prior to turning oncourse unless instructed to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.

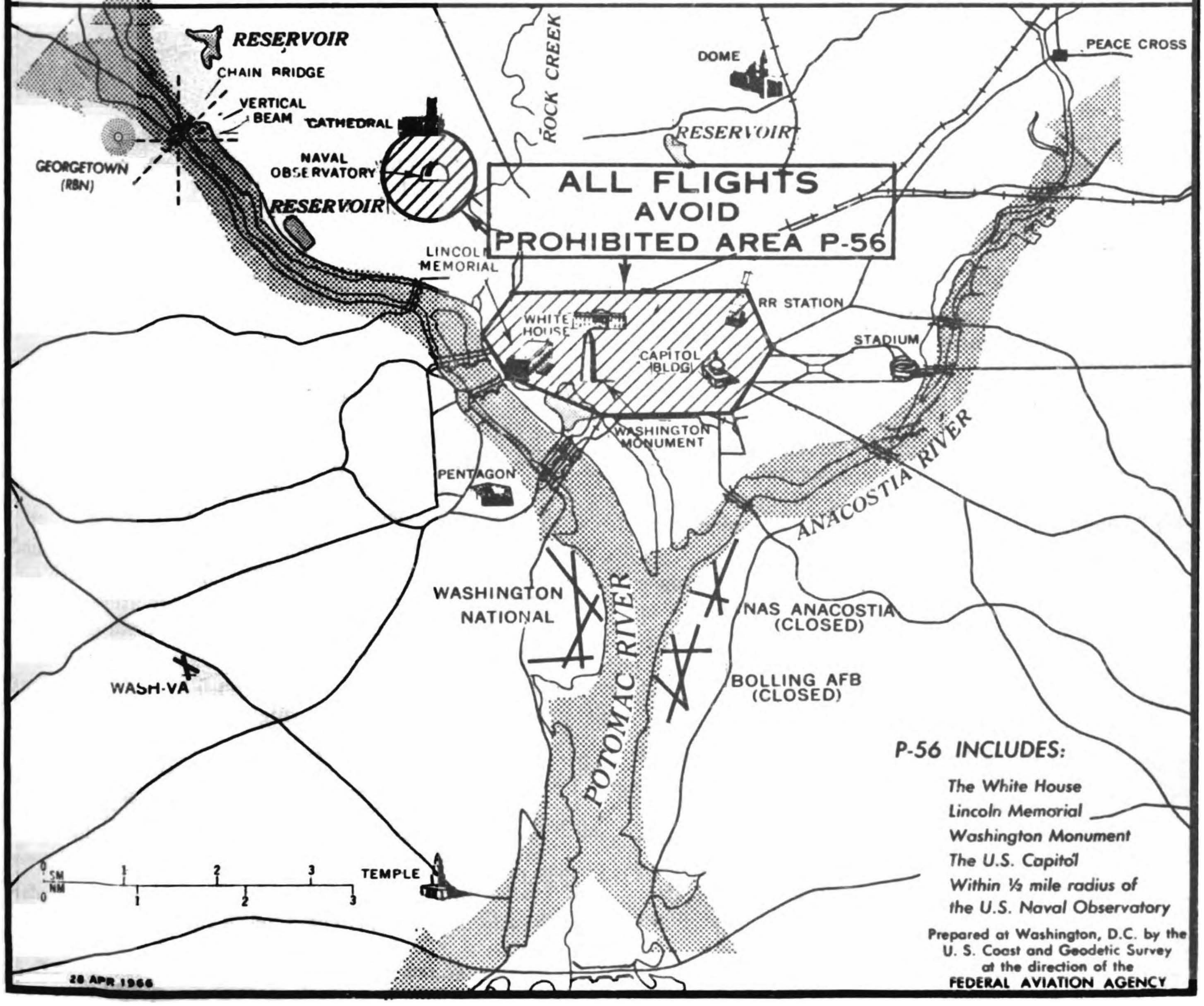
Remain at 2500' or higher while en route to final.

When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.

A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.

On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.

If VFR go around is required, climb over the River to 2500', enter traffic pattern for subsequent approach.


RESERVOIR
CHAIN BRIDGE
VERTICAL BEAM
CATHEDRAL
GEORGETOWN (RBN)
NAVAL OBSERVATORY
RESERVOIR
ROCK CREEK
DOME
RESERVOIR
PEACE CROSS
ALL FLIGHTS AVOID PROHIBITED AREA P-56
LINCOLN MEMORIAL
WHITE HOUSE
CAPITOL BLDG
RR STATION
STADIUM
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
POTOMAC RIVER
WASH-VA
TEMPLE
SM 0 1 2 3
NM 0 1 2 3
28 APR 1966

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of the U.S. Naval Observatory

Prepared at Washington, D.C. by the U. S. Coast and Geodetic Survey at the direction of the FEDERAL AVIATION AGENCY

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis.*
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

1. **Airspace North of V18N airway from the surface to 3000 feet MSL.**
2. **Airspace South of V18N airway from the surface to 2000 feet MSL.**
3. **All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   - a. Airports within the Atlanta TRSA:
     - (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   - b. Airports underlying the Atlanta TRSA:
     - (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   - c. Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
   - d. Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V-18N should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V-18N should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.

     In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	" "	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conyers	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

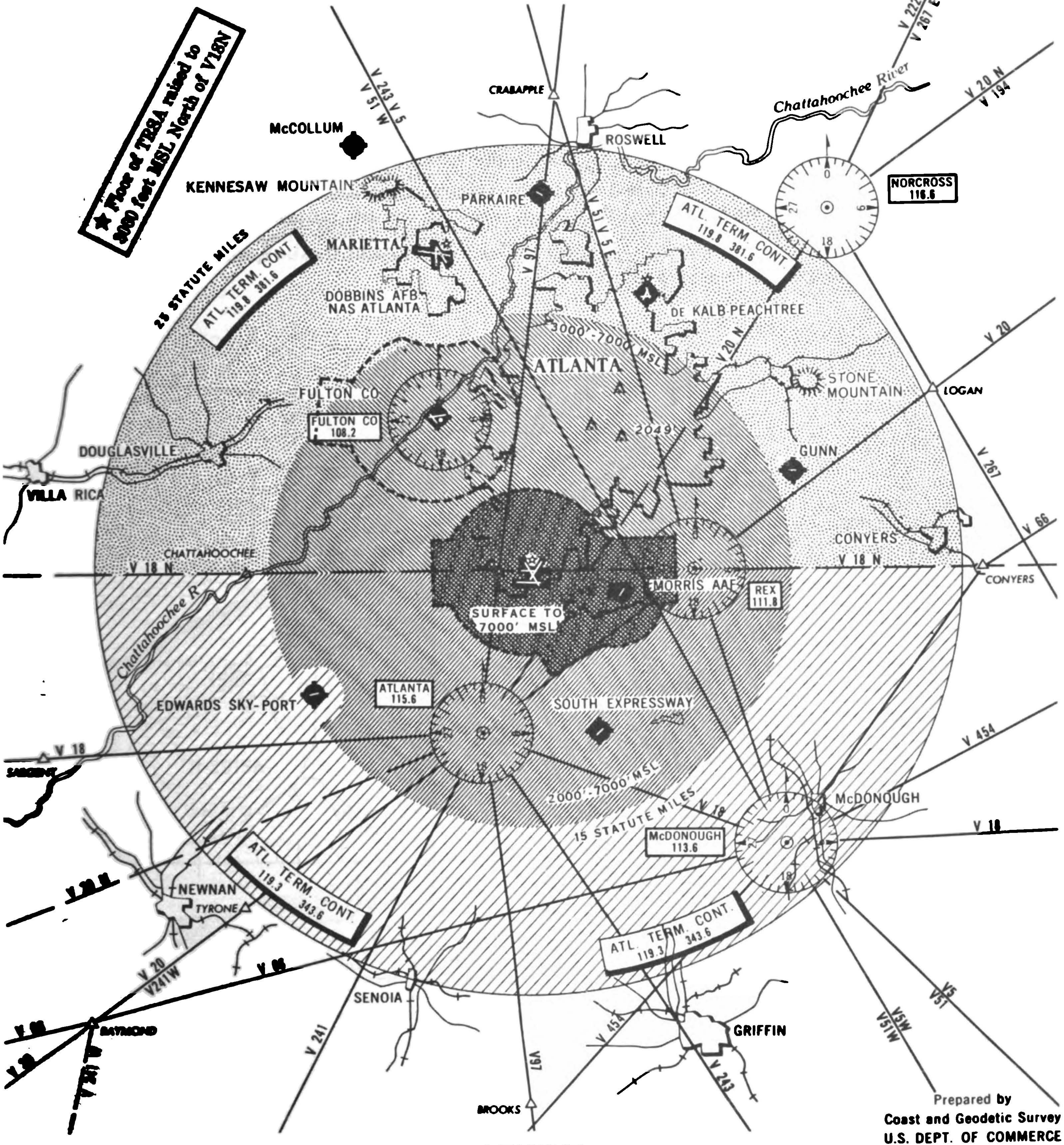
   NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024′ MSL


★ Floor of TRSA raised to 3000 feet MSL North of V18N
V 243 V 5
V 51 W
CRABAPPLE
ROSWELL
McCOLLUM
KENNESAW MOUNTAIN
PARKAIRE
V 222
V 267 E
Chattahoochee River
V 20 N
V 194
NORCROSS 116.6
ATL. TERM. CONT. 119.8 381.6
MARIETTA
DOBBINS AFB NAS ATLANTA
25 STATUTE MILES
V 97
V 51 V 5 E
DE KALB-PEACHTREE
3000′-7000′ MSL
V 20 N
ATLANTA
2049
STONE MOUNTAIN
LOGAN
V 20
FULTON CO.
FULTON CO 108.2
DOUGLASVILLE
VILLA RICA
GUNN
V 267
CHATTAHOOCHEE
V 18 N
CONYERS
V 66
MORRIS AAF
REX 111.8
SURFACE TO 7000′ MSL
Chattahoochee R
EDWARDS SKY-PORT
ATLANTA 115.6
SOUTH EXPRESSWAY
V 18
SARGENT
V 454
2000′-7000′ MSL
15 STATUTE MILES
McDONOUGH
McDONOUGH 113.6
ATL. TERM. CONT. 119.3 343.6
NEWNAN
TYRONE
V 20
V241W
V 66
RAYMOND
SENOIA
GRIFFIN
V 241
V 454
V 243
V5W
V51W
V5
V51
BROOKS

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA ▨ 2000′-7000′ ■ SURFACE TO 7000′ ▨ 3000′-7000′

CONTACT OR CALL-UP AREAS
North of V 18 N ░
South of V 18 N ▨

GEORGIA

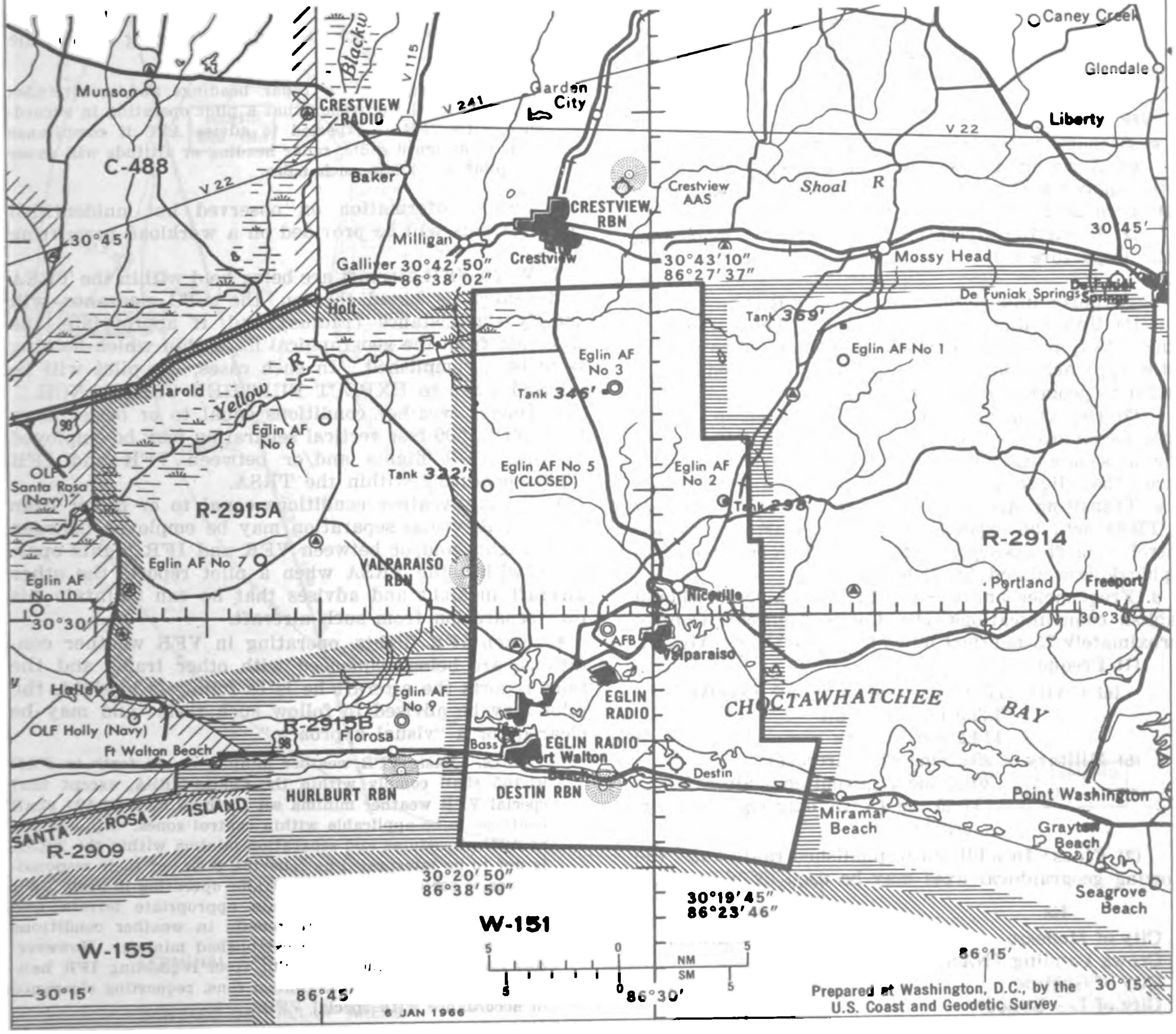
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.
6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

A special rule in effect sunrise to sunset, Monday through Saturday requires pilots to obtain information about special activities operating between R-2914 and R-2915A and B. These activities use varying altitudes but altitudes for VFR flight are always available. Contact Crestview Radio (122.1, 123.6, 126.7) or Eglin RAPCON (119.3) for information.


86°45'
86°15'
Munson
CRESTVIEW RADIO
Blackw
V 115
V 241
Garden City
C-488
V 22
Baker
CRESTVIEW RBN
Crestview AAS
Shoal R
Caney Creek
Glendale
Liberty
V 22
30°45'
Milligan
Galliver 30°42'50" 86°38'02"
Crestview
30°43'10" 86°27'37"
Mossy Head
30°45'
De Funiak Springs
Holt
Tank 359'
Eglin AF No 1
Eglin AF No 3
Yellow R
Harold
Tank 346'
98
Eglin AF No 6
OLF Santa Rosa (Navy)
Tank 322'
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 298'
R-2915A
R-2914
Eglin AF No 7
VALPARAISO RBN
Eglin AF No 10
Portland
Freeport
30°30'
Niceville
30°30'
AFB
Valparaiso
Holley
Eglin AF No 9
EGLIN RADIO
CHOCTAWHATCHEE BAY
OLF Holly (Navy)
R-2915B
Florosa
Ft Walton Beach
Bass
EGLIN RADIO
Fort Walton Beach
Destin
HURLBURT RBN
DESTIN RBN
Point Washington
SANTA ROSA ISLAND
Miramar Beach
Grayton Beach
R-2909
30°20'50" 86°38'50"
30°19'45" 86°23'46"
Seagrove Beach
W-151
W-155
5
0
5
NM
SM
5
0
5
86°15'
30°15'
86°45'
86°30'
30°15'

6 JAN 1966

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

CALIFORNIA

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West–Northwest
Crows Landing (NAS)	West
City of Gustine	West–Southwest
City of Los Banos	South–Southwest
City of Dos Palos	South
City of Chowchilla	East–Southeast
City of Madera	East–Southeast
City of Mariposa	East–Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

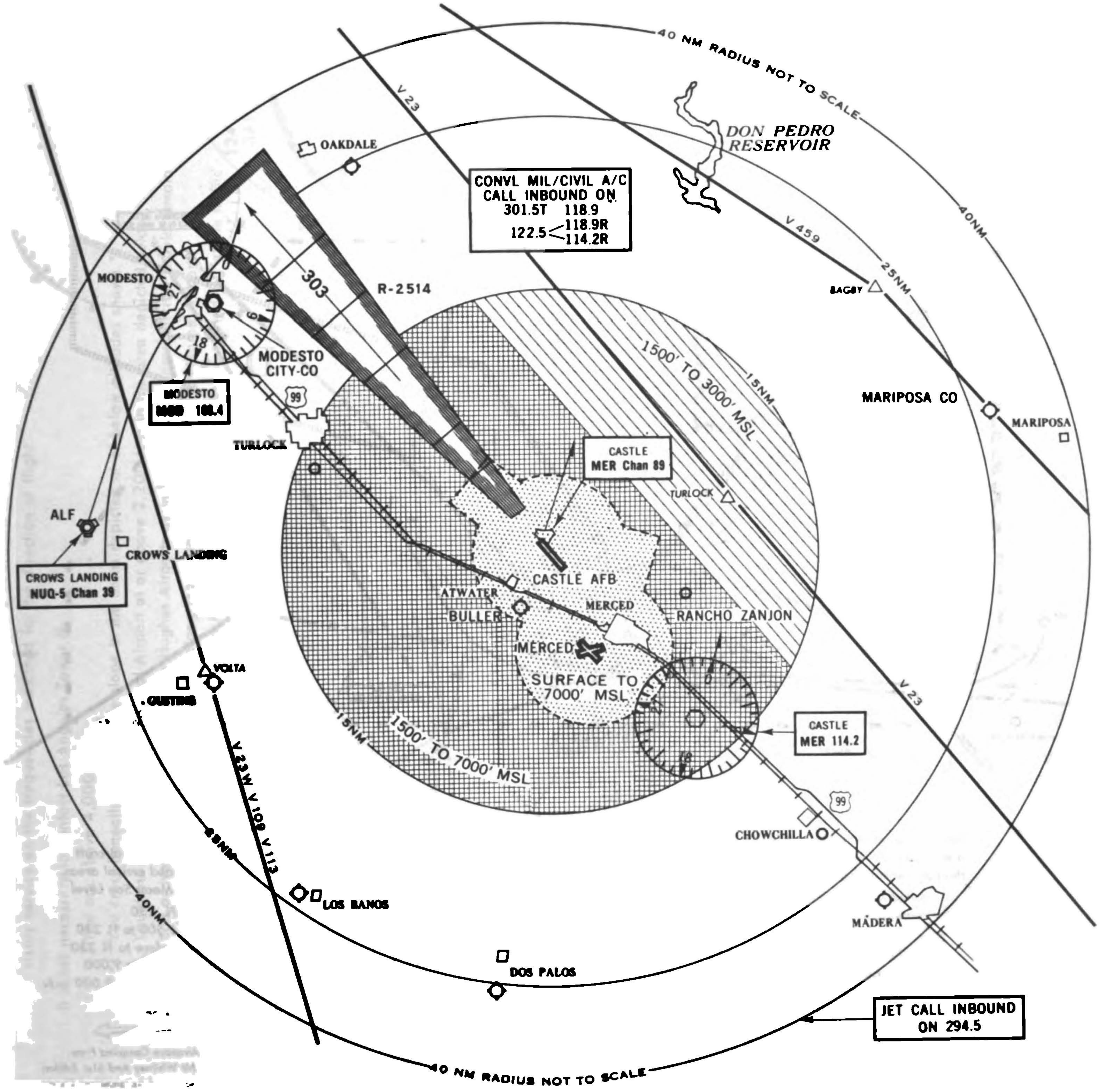
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188′ MSL


40 NM RADIUS NOT TO SCALE
V 23
DON PEDRO RESERVOIR
OAKDALE
CONVL MIL/CIVIL A/C CALL INBOUND ON 301.5T 118.9 122.5<118.9R 114.2R
V 459
40NM
25NM
BAGBY
303
R-2514
MODESTO
27
9
18
MODESTO CITY-CO
MODESTO
99
1500′ TO 3000′ MSL
15NM
MARIPOSA CO
MARIPOSA
TURLOCK
CASTLE MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING NUQ-5 Chan 39
CASTLE AFB
ATWATER
BULLER
MERCED
RANCHO ZANJON
MERCED
SURFACE TO 7000′ MSL
VOLTA
GUSTINE
15NM
1500′ TO 7000′ MSL
CASTLE MER 114.2
V 23
V 23W V 109 V 113
99
CHOWCHILLA
25NM
LOS BANOS
40NM
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA	▒ SURFACE TO 7000′	▨ 1500′ TO 3000′	▦ 1500′ TO 7000′

CONTACT OR CALL-UP AREAS

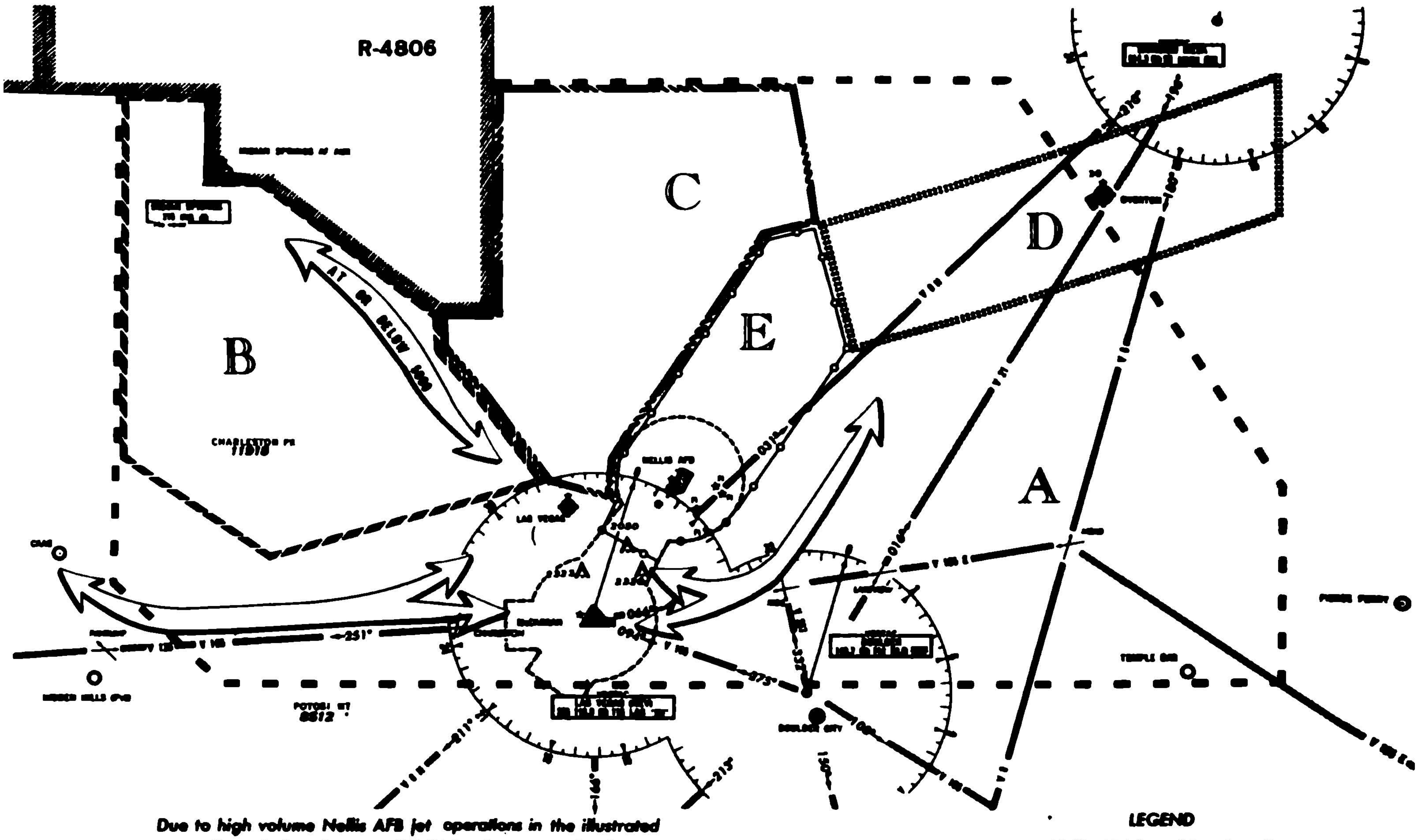
CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

16 SEP 1966

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LAS VEGAS TERMINAL AREA NOTICE

LAS VEGAS, NEVADA


R-4806
C
B
E
D
A
AT OR BELOW
CHARLESTON PK 11918
LAS VEGAS
NELLIS AFB
POTOSI MT 8612
BOULDER CITY
TEMPLE BAR
←251°
273°
150°
160°
215°

Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. a. *Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   - ● *Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Mormon Mesa Vortac for flight information.*

   b. *Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Las Vegas Air Terminal.*

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas.
Altitudes are Mean Sea Level

A ▬ ▬ ▬ FL 230
B ▰▰▰▰▰ 5,500 to FL 230
C ▬▬∿∿∿▬▬ Surface to FL 230
D ▪▪▪▪▪▪▪▪ 8,000 to 9,000
E ○——○——○ Surface to 9,000 inclv.

Recommended Itinerant
VFR routes ⇐⇒

Base And Airspace Compiled From
56th Edition Of Mt Whitney And 61st Edition
Of Los Angeles Sectional Aeronautical Charts

10
0 NAUTICAL
10 MILES
20
30
40
50
10
0 STATUTE
10 MILES
20
30
40
50

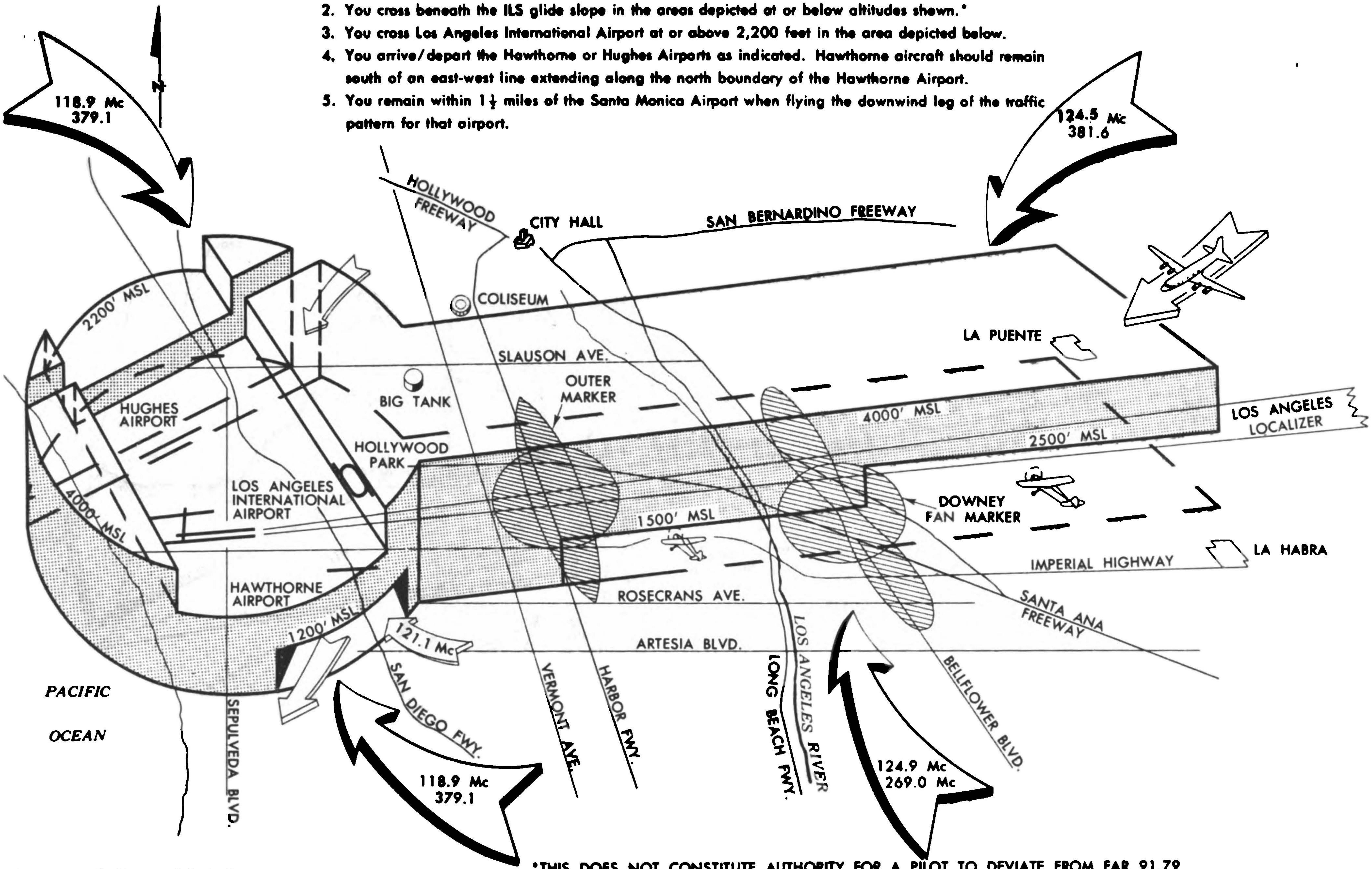
Prepared by
Coast and Geodetic Survey
U.S. DEPT OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.


118.9 Mc
379.1
N
124.5 Mc
381.6
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
COLISEUM
LA PUENTE
2200' MSL
SLAUSON AVE.
BIG TANK
OUTER MARKER
HUGHES AIRPORT
HOLLYWOOD PARK
4000' MSL
LOS ANGELES LOCALIZER
2500' MSL
LOS ANGELES INTERNATIONAL AIRPORT
4000' MSL
1500' MSL
DOWNEY FAN MARKER
LA HABRA
IMPERIAL HIGHWAY
HAWTHORNE AIRPORT
ROSECRANS AVE.
SANTA ANA FREEWAY
1200' MSL
121.1 Mc
ARTESIA BLVD.
PACIFIC
OCEAN
SEPULVEDA BLVD.
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LONG BEACH FWY.
LOS ANGELES RIVER
BELLFLOWER BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

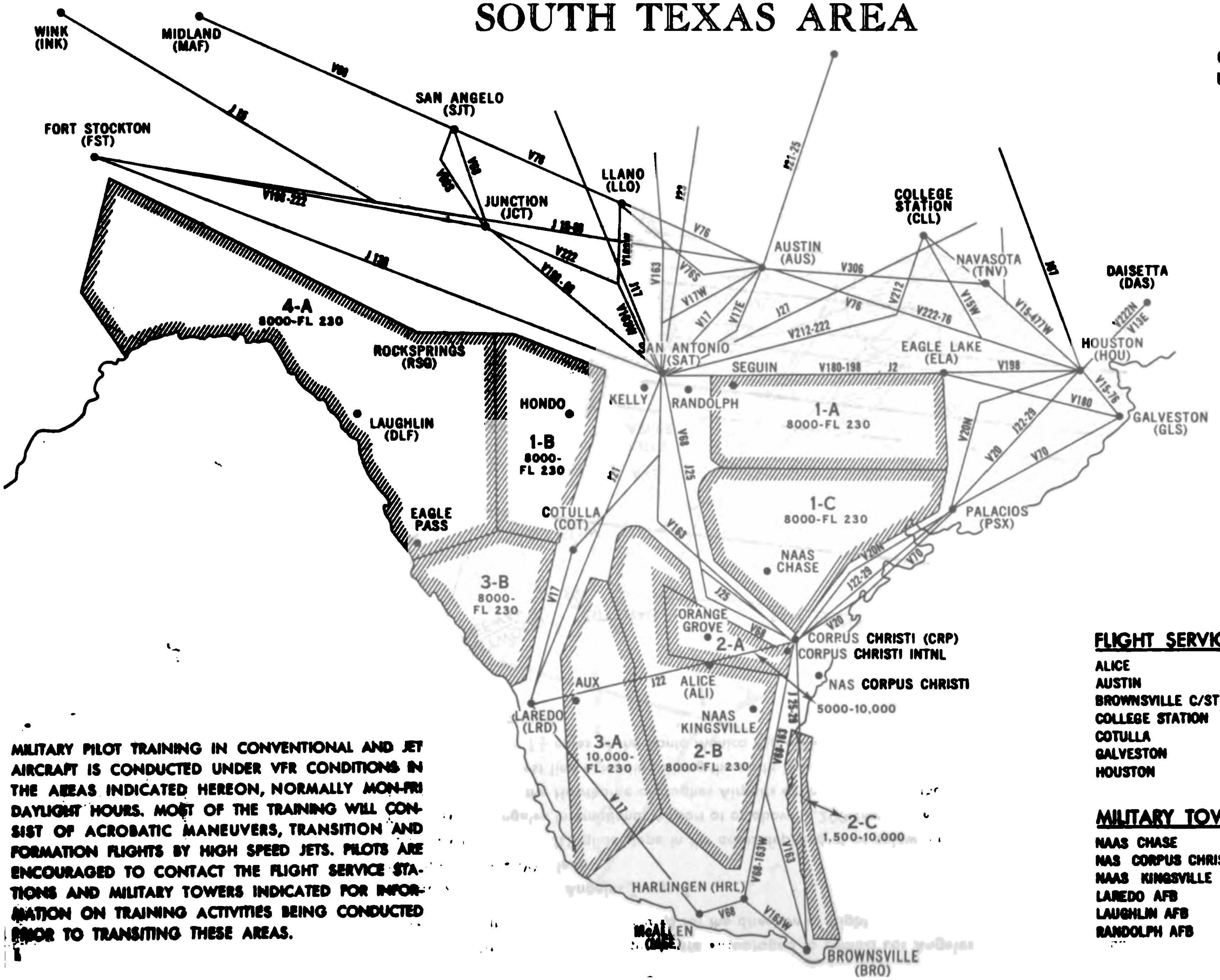
*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

22 JUL 1965

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN
SOUTH TEXAS AREA

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

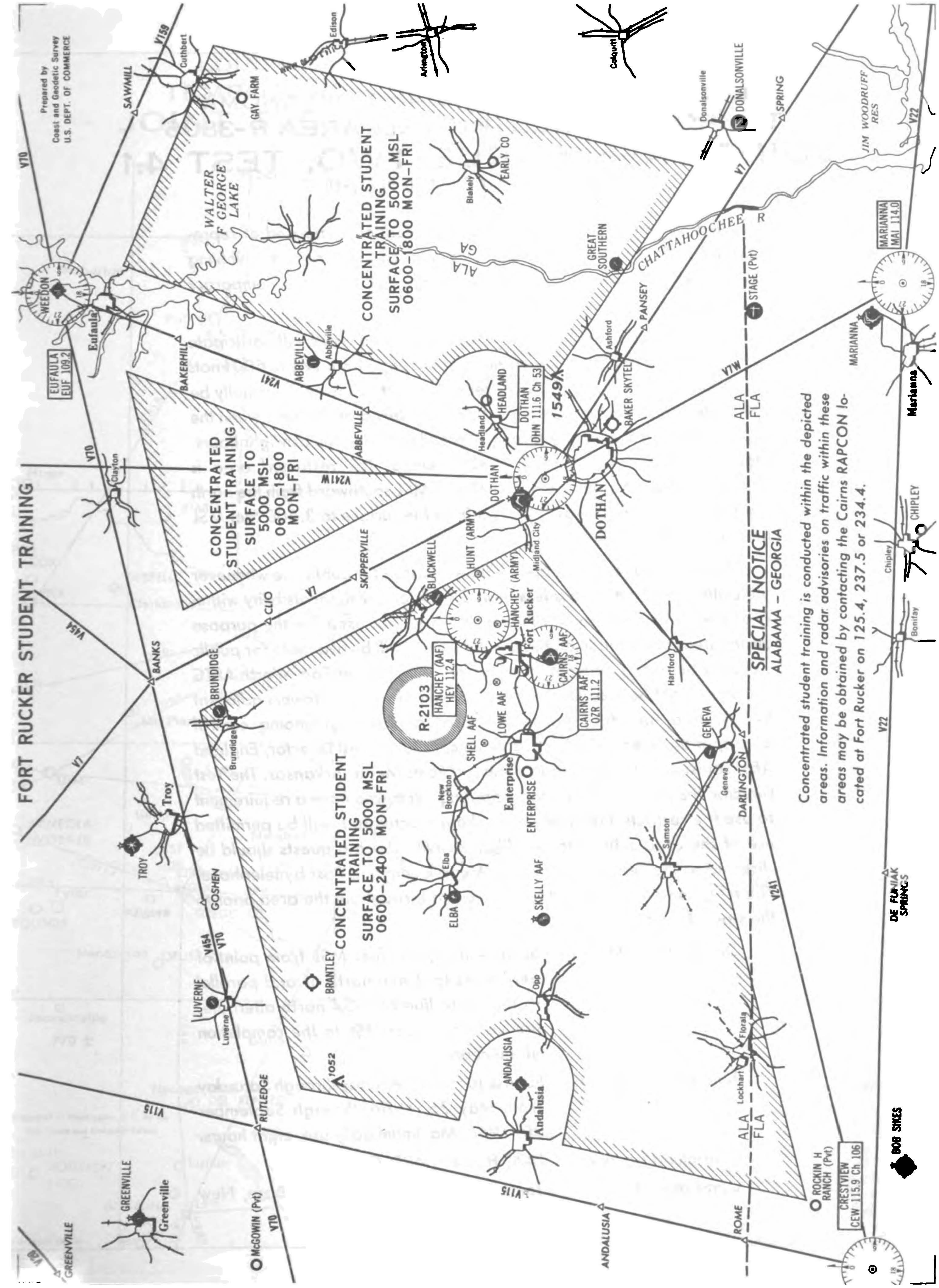

WINK (INK)
MIDLAND (MAF)
FORT STOCKTON (FST)
SAN ANGELO (SJT)
JUNCTION (JCT)
LLANO (LLO)
AUSTIN (AUS)
COLLEGE STATION (CLL)
NAVASOTA (TNV)
DAISETTA (DAS)
HOUSTON (HOU)
GALVESTON (GLS)
EAGLE LAKE (ELA)
SAN ANTONIO (SAT)
SEGUIN
KELLY
RANDOLPH
ROCKSPRINGS (RSG)
HONDO
LAUGHLIN (DLF)
EAGLE PASS
COTULLA (COT)
PALACIOS (PSX)
NAAS CHASE
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
5000-10,000
ORANGE GROVE
ALICE (ALI)
NAAS KINGSVILLE
AUX
LAREDO (LRD)
HARLINGEN (HRL)
McALLEN
BROWNSVILLE (BRO)
4-A 8000-FL 230
1-A 8000-FL 230
1-B 8000-FL 230
1-C 8000-FL 230
2-A
2-B 8000-FL 230
2-C 1,500-10,000
3-A 10,000-FL 230
3-B 8000-FL 230
V80
J65
V76
V66
V163
V16S
V17W
V17
V17E
J27
V306
V212
V212-222
V222-76
V15W
V15-477W
J87
V222N
V13E
V15-76
V180-198
J2
V198
V180
V20N
V20
J22-29
V70
V68
J25
V163
J21
V17
J22
J25-29
V68-163
V68-163W
V163W
V222
J138
V180-222
V181-68
J21-25

MILITARY PILOT TRAINING IN CONVENTIONAL AND JET AIRCRAFT IS CONDUCTED UNDER VFR CONDITIONS IN THE AREAS INDICATED HEREON, NORMALLY MON-FRI DAYLIGHT HOURS. MOST OF THE TRAINING WILL CONSIST OF ACROBATIC MANEUVERS, TRANSITION AND FORMATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE ENCOURAGED TO CONTACT THE FLIGHT SERVICE STATIONS AND MILITARY TOWERS INDICATED FOR INFORMATION ON TRAINING ACTIVITIES BEING CONDUCTED PRIOR TO TRANSITING THESE AREAS.

FLIGHT SERVICE STATIONS

- ALICE
- AUSTIN
- BROWNSVILLE C/ST
- COLLEGE STATION
- COTULLA
- GALVESTON
- HOUSTON
- JUNCTION
- McALLEN
- MIDLAND
- PALACIOS
- SAN ANGELO C/ST
- SAN ANTONIO
- WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	119.9 134.1
LAREDO AFB	122.5R 118.5T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2



FORT RUCKER STUDENT TRAINING

SPECIAL NOTICE
ALABAMA - GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns RAPCON located at Fort Rucker on 125.4, 237.5 or 234.4.

Prepared by Coast and Geodetic Survey U.S. DEPT. OF COMMERCE

CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-2400 MON-FRI
R-2103
EUFAULA EUF 109.2
WEEDON
Eufaula
WALTER F GEORGE LAKE
Cuthbert
SAWMILL
V159
V70
GAY FARM
Edison
Arlington
Colquitt
Blakely
EARLY CO
Donalsonville
DONALSONVILLE
SPRING
V7
JIM WOODRUFF RES
V22
ALA
GA
CHATTAHOOCHEE R
GREAT SOUTHERN
MARIANNA MAI 114.0
MARIANNA
Marianna
STAGE (Pvt)
PANSEY
Ashford
V71W
BAKER SKYTEL
DOTHAN DHN 111.6 Ch 53
HEADLAND
Headland
1549
DOTHAN
Dothan
Midland City
ABBEVILLE
Abbeville
BAKERHILL
V241
Clayton
V241W
SKIPPERVILLE
CLIO
BANKS
V454
BRUNDIDGE
Brundidge
Troy
TROY
GOSHEN
BLACKWELL
HUNT (ARMY)
HANCHEY (ARMY)
HANCHEY (AAF) HEY 112.4
Fort Rucker
CAIRNS AAF
CAIRNS AAF OZR 111.2
LOWE AAF
SHELL AAF
Enterprise
ENTERPRISE
New Brockton
Elba
ELBA
SKELLY AAF
Samson
Hartford
GENEVA
Geneva
DARLINGTON
ALA FLA
Chipley
CHIPLEY
Bonifay
Chipley
DE FUNIAK SPRINGS
Florala
Lockhart
Opp
ANDALUSIA
Andalusia
BRANTLEY
1052
LUVERNE
Luverne
V115
RUTLEDGE
GREENVILLE
Greenville
McGOWIN (Pvt)
ROCKIN H RANCH (Pvt)
CRESTVIEW CEW 115.9 Ch 106
BOB SIKES
ROME
ANDALUSIA

LOUISIANA, ARKANSAS AND OKLAHOMA TEMPORARY RESTRICTED AREA R-3806

JOINT TASK FORCE TWO, TEST 4.1

EFFECTIVE 26 MAY THRU 30 SEP 1966

Joint Task Force Two (JTF-2) an organization composed of representatives from all military services will conduct a test involving approximately 600 aircraft flights within the depicted temporary restricted area.

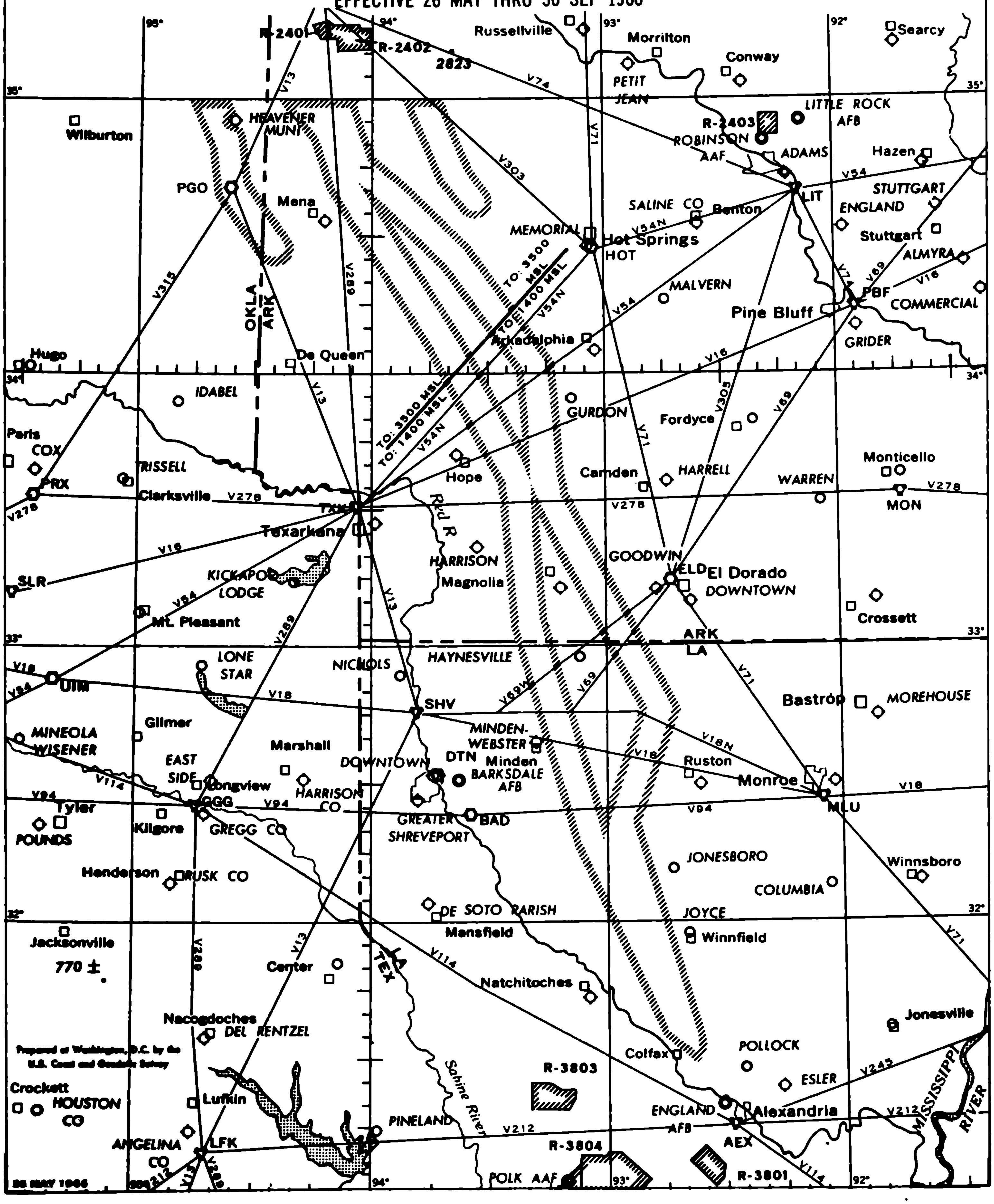
Navy, Marine, Army and Air Force aircraft and crews will participate in the test. Speeds of the various aircraft will range from 175 to 600 knots at altitudes normally below 500 feet. The test flights will normally be conducted within a six-hour period daily centered on the time when the sun is at its zenith, Monday through Saturday during the daylight hours. Maximum daily use by JTF-2 is eight hours. The restricted area is designated from the surface to 1,400 feet MSL southward from the north boundary of Victor Airway 54N and from the surface to 3,500 feet MSL north of V-54N.

This joint use restricted area will be released for public use whenever the ceiling over the area is less than 3,000 feet or flight visibility within is below five miles and at other times when not used for the purpose designated. Information on the times the area will be available for public use may be obtained from the Houston, Memphis or Fort Worth ARTC Centers, Flight Service Stations and combined stations/towers adjacent to the area, the Hot Springs, Arkansas or Tulsa, Oklahoma control towers, or by reverse charge telephone calls to the Test Director, England AFB, Louisiana, or the Mena Command Post, Mena, Arkansas. The Test Director has advised that nonparticipating pilots who have a requirement to use the restricted airspace even though activated, will be permitted use of the area subject to test flight activity. Such requests should be directed to the Test Director or the Mena Command Post by telephone. The telephone numbers will be publicized throughout the area prior to the start of the test.

Designated altitudes:	*Surface to 1,400 feet MSL from point of beginning to 4 nmi north of and parallel to the centerline of V-54 north alternate, thence 3,500 feet MSL to the completion of the courses.*
Time of designation:	*Sunrise to sunset, Monday through Saturday from May 26, 1966, through September 30, 1966. Maximum daily use, eight hours.*
Controlling agency:	*FAA, Houston ARTCC.*
Using agency:	*Joint Task Force Two, Sandia Base, New Mexico.*

LOUISIANA, ARKANSAS AND OKLAHOMA
TEMPORARY RESTRICTED AREA R-3806
JOINT TASK FORCE TWO, TEST 4.1

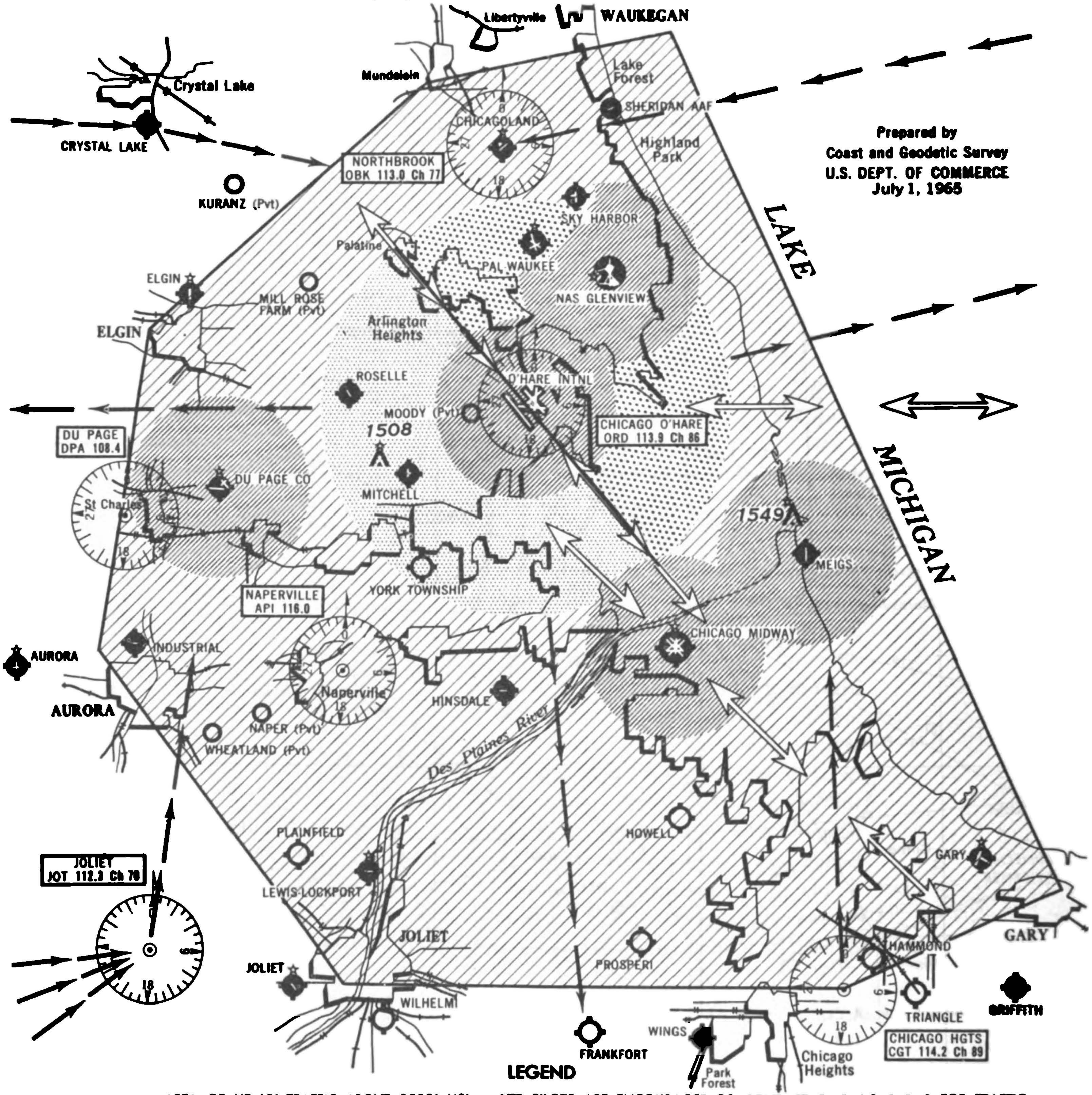
EFFECTIVE 26 MAY THRU 30 SEP 1966


95°
94°
93°
92°
35°
34°
33°
32°
R-2401
R-2402
2823
Russellville
Morrilton
Conway
Searcy
PETIT JEAN
V74
V13
HEAVENER MUNI
Wilburton
LITTLE ROCK AFB
R-2403
ROBINSON AAF
ADAMS
Hazen
V303
V71
V54
LIT
STUTTGART
ENGLAND
Stuttgart
ALMYRA
PGO
Mena
SALINE CO
Benton
MEMORIAL
V54N
Hot Springs
HOT
TO: 3500 MSL
TO: 1400 MSL
V289
V315
OKLA
ARK
MALVERN
Pine Bluff
PBF
V16
V69
COMMERCIAL
GRIDER
Arkadelphia
Hugo
De Queen
IDABEL
GURDON
Fordyce
V305
Paris
COX
TRISSELL
PRX
V278
Clarksville
Hope
Camden
HARRELL
WARREN
Monticello
MON
TXK
Texarkana
Red R
HARRISON
Magnolia
GOODWIN
ELD
El Dorado
DOWNTOWN
Crossett
SLR
KICKAPOO LODGE
V94
Mt. Pleasant
ARK
LA
LONE STAR
NICHOLS
HAYNESVILLE
UIM
V18
V69W
SHV
Bastrop
MOREHOUSE
MINEOLA WISENER
Gilmer
MINDEN-WEBSTER
V18N
Ruston
EAST SIDE
Longview
Marshall
DOWNTOWN
DTN
Minden
BARKSDALE AFB
Monroe
V114
Tyler
POUNDS
GGG
HARRISON CO
GREATER SHREVEPORT
BAD
MLU
Kilgore
GREGG CO
JONESBORO
Winnsboro
Henderson
RUSK CO
COLUMBIA
DE SOTO PARISH
JOYCE
Mansfield
Winnfield
Jacksonville
770 ±
Center
LA
TEX
Natchitoches
Nacogdoches
DEL RENTZEL
Jonesville
Prepared at Washington, D.C. by the
U.S. Coast and Geodetic Survey
Colfax
POLLOCK
R-3803
Crockett
HOUSTON CO
Lufkin
Sabine River
ESLER
V245
ENGLAND AFB
Alexandria
V212
MISSISSIPPI RIVER
PINELAND
ANGELINA CO
LFK
R-3804
AEX
POLK AAF
R-3801
26 MAY 1966

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Mundelein
Crystal Lake
CRYSTAL LAKE
Lake Forest
SHERIDAN AAF
CHICAGOLAND
NORTHBROOK
OBK 113.0 Ch 77
Highland Park
KURANZ (Pvt)
SKY HARBOR
Palatine
PAL WAUKEE
NAS GLENVIEW
ELGIN
MILL ROSE FARM (Pvt)
ELGIN
Arlington Heights
LAKE
ROSELLE
O'HARE INTNL
MOODY (Pvt)
1508
CHICAGO O'HARE
ORD 113.9 Ch 86
DU PAGE
DPA 108.4
DU PAGE CO
St Charles
MITCHELL
1549
MICHIGAN
MEIGS
NAPERVILLE
API 116.0
YORK TOWNSHIP
CHICAGO MIDWAY
AURORA
INDUSTRIAL
Naperville
HINSDALE
AURORA
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
GARY
JOLIET
JOT 112.3 Ch 70
LEWIS-LOCKPORT
JOLIET
GARY
HAMMOND
JOLIET
PROSPERI
WILHELMI
TRIANGLE
GRIFFITH
WINGS
FRANKFORT
CHICAGO HGTS
CGT 114.2 Ch 89
Park Forest
Chicago Heights

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

▦ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L

░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▨ AIRPORT TRAFFIC AREA – – CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC ⟶

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

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EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nml. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nml, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc then Indianapolis Departure Radar Service, 121.3 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 034° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

•

Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. Inbound on 282° thru 100° use 121.1 mc or 360.8 mc; **Departure freq:** 120.4 or 381.4 mc when advised by tower.

Norfolk Municipal Airport, Virginia

Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 127.2 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting, will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF."

● Washington National Airport District of Columbia

Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P-56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 118.3 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information service (WTIS) on 118.3 mc or 306.3 mc.

NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective November 1966.

Alabama
Athens, Magnusson Fld 1E
Bayou La Batre, Roy E. Ray 4NE
Jackson Muni 2S
St. Elmo, Sky Ranch 2.5N

Arizona
Arizona City 1S
Bouse 0.5E
● Tolleson, Moseley Fld 3N

Arkansas
Watson, Shilow 7 SE

California
● Midland 1 S
● Ojar, Henderson Fld 3 SW
Pleasant Grove, Van Dyke 3 N

Colorado
Greeley, Easton 7.5SE
● Rocky Ford, Mellon Fld 3 SW

Florida
Winter Haven Muni Seaplane Base 3 NNW

Georgia
Asburn, Turner Co. 1 SW
Canon, Franklin Co. 2.5 SW
Jesup, Redlands 5 NW
Patterson, Forestry 2 SE
Sylvester, Worth County 4 NW

Illinois
Baldwin, Redpath 2 E

Indiana
Mentone, Manwaring 0.8 NW

Iowa
Mount Veron, Tonne 4.0 N
Sidney, Knox 3 WSW
Wapello, Brockway Flying B 2.5 NW

Louisiana
● Bassier City, Scopena Plantation 10 SE
Belle Rose, Cone Air 1 W
Cottonport Flying Service 0.3 W
Coushatta, Hanna 1 S
● Darnell, Boyou Meadows Airstrip 4 NE
Melville, Hanks 1 S
Mer Rouge, Bacon 1 S
Mora, James 4 E
Patterson, Tri Ville Aviation Inc Seaplane Base 1 SE
St. Joseph, Hunter May 4 N
Shreveport, Aero Enterprises 7.1 S
Starks 3 S
Tendal 4 B Ranch 2 SE
Transylvania, Batton 3 W

Michigan
Selkirk, Thompson 0.3 SE

Mississippi
Fort Adams, Kees Ranch 8 N
Lucidale, Farmco Fld 11 S
Monticello, Clay 1 N
Tylertown 2.5 NW

Missouri
Desota 0.5 E

● Montana
Anaconda, Mt. Haggins Landing Strip 11.5 SW

Nevada
Coaldale 1 S
Fernley, Southwest Gas Airstrip 3 SE
● Oxford 2 W
● Pahrump, Hidden Hills 16 SE
Round Mountain, R. O. Ranch 15 N

New Jersey
Newton 1.9 S

● New Mexico
Loco Hills 0.2 S

New York
Brant Air Service Landing Area 1 SW
West Bloomfield Flying Club 1.5 SW

● North Dakota
Rutland, Pearson 4.5 N

● Ohio
Galloway, Columbus Arpk, Inc. 3 NE of West Jefferson

● South Carolina
Union County 2 SW

●**Tennessee**

Spring Hill, Haynes Haven Farm 3 SW

Texas

●Eldorado, Derrick Ranch 21 E
●Fort Worth, Oak Grove Heliport 13 S
●Graford, Harmar Marina 12 WSW
Grandview, McLeroy Ranch 2 NNW
Honey Grove, Burchinal 2 W
Laredo, Link Ranch 6 S
Martin, Huff Fld 1 SE
Mesquite, Cole 5 SE
Port Lavaca, Calhoun County 4 NW
Sabinal, McCullough Ranch 12 N
Vernon, Lockett 6 SW

● **Washington**

Enumclaw 1.4 WSW

West Virginia

Alderson, Riverside 1 W

● **Wyoming**

Marshall, Robbins 2 S

Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

●**California**

Buttonwillow-Kern Co. (a)
Culver City, Hughes (c)

● **Connecticut**

Marlborough-Lesewski 3 SE (c)

● **Delaware**

Magnolia, Johnson adj W (c)

● **Florida**

Geneva, Bruce 3 SE (a)

Louisiana

Wisner Airstrip 1 W(c)

● **Maryland**

Baltimore, Rutherford 7 NW (c)

Mississippi

Belzoni Charter Service 1 E(a)
Magnolia, Progress 10 SE(a)

Missouri

St. Joseph, Eastside 1 E(a)

● **Montana**

Lodge Grass, Pope 8 SE (a)

New York

Albany, Tallent Fld 6.5 SW(a)
Kerhonkson, Piolis Brookside 4 NNW(c)
Lafargeville, Tims Angus Farms 3 E (c)

North Carolina

Gibsonville, McLean Bros 1 SW(c)

Ohio

Amelia, Sky Hill NE (a)
Circleville, Elsea 2 N (a)
Norwalk, 2N (a)
Tiffin, Circle V Flying Fld 4SW (a)

Oklahoma

Muscogee, Schumacher 3 S(a)

● **Pennsylvania**

Hawley-Greenetown Mountain Bay, Lake Wallenpaupack 6 SW (a)
Mahanoy City, Bedinsky 2 SE (c)

● **Texas**

Arlington, Lucas 3 SW (c)
Palacios, Richman 5 NE (c)
San Angelo, West Texas Boys Ranch 15 SW (a)
Sanderson 2 W (a)
Sudan Adj S (a)
Valentine 1 NW (a)

Utah

Torrey 1 S (a)

● **West Virginia**

Fairmont Muni 2 SE (a)

Wisconsin

●Neenah, Valley Airways 3 SW (c)
Plymouth, Carm 2 NW (a)
●Sturtevant, Air City (a)

MILITARY AERIAL REFUELING TRACKS

Effective February 7, 1966

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak.,	GSG 072/88		FSD 003/67.
	Iowa. Minn.	MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak.,	GSG 092/77		FSD 346/42.
	Iowa. Minn.	MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N.	FAR 225/42		SAW 242/39.
	Dak., S. Dak.	SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N.	ABR 038/37		SAW 219/62.
	Dak., S. Dak.	SAW 151/64		FAR 137/65.
AR-110 Advance	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
		LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
AR-307 Big Fish	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
AR-308 Blue Cross	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription on request to the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Md. 20852 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section II–A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B–52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,300' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL; to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

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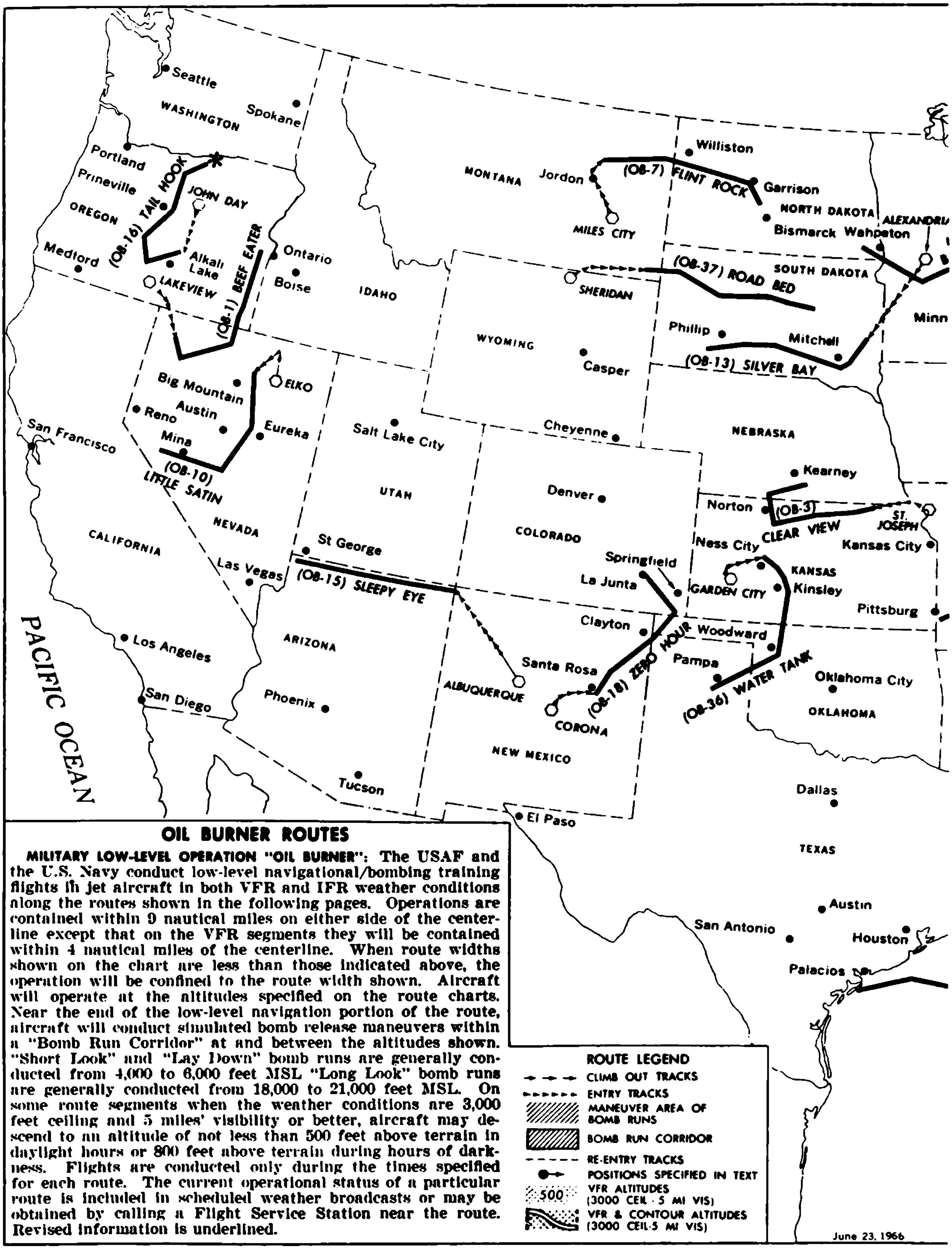
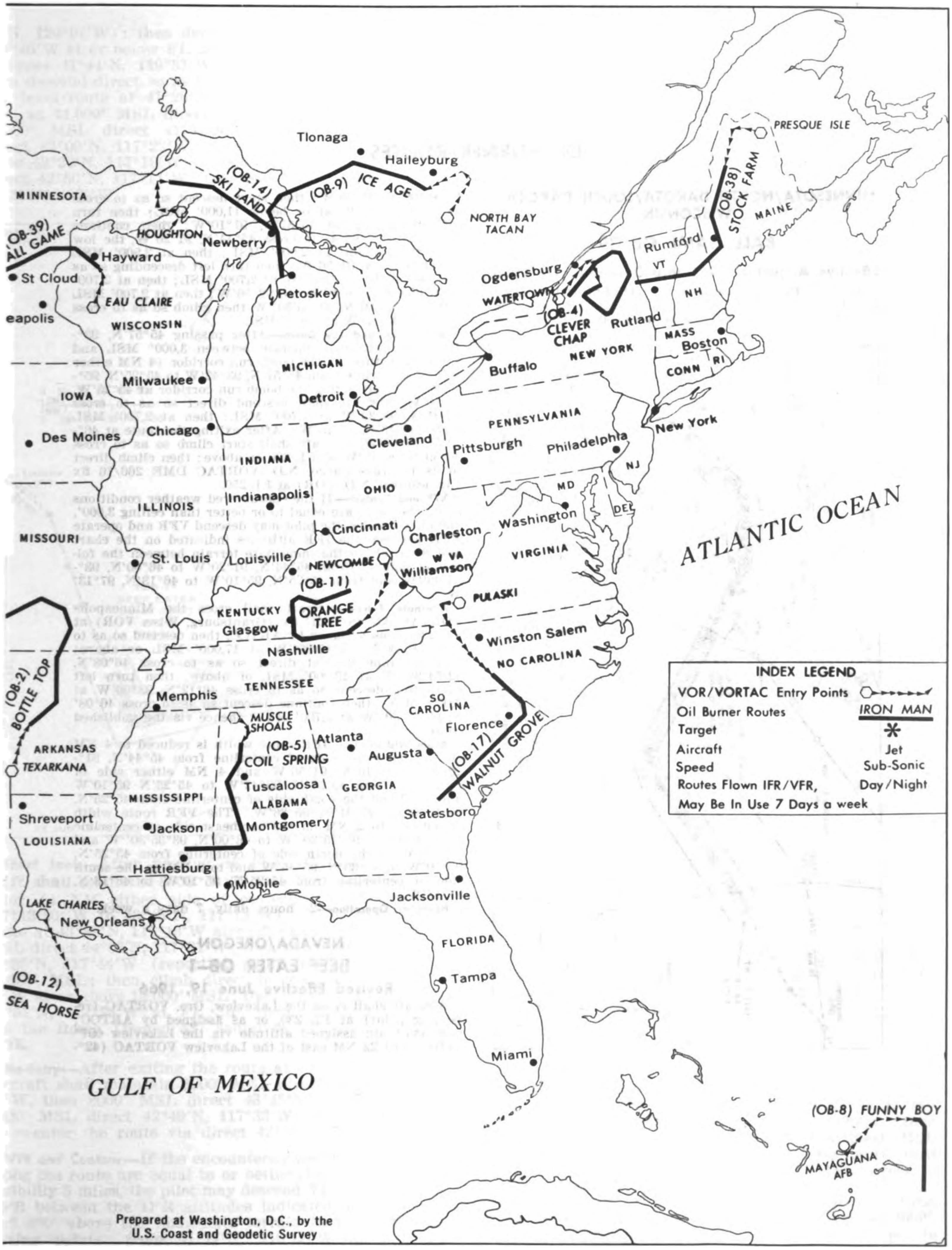

Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
LAKEVIEW
(OB-1) BEEF EATER
Ontario
Boise
IDAHO
MONTANA
Jordon
(OB-7) FLINT ROCK
MILES CITY
Williston
Garrison
NORTH DAKOTA
Bismarck
Wahpeton
ALEXANDRIA
(OB-37) ROAD BED
SHERIDAN
SOUTH DAKOTA
Phillip
Mitchell
(OB-13) SILVER BAY
Minn
WYOMING
Casper
Cheyenne
NEBRASKA
Big Mountain
Austin
Reno
Mina
ELKO
Eureka
(OB-10) LITTLE SATIN
San Francisco
NEVADA
CALIFORNIA
Salt Lake City
UTAH
Denver
COLORADO
Kearney
Norton
(OB-3) CLEAR VIEW
ST. JOSEPH
Kansas City
Ness City
Springfield
La Junta
GARDEN CITY
KANSAS
Kinsley
Pittsburg
St George
Las Vegas
(OB-15) SLEEPY EYE
Clayton
(OB-18) ZERO HOUR
Woodward
Pampa
(OB-36) WATER TANK
Oklahoma City
OKLAHOMA
Los Angeles
ARIZONA
Santa Rosa
ALBUQUERQUE
CORONA
San Diego
Phoenix
NEW MEXICO
Tucson
El Paso
Dallas
TEXAS
PACIFIC OCEAN
Austin
San Antonio
Houston
Palacios
ROUTE LEGEND
CLIMB OUT TRACKS
ENTRY TRACKS
MANEUVER AREA OF BOMB RUNS
BOMB RUN CORRIDOR
RE-ENTRY TRACKS
POSITIONS SPECIFIED IN TEXT
500
VFR ALTITUDES (3000 CEIL - 5 MI VIS)
VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)
June 23, 1966

OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

INDEX OF OIL BURNER ROUTES


Tlonaga
Haileyburg
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
PRESQUE ISLE
(OB-38) STOCK FARM
MAINE
MINNESOTA
(OB-39) ALL GAME
HOUGHTON
Newberry
Hayward
St Cloud
EAU CLAIRE
eapolis
WISCONSIN
Petoskey
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
Rumford
VT
NH
Rutland
MASS
Boston
RI
CONN
NEW YORK
Buffalo
MICHIGAN
Milwaukee
IOWA
Detroit
Des Moines
Chicago
Cleveland
PENNSYLVANIA
Pittsburgh
Philadelphia
New York
NJ
INDIANA
OHIO
MD
DEL
Indianapolis
ILLINOIS
Washington
ATLANTIC OCEAN
MISSOURI
Cincinnati
Charleston
W VA
VIRGINIA
St. Louis
Louisville
NEWCOMBE
Williamson
(OB-11)
PULASKI
KENTUCKY
ORANGE TREE
Glasgow
Winston Salem
Nashville
NO CAROLINA
(OB-2) BOTTLE TOP
TENNESSEE
Memphis
SO CAROLINA
MUSCLE SHOALS
Florence
ARKANSAS
(OB-5) COIL SPRING
Atlanta
Augusta
(OB-17) WALNUT GROVE
TEXARKANA
Tuscaloosa
GEORGIA
MISSISSIPPI
ALABAMA
Statesboro
Shreveport
Jackson
Montgomery
LOUISIANA
Hattiesburg
Mobile
Jacksonville
LAKE CHARLES
New Orleans
FLORIDA
(OB-12) SEA HORSE
Tampa
Miami
GULF OF MEXICO
(OB-8) FUNNY BOY
MAYAGUANA AFB
INDEX LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes
IRON MAN
Target
*
Aircraft
Jet
Speed
Sub-Sonic
Routes Flown IFR/VFR,
Day/Night
May Be In Use 7 Days a week

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

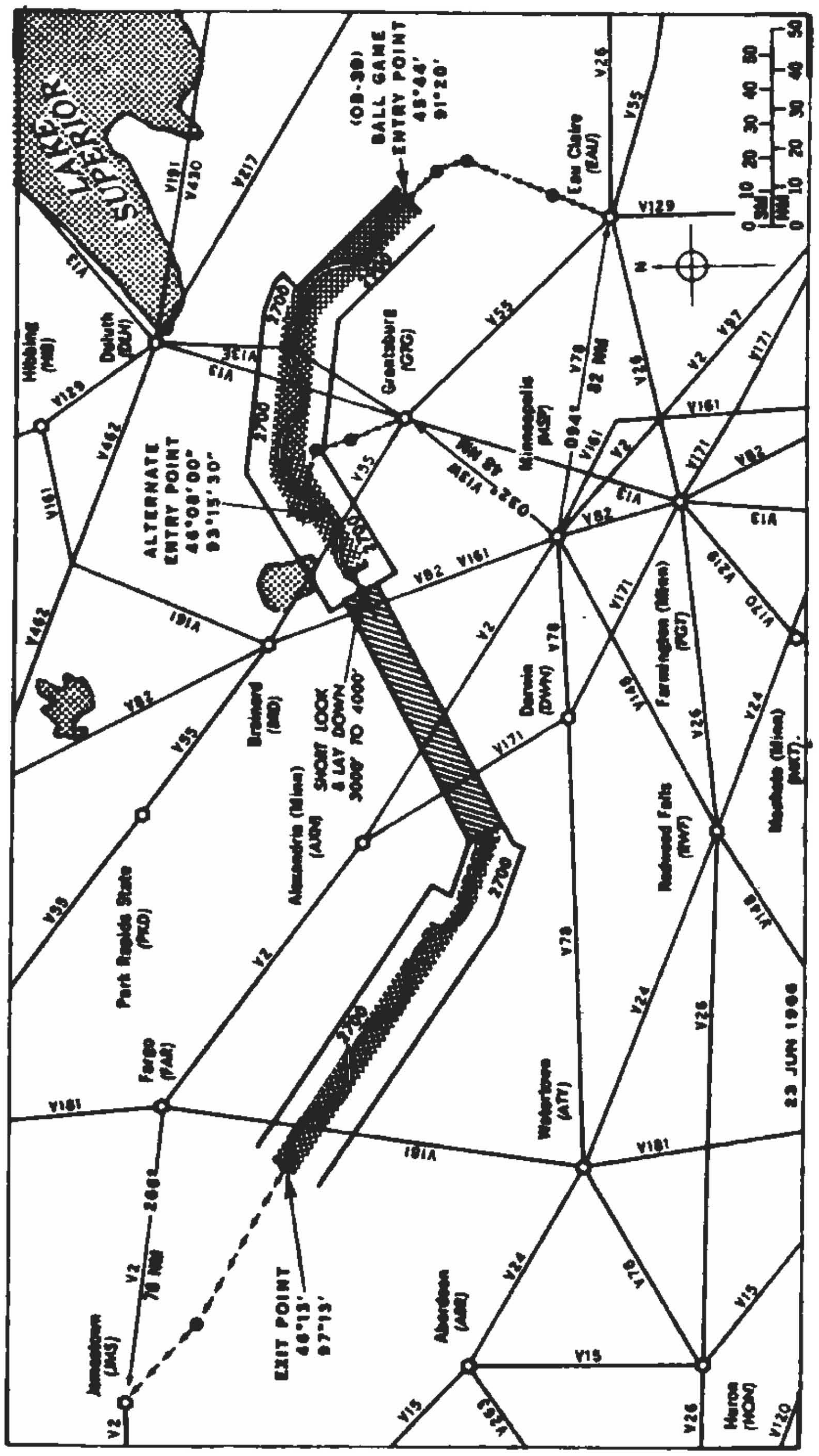
OIL BURNER ROUTES

MINNESOTA/NORTH DAKOTA/SOUTH DAKOTA/ WISCONSIN

BALL GAME OB-39

Effective August 1, 1966 thru December 16, 1966

Aircraft shall cross Minneapolis VORTAC 004/82 DME fix (Eau Claire, Wisc. VOR) at FL 230 or as assigned by ARTCC; then at FL 230 or assigned altitude direct to 45°08'N, 91°20'W; then start descent so as to cross 45°29'N, 91°07'W at or below 11,000' MSL; then turn left descending to 45°37'N, 91°10'W; then continue descent direct so as to cross 45°44'N, 91°20'W, the low level entry point, at 2,900' MSL; then at 2,900' MSL direct 46°10'N, 91°56'W; then turn left descending so as to cross 46°12'N, 92°02'W at 2,700' MSL; then at 2,700' MSL direct to 46°16'30"N, 92°56'W; then at 2,700' MSL direct to 46°00'N, 93°35'30"W then climb so as to cross 45°57'N, 93°42'W at 3,000' MSL.



LAKE SUPERIOR
(OB-39) BALL GAME ENTRY POINT 45°44' 91°20'
ALTERNATE ENTRY POINT 46°08'00" 93°15'30"
SHORT LOOK & LAY DOWN 3000' TO 4000'
EXIT POINT 46°13' 97°13'
Hibbing (HIB)
Duluth (DLH)
Grantsburg (GTG)
Eau Claire (EAU)
Minneapolis (MSP)
Brainerd (BRD)
Alexandria (Minn) (AXN)
Darwin (DWN)
Farmington (Minn) (FGT)
Redwood Falls (RWF)
Mankato (Minn) (MKT)
Park Rapids State (PKD)
Fargo (FAR)
Watertown (ATY)
Aberdeen (ABR)
Jamestown (JMS)
Huron (HON)
V129
V35
V26
V191
V430
V217
V55
V78
82 NM
V2
V97
V171
V161
V82
V181
V24
V15
V120
V13
V181A
V2 76 NM
2000
2700
2900
23 JUN 1966

Short Look and Lay Down—After passing 45°57'N, 93°42'W, aircraft shall operate between 3,000' MSL and 4,000' MSL through the bomb run corridor (4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N, 95°10'W). After exiting the bomb run corridor at 45°25'W, 95°10'W, aircraft shall descend direct so as to cross 45°31'N, 95°36'W at 2,700' MSL; then at 2,700' MSL direct 46°13'N, 97°13'W. After exiting the route at 46°13'N, 97°13'W, aircraft shall start climb so as to cross 46°39'N, 98°12'W at FL 200 or above; then climb direct so as to cross Fargo, N.D. VORTAC DME 266/76 fix (Jamestown, N.D. VOR) at FL 250.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 8000' above the immediate terrain between the following points: From 45°44'N, 91°20'W to 46°00'N, 93°35'30"W and from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Alternate Entry—Aircraft shall cross the Minneapolis VORTAC 032/48 DME fix (Grantsburg, Wisc. VOR) at FL 230 or as assigned by ARTCC, then descend so as to cross 46°00'N, 92°47'30"W at 17,000' MSL or above; then continue descent direct so as to cross 46°08'N, 92°51'30"W at 13,000' MSL or above; then turn left continuing descent so as to cross 46°12'N, 93°06'W at 7,000' MSL; then continue descent so as to cross 46°08'N, 93°15'30"W at 2,700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM on the northeast side of centerline from 45°44'N, 91°20'W to 46°10'N, 91°56'W and 4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N 95°10'W and 4 NM on the north side of centerline from 45°25'N, 95°10'W to 45°31'N, 95°36'W. The VFR route width is reduced to 2 NM on the northeast side of centerline from 46°08'N, 93°15'30"W to 46°00'N, 93°35'30"W and to 2 NM on the north side of centerline from 45°25'N, 95°10'W to 45°35'N, 95°45'W and to 2 NM on the south side of centerline from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Hours of Operation—24 hours daily, 7 days a week.

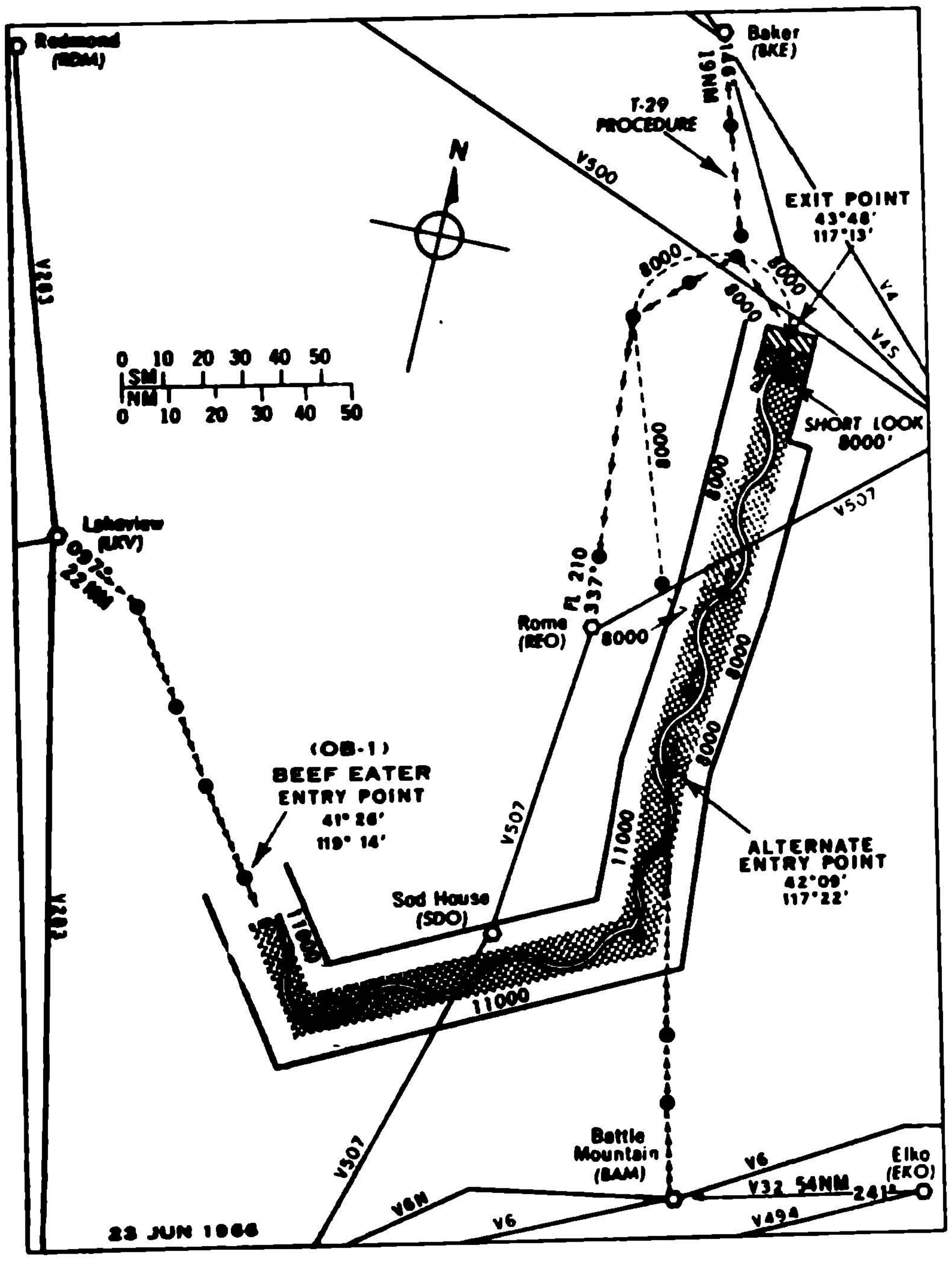
NEVADA/OREGON

BEEF EATER OB-1

Revised Effective June 19, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°-

20'N, 120°04'W); then descend direct to cross 42°00'N, 119°45'W at or below FL 230; then descend direct so as to cross 41°44'N, 119°31'W at or above 16,000' MSL; then descend direct so as to cross the entry point of the low level route at 41°26'N, 119°14'W at 11,000' MSL; then at 11,000' MSL direct to 40°58'N, 118°49'W, then 11,000' MSL direct 41°31'N, 117°20'W, 11,000' MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40' N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 210, then maintain FL 210 via the Rome, Oregon 337 radial to the Rome, Oregon VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°17'N, 119°06'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W then descend direct so as to cross 41°10'N, 117°05'W at or above 12,000' MSL; then descend direct so as to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 3 NM on the west side of centerline from 41°17'N, 119°06'W to 40°58'N, 118°49'W and to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T-29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N. 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

BOTTLE TOP OB-2

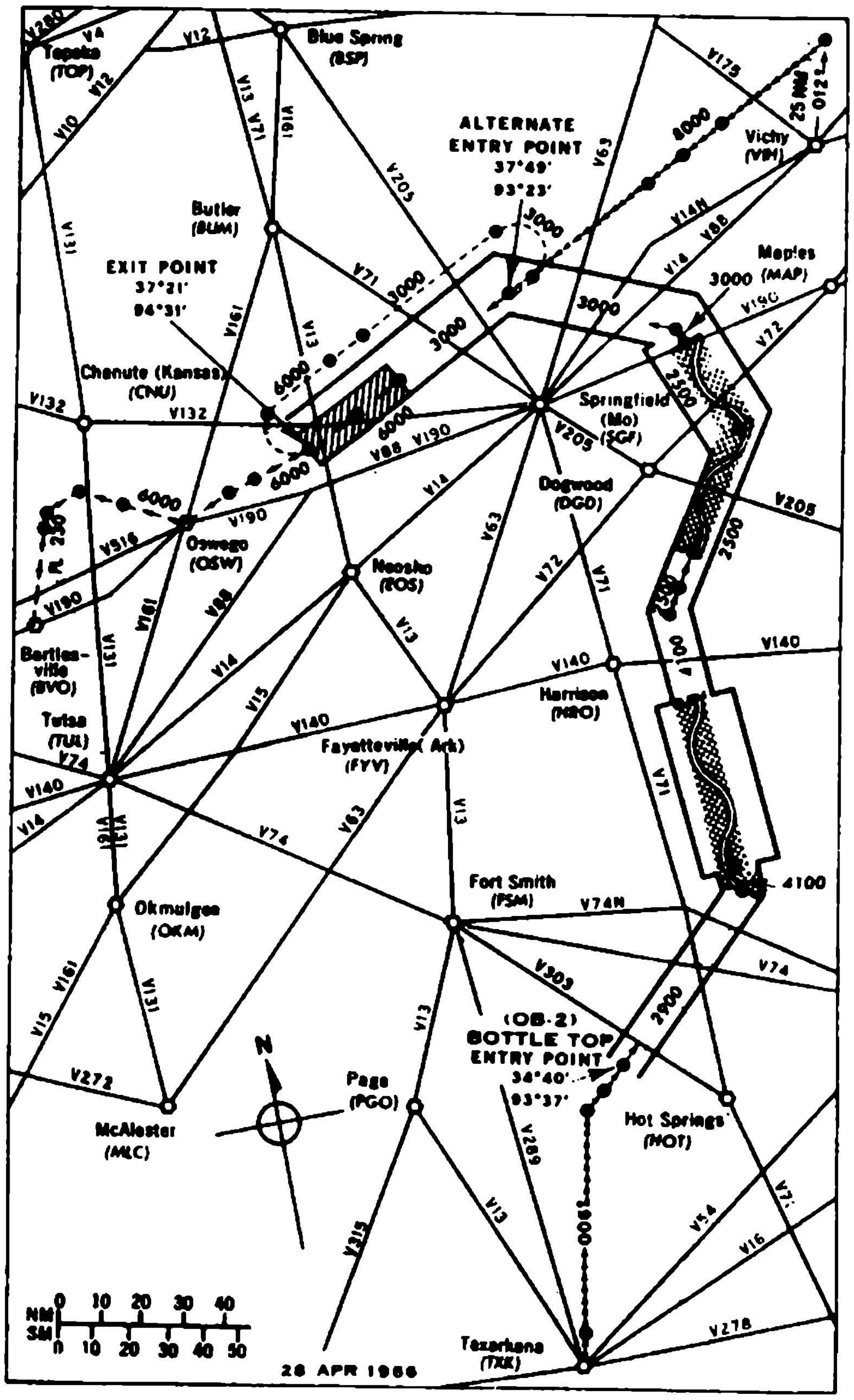
Revised Effective April 24, 1966

Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°31'W, maintain 6000' MSL, turn right to 37°32'N, 94°41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30''N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate


Topeka (TOP)
Blue Springs (BSP)
ALTERNATE ENTRY POINT 37°49' 93°23'
Vichy (VIH)
25 NM 012
Butler (BUM)
EXIT POINT 37°21' 94°31'
Maples (MAP)
Chenute (Kansas) (CNU)
Springfield (Mo) (SGF)
Dogwood (DGD)
Oswego (OSW)
Neosho (EOS)
Bartlesville (BVO)
Tulsa (TUL)
Harrison (HRO)
Fayetteville (Ark) (FYV)
Fort Smith (FSM)
Okmulgee (OKM)
(OB-2) BOTTLE TOP ENTRY POINT 34°40' 93°37'
N
Page (PGO)
McAlester (MLC)
Hot Springs (HOT)
NM 0 10 20 30 40
SM 0 10 20 30 40 50
Texarkana (TXK)
28 APR 1966

VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 35°17′N, 92°51′W to 36°05′N, 92°53′W and from 36°38′N, 92°45′W to 37°30′N, 92°34′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000′ MSL or as assigned by ARTCC. Descend direct so as to cross 38°19′N, 92°08′W at 8000′ MSL; then at 8000′ MSL direct to 38°13′N, 92°22′W; then descend so as to cross 38°08′N, 92°34″W at 4000′ MSL; then continue descent so as to cross 37°49′N, 93°23′W at 3000′ MSL. Thence via published route.

Route Width—The IFR route width from 34°40′N, 93°37′W to 35°21′N, 92°51′W and from 36°05′N, 92°53′W to 37°06′N, 92°23′W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33′N, 92°35′W to 37°21′N, 94°31′W. The VFR route width from 35°21′N, 92°51′W to 36°05′N, 92°53′W and from 36°38′N, 92°45′W to 37°06′N, 92°23′W is reduced to 2 NM on the east side of centerline.

Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

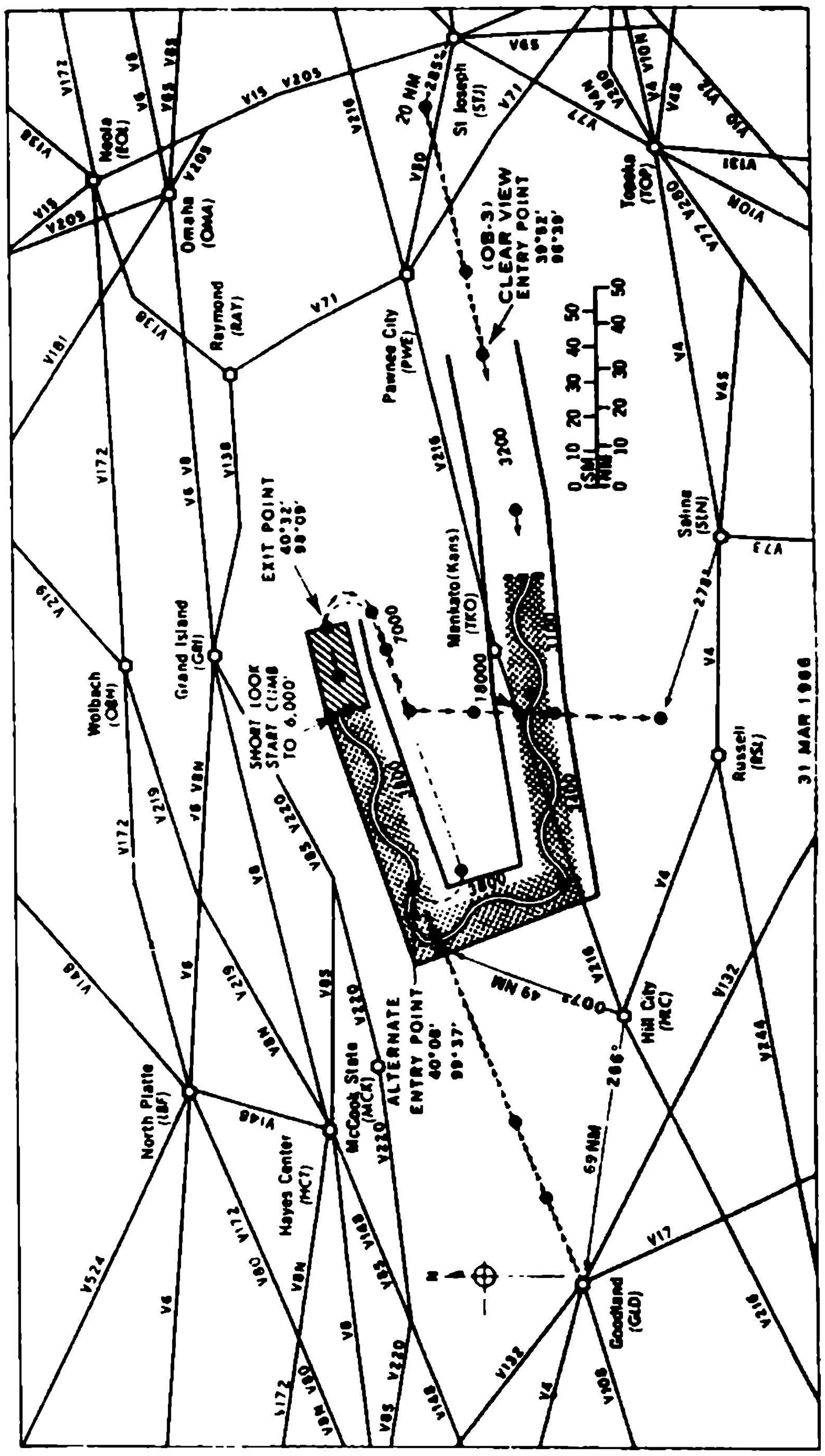
KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB–3

Revised Effective March 27, 1966

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56′N, 96°12′W crossing this point at 9000′ MSL, descend to 3200′ MSL direct to the route entry point at 39°52′N, 96°39′W, maintain 3200′ MSL direct 39°43′N, 97°30′W, descend to 3100′ MSL direct 39°40′N, 98°30′W, climb to 3400′ MSL direct 39°31′N, 99°34′W, climb to 3800′ MSL direct 40°03′N, 99°50′W maintain 3800′ MSL direct 40°26′N, 98°37′W.

Short Look—After passing 40°26′N, 98°37′W, proceed direct to 40°29′N, 98°27′W climbing so as to cross this point at 6000′ MSL; maintain 6000′ MSL through the bomb run corridor (4 NM either side centerline from 40°26′N, 98°37′W to 40°32′N, 98°09′W); after exiting the route at 40°32′N, 98°09′W, turn right climbing to


Neola (RDX)
Omaha (OMA)
20 NM 285°
St Joseph (STJ)
Topeka (TOP)
(OB-3) CLEAR VIEW ENTRY POINT 39°52' 96°39'
Raymond (RAY)
Pawnee City (PWE)
NM 0 10 20 30 40 50
SM 0 10 20 30 40 50
EXIT POINT 40°32' 98°09'
Mankato (Kans) (TKO)
Salina (SLN)
Wolbach (OBH)
Grand Island (GRI)
SHORT LOOK START CLIMB TO 6,000'
Russell (RSL)
31 MAR 1966
North Platte (LBF)
McCook State (MCK)
Hayes Center (HCT)
ALTERNATE ENTRY POINT 40°08' 99°37'
69 NM
Hill City (HLC)
Goodland (GLD)

cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.

Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

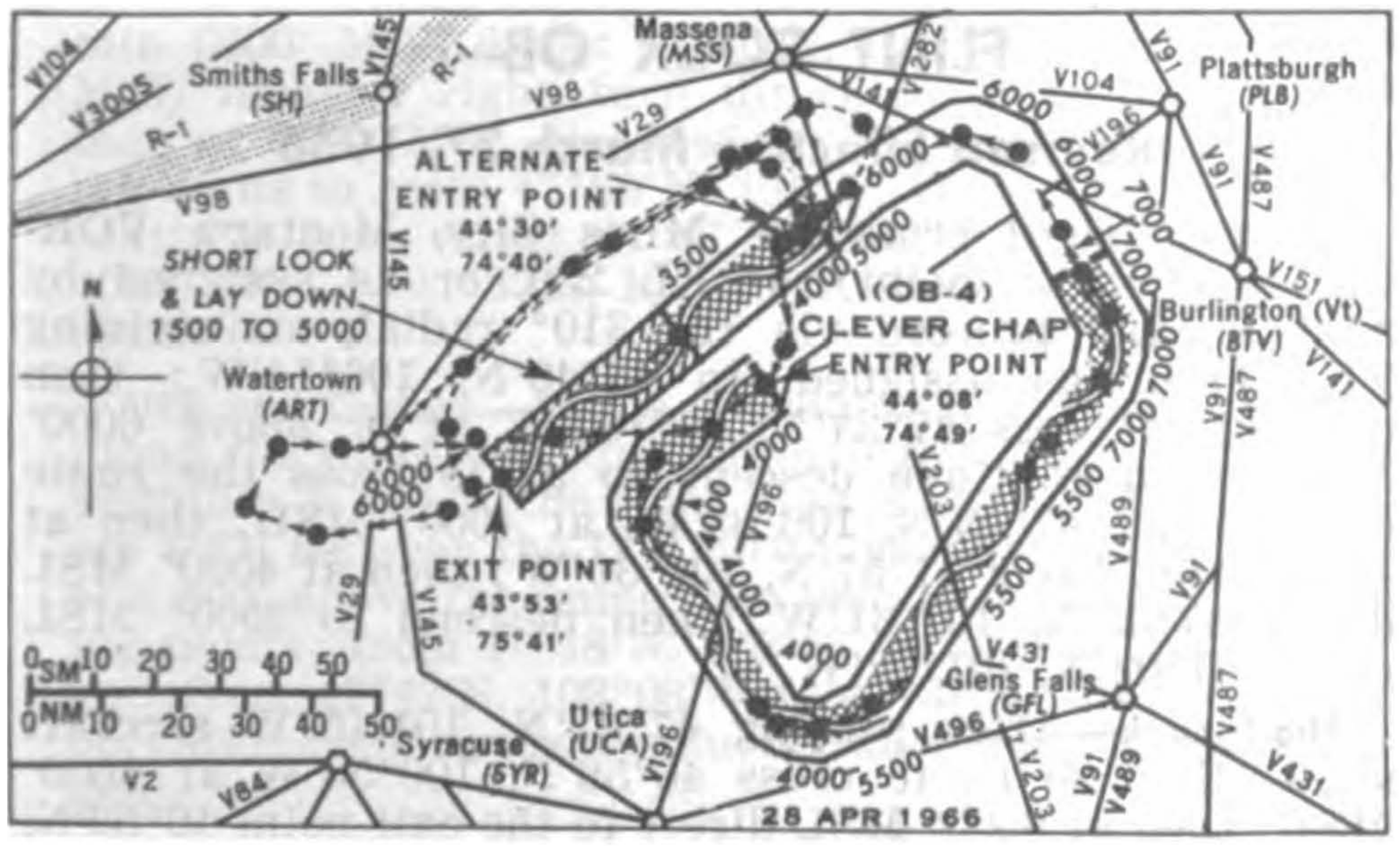
Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

CLEVER CHAP OB-4

Revised Effective February 27, 1966

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below: cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13'N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17'N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W: climb to cross 43°59'N, 73°51'W at 7,000 feet MSL: maintain 7,000 feet MSL direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL; cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.



Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43'N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at FL 180; cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

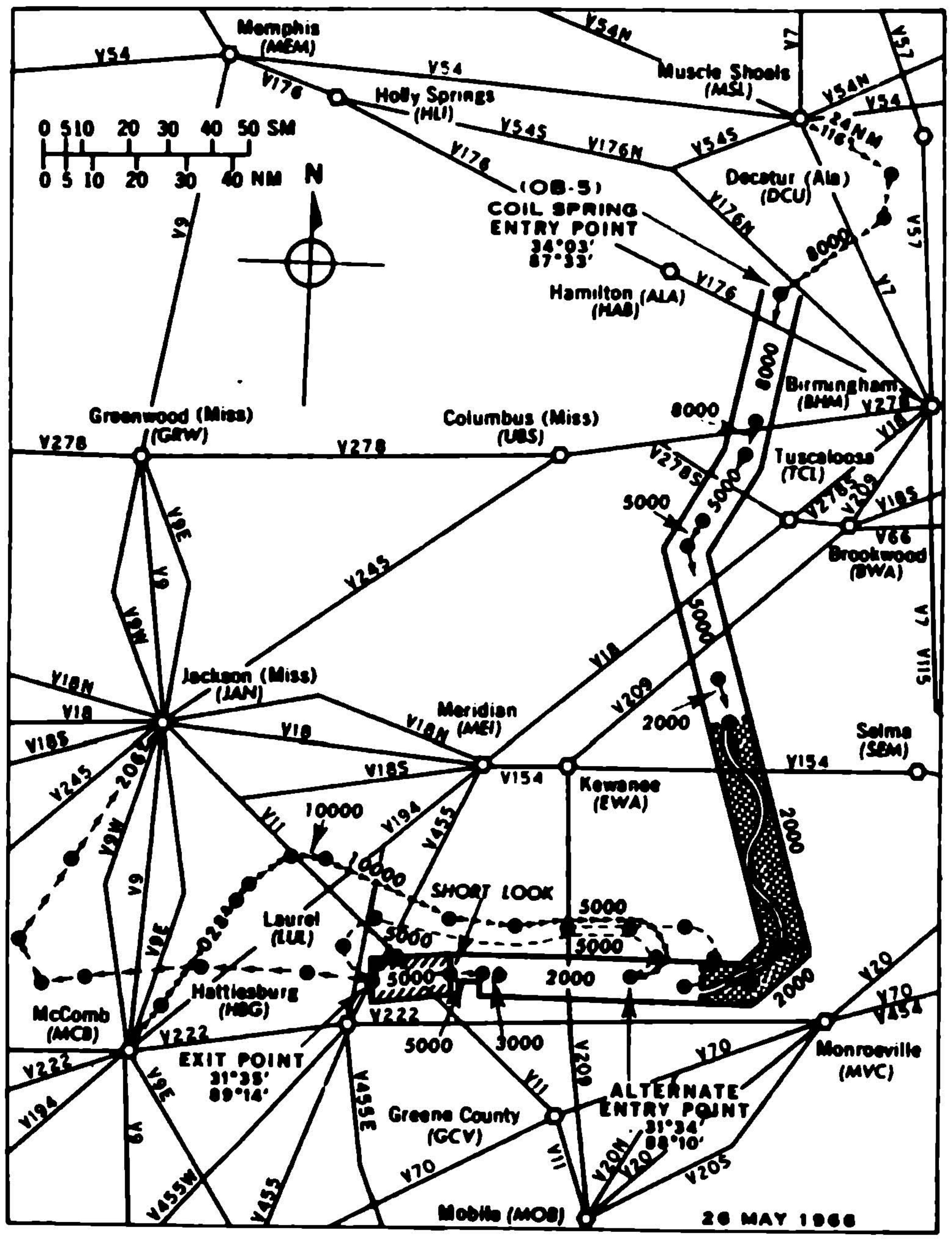
Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48'N, 75°12'W to 44°16'N, 73°39'W 2 NM either side of center line.

Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB-5

Revised Effective January 6, 1966



Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000′ MSL; turn right, descend to cross 34°19′N, 87°06′W at 8000′ MSL, maintain 8000′ MSL direct to the route entry point at 34°03′N, 87°33′W, direct 33°-35′N, 87°38′W, direct 33°28′N, 87°42′W; descend direct to cross 33°15′N, 87°52′W at 5000′ MSL, maintain 5000′ MSL direct 33°10′N, 87°56′W, direct 32°40′N, 87°48′W; descend to cross 32°31′N, 87°45′W at 2000′ MSL, maintain 2000′ MSL direct 31°41′N, 87°31′W, turn right to 31°33′N, 87°40′W, maintain 2000′ MSL direct 31°36′N, 88°42′W; climb direct to cross 31°36′N, 88°46′W at 3000′ MSL, direct to cross 31°36′N, 88°54′30″W at 5000′ MSL. In addition to the above, aircraft may climb to 3000′ MSL after 31°33′N, 87°40′W and maintain 3000′ MSL to 31°36′N, 88°54′30″ during the hours 0600Z–1200Z.

Short Look—After passing 31°36′N, 88°54′30″W aircraft shall operate through the bomb run corridor at 5000′ MSL. In addition, aircraft may operate through the bomb run corridor at 3000′ MSL during the hours 0600Z–1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36′N, 88°54′30″W to 31°35′N, 89°14′ W.) After exiting the route at 31°35′N, 89°14′W, aircraft shall cross 31°36′N, 89°30′W at 5000′ MSL; start climb direct to cross 31°37′N, 89°56′W at 14,000′ MSL (reporting point), maintain 14,000′ MSL direct 31°33′N, 90°25′W; start climb direct 31°32′N, 90°36′W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42′N, 90°44′W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55′N, 90°35′W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35′N, 89°14′W, turn right, cross 31°42′N, 89°22′W at 5000′ MSL, maintain 5000′ MSL, turn right to 31°49′N, 89°-14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W; turn right, cross 31°40′N, 88°03′W at 3000′ MSL; continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route. Aircraft may proceed at 5000′ MSL from 31°48′N, 88°27′W; direct 31°48′N, 87°57′W; turn right descend to cross 31°41′N, 87°49′W at 3000′ MSL; continue turn to cross 31°34′N, 87°57′W at 2000′ MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 32°31′N, 87°45′W to 31°33′N, 87°52′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18′15″N, 90°15′29″W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000′ MSL; cross 45 NM fix at 14,000′ MSL; turn right, cross 32°01′N, 89°35′W at 10,000′ MSL, maintain 10,000′ MSL, turn right, 32°01′N, 89°27′W, direct 31°49′N, 88°55′W; descend direct, cross 31°48′N, 88°39′W at 6000′ MSL; direct, cross 31°48′N, 88°27′W at 5000′ MSL, maintain 5000′ MSL direct 31°48′N, 88°10′W; turn right cross 31°40′N, 88°03′W at 3000′ MSL continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36′N, 88°46′W to 31°36′N, 88°54′30″W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

FLINT ROCK OB-7

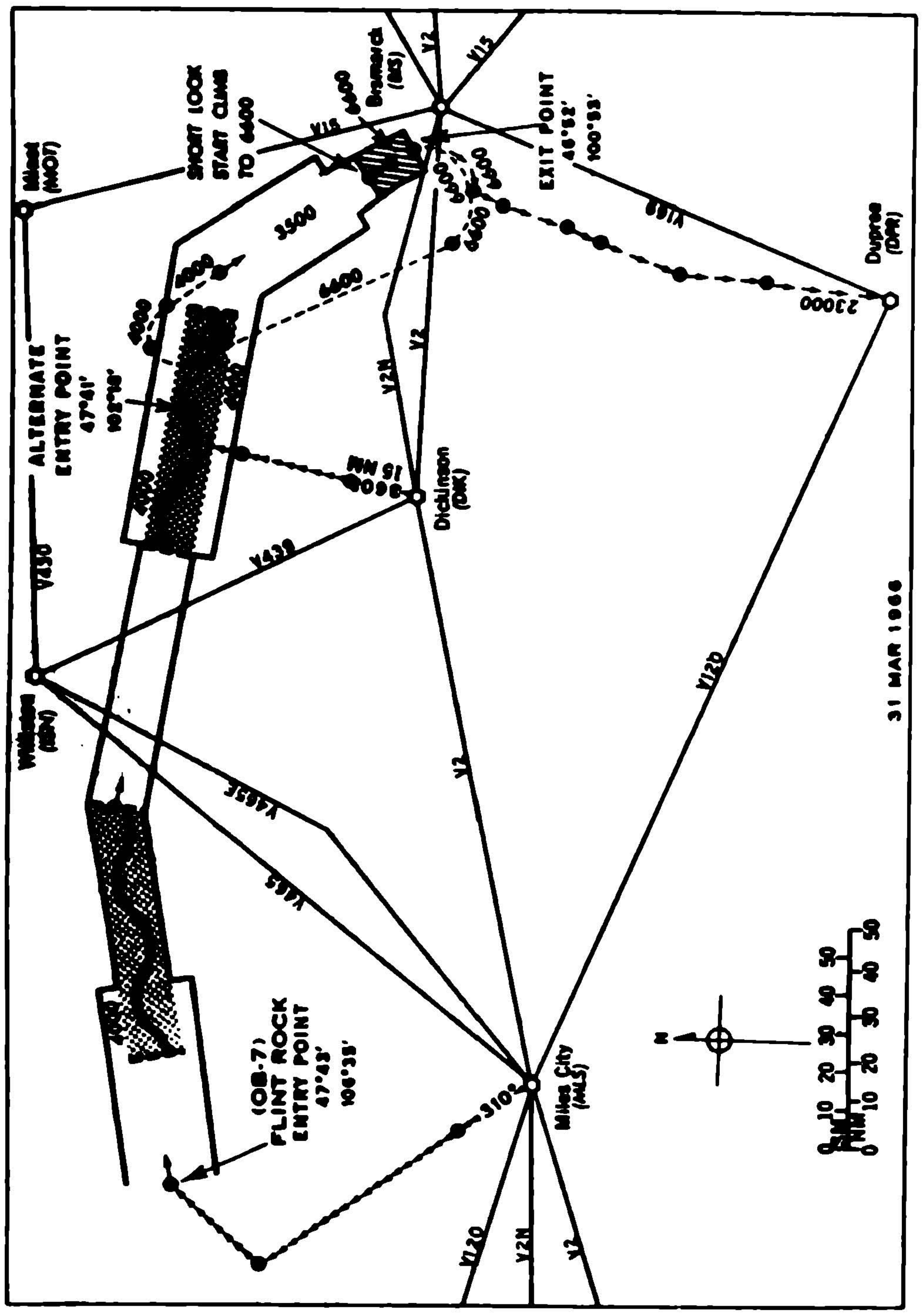
Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40′N, 106°14′W; then descend to cross 47°24′N, 107°00′W at or above 6000′ MSL; then continue descent so as to cross the route entry point, 47°43′N, 106°35′W, at 4000′ MSL; then at 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MSL direct 47°35′N, 101°31′W; then descend to 3500′ MSL direct 47°02′N, 101°02′W.

Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 4 NM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53′W); then maintaining 6600′ MSL turn right direct 46°39′N, 101°07′W; then start climb to FL 230 direct to 45°53′N, 101°35′W; direct to Dupree VORTAC, climbing so as to cross 46°30′N, 101°12′30″W at or above 8,000′ MSL; crossing 46°19′N, 101°19′W at or above

11,000' MSL; crossing 46°13'N, 101°23'W at or below FL 190; crossing 45°53'N, 101°35'W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52'N, 100°53'W maintain 6600' MSL direct 46°39'N, 101°07'W; then at 6600' MSL make a right turn direct to 46°43'N, 101°24'W; then at 6600' MSL direct 47°40'N, 102°00'W the descending so as to cross 47°50'N, 101°56'W at 4000' MSL; then continue turn direct 47°47'N, 101°42'W; then direct at 4000' MSL to 47°35'N, 101°31'W, thence via the published route.


SHORT LOOK START CLIMB TO 6600
Bismarck (BIS)
Minot (MOT)
EXIT POINT 46°52' 100°53'
Dupree (DPR)
ALTERNATE ENTRY POINT 47°41' 102°18'
Dickinson (DIK)
Williston (ISN)
(OB-7) FLINT ROCK ENTRY POINT 47°43' 106°25'
Miles City (MLS)
31 MAR 1966
V2
V15
V2N
V120
V430
V439
3500
6600
4000
22000
SM
NM
0 10 20 30 40 50

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 47°48'N, 105°53'W to 47°57'N, 104°30'W and from 47°47'N, 103°08'W to 47°37'N, 101°45'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000' MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000' MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31'N, 102°32'W at 8,000' MSL; then descend direct so as to cross 47°42'30''N, 102°27'W at 6,000' MSL; then a descending right turn so as to cross 47°41'N, 102°18'W at 4000' MSL, thence via the published route.

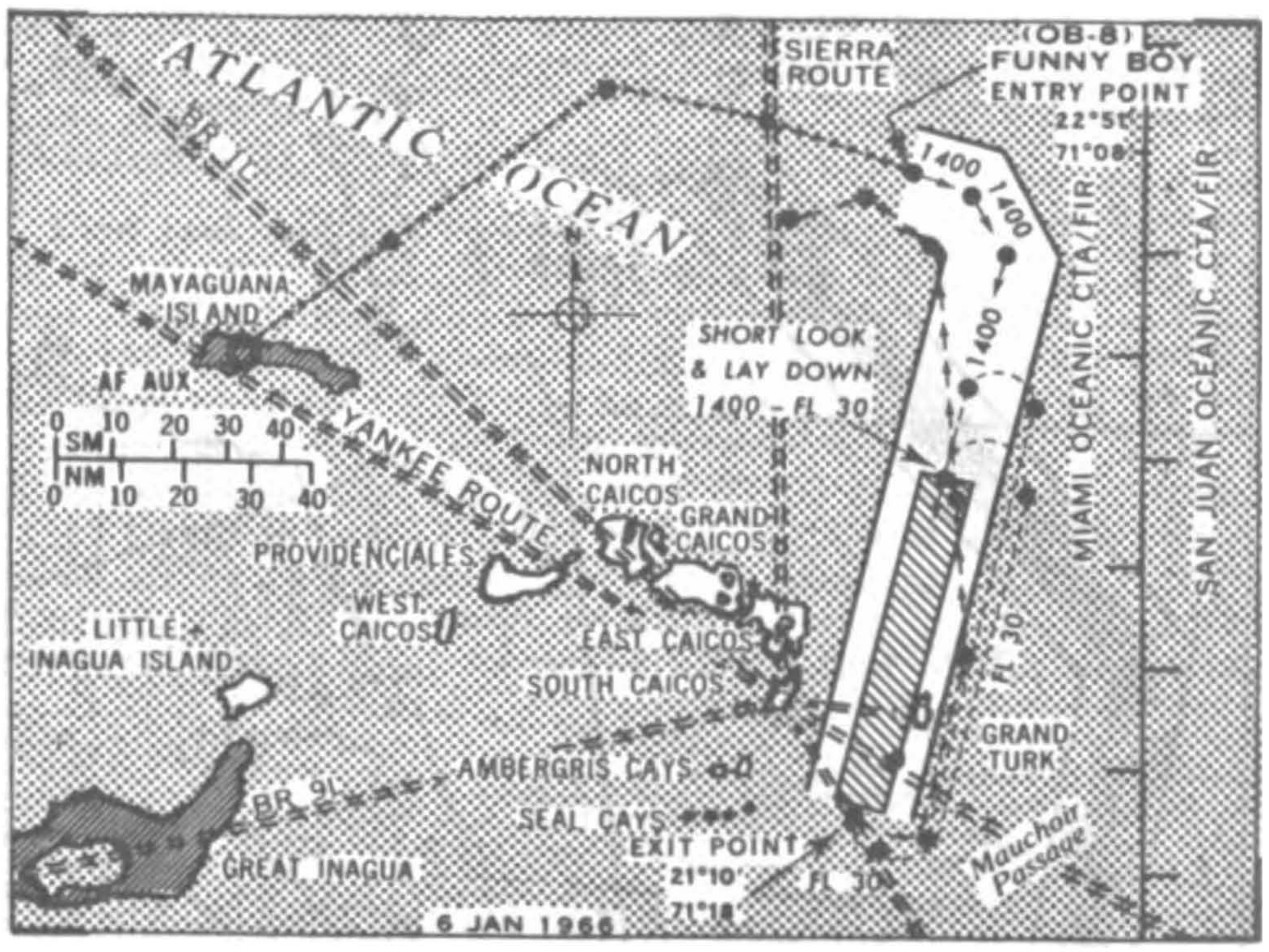
Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50'N, 105°30'W to 47°47'N, 103°03'W and from 47°07'N, 101°06'W to 46°52'N, 100°53'W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY OB-8

Revised Effective February 6, 1966

Aircraft shall cross 22°23'N, 73°02'W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41'N, 72°35'W (reporting point); start descent, cross 23°05'N, 72°00'W at FL 150; right turn, cross 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 71°08'W at 1400' MSL (the route entry point); maintain 1400' MSL direct 22°48'N, 70°58'W; turn right to 22°39'N, 70°53'W; direct 22°04'N, 71°08'W.


ATLANTIC
OCEAN
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°55' 71°08'
MAYAGUANA ISLAND
AF AUX
SHORT LOOK & LAY DOWN 1400 - FL 30
1400
FL 30
SM
NM
0 10 20 30 40
YANKEE ROUTE
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
EAST CAICOS
SOUTH CAICOS
LITTLE INAGUA ISLAND
AMBERGRIS CAYS
SEAL CAYS
EXIT POINT 21°10' 71°18'
GREAT INAGUA
GRAND TURK
Mouchoir Passage
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR
6 JAN 1966

Short Look and Lay Down—After passing 22°04'N, 71°08'W, aircraft shall maintain between 1400' and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04'N, 71°03'W to 21°10'N, 71°18'W). After exiting the route at 21°10'N, 71°18'W, aircraft shall turn left, cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W, direct 21°35'N, 71°00'W; start climb, cross 22°00'N, 71°02'W at FL 110 or above cross 22°40'N, 71°06'W at FL 250 or above; left turn to 22°48'N, 71°16'W; cross 22°45'N, 71°30'W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10'N, 71°18'W, turn left cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W; direct 22°01'N, 70°53'W; turn left descend to cross 22°04'N, 71°08'W at 1400'; thence via the published route. Aircraft may proceed at FL 30 from 21°06'N, 71°08'W; direct 22°14'N, 70°49'W; turn left descend to cross 22°17'N, 70°59'W at 1400'; thence via the published route.

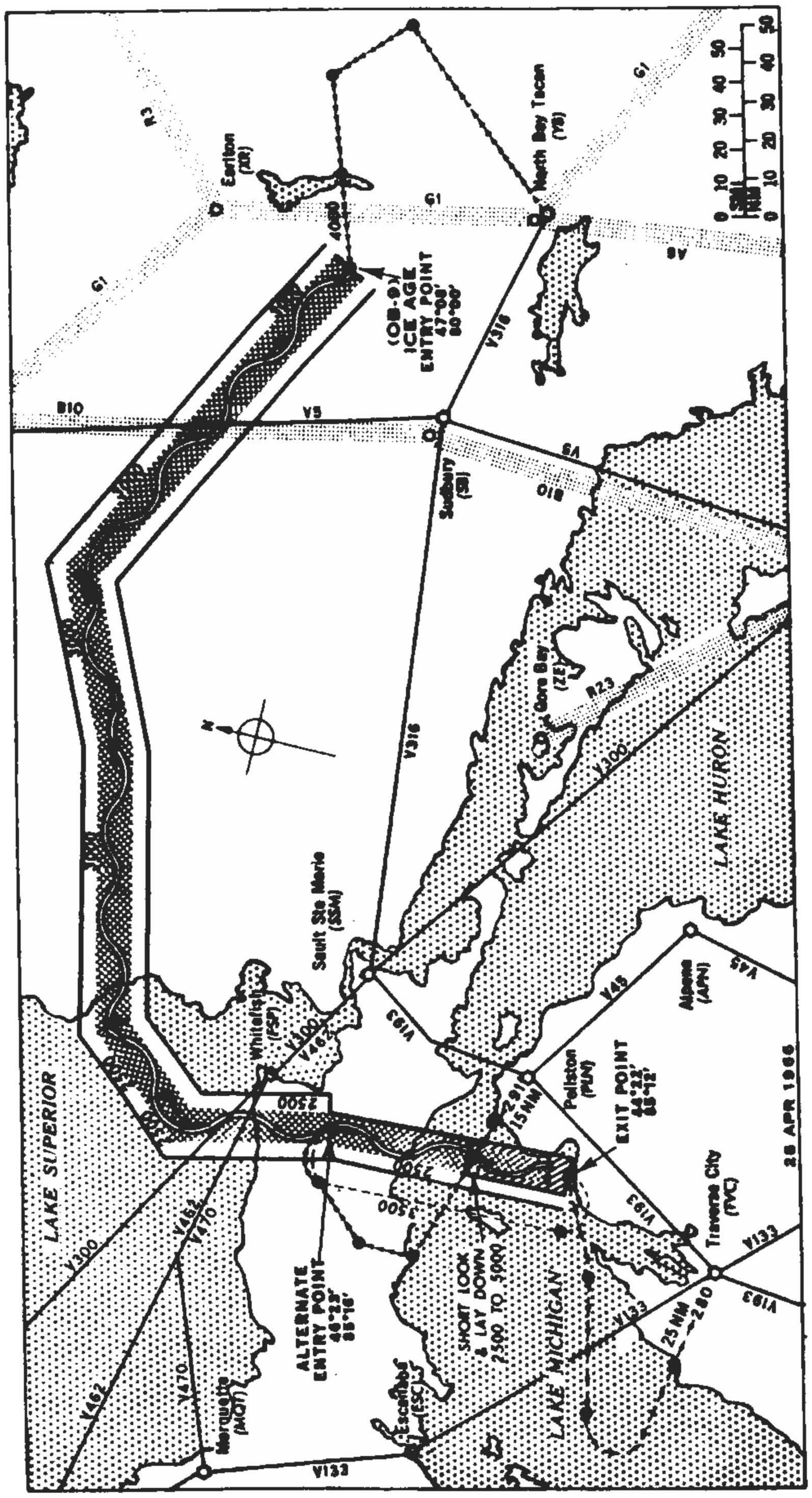
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB-9

Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000' MSL direct 47°04'N, 78°25'W, descend to 10,000' MSL direct to 47°22'N, 78°49'W, descend to 4000' MSL direct to 47°15'N, 79°25'W, maintain 4000' MSL direct to low level entry point at 47°08'N, 80°00'W (aircraft shall maintain an altitude below 3500' AGL on the low level route while in Canadian airspace), descend so as to cross 47°22'N, 80°35'W at 3000' MSL, then maintain 3000' MSL direct 47°58'N, 82°15'W, then at 3000' MSL direct to 47°40'N, 83°16'W, then at 3000' MSL direct 47°23'N, 85°00'W, then descend direct 47°06'N, 85°22'W at 2500' MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06'N, 85°22'W at 2500' MSL, direct 47°00'N, 85°30'W at 2500' MSL, direct 46°23'N, 85°16'W at 2500' MSL, direct 45°48'N, 85°15'W at 2500' MSL.


R3
Earlton (XR)
G1
4000
North Bay Tacan (YB)
G1
0 10 20 30 40 50
0 10 20 30 40 50
G1
9V
(OB-9) ICE AGE ENTRY POINT 47°08' 80°00'
V316
B10
V5
Sudbury (SB)
6A
01B
Gore Bay (ZE)
R23
V300
V316
LAKE HURON
Sault Ste Marie (SSM)
Whitefish (FSP)
V300
V462
V193
V45
Alpena (APN)
2500
2.91 15 NM
Pellston (PLN)
EXIT POINT 45°22' 85°12'
28 APR 1966
LAKE SUPERIOR
V300
V462
V470
2500
3500
ALTERNATE ENTRY POINT 46°23' 85°16'
SHORT LOOK & LAY DOWN 2500 TO 5000
V193
Traverse City (TVC)
V133
V193
V133
280
25 NM
V470
V462
Marquette (MQT)
Escanaba (ESC)
LAKE MICHIGAN
V133

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W turn right climbing so as to cross 45°21'N, 85°32'W at 3,500' MSL, then at 3,500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°08'N, 80°00'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

LITTLE SATIN OB-10

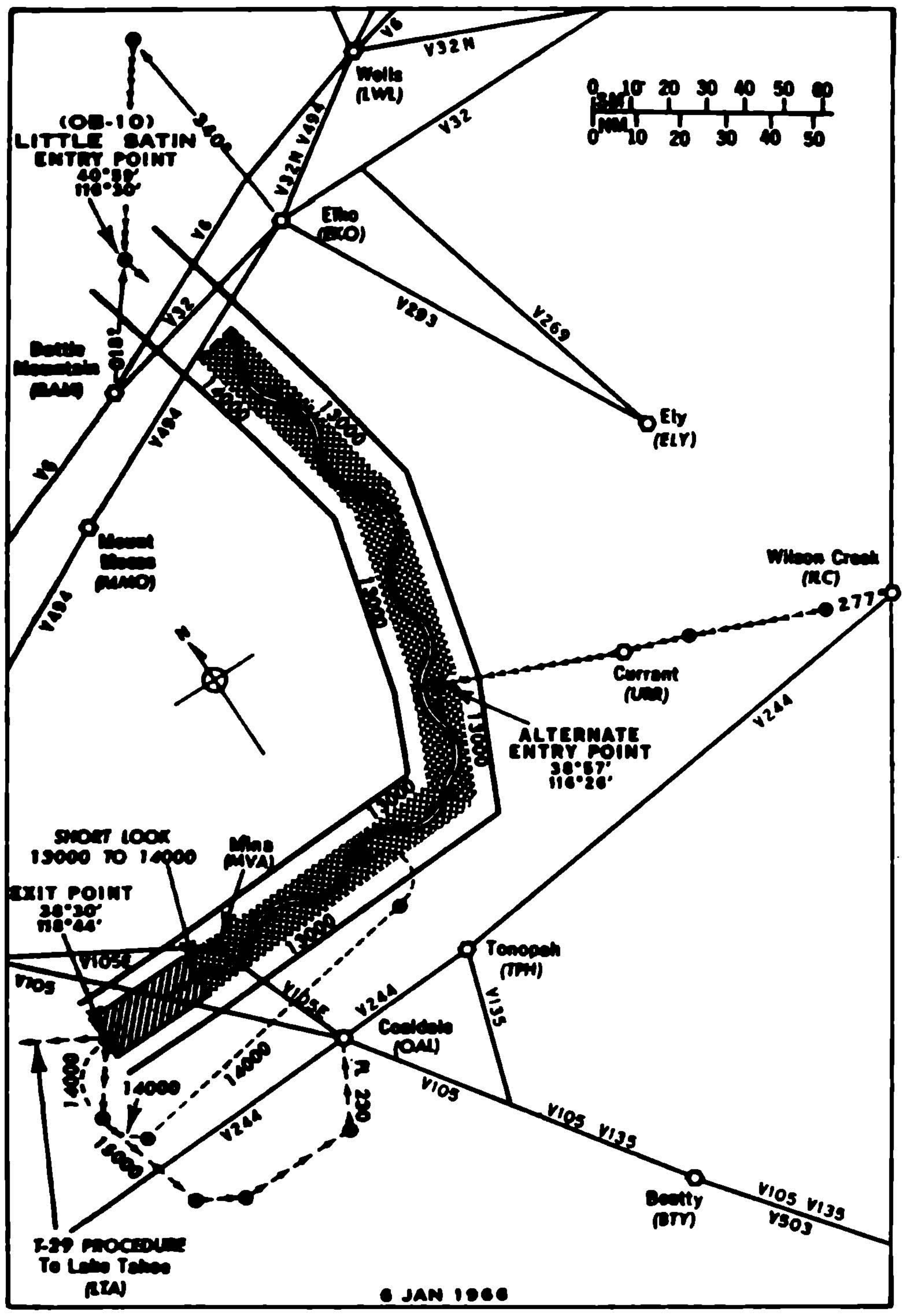
Revised Effective January 2, 1966

Aircraft shall cross 41°40'N, 115°49'W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59'N, 116°30'W (Battle Mountain VOR 018°/31) at 14,000' MSL, then 14,000' MSL direct 40°10'N, 116°17'W; then descend to 13,000' MSL direct 39°42'N, 116°10'W, then 13,000' MSL direct 38°57'N, 116°26'W, then 13,000' MSL direct 38°34'N, 116°40'W, then 13,000' MSL direct 38°31'N, 118°12'W.

Short Look—After passing 38°31'N, 118°12'W aircraft shall operate between a maximum altitude of 14,000' MSL and a minimum of 13,000' MSL thru the bomb run corridor (4 NM either side of centerline from 38°31'N, 118°12' W to 38°30' N, 118°44' W). After exiting the route at 38°30'N, 118°44'W aircraft shall start climb to cross 38°15'N, 118°57'W at 15,000' MSL; then maintain 15,000' MSL direct 37°48'N, 118°48'W; then climb so as to cross 37°42'N, 118°36'W at or above 17,000' MSL;

then climb direct to cross 37°42'N, 118°00'W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30'N, 118°44'W, maintain 14,000' MSL direct 38°15'N, 118°57'W, then 14,000' direct 38°06'N, 118°50'W direct 38°19'N, 117°12'W; then descend direct to cross 38°33'N, 117°12'W at 13,000' MSL; thence via the published route.


(OB-10)
LITTLE SATIN
ENTRY POINT
40°39'
116°30'
Wells
(LWL)
V32N
V6
V32
V32N V494
0 10 20 30 40 50 60
SM
NM
0 10 20 30 40 50
Elko
(EKO)
V293
V269
Ely
(ELY)
Battle
Mountain
(BAM)
V494
V6
Mount
Moses
(MMO)
13000
14000
Wilson Creek
(ILC)
277°
Current
(UMR)
ALTERNATE
ENTRY POINT
38°57'
116°26'
V244
SHORT LOOK
13000 TO 14000
Mina
(MVA)
EXIT POINT
38°30'
118°44'
V105E
V105
Tonopah
(TPH)
V135
Coaldale
(OAL)
14000
V244
V105 V135
Beatty
(BTY)
V105 V135
V503
T-29 PROCEDURE
To Lake Tahoe
(LTA)
6 JAN 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 40°30'N, 116°22'W to 38°31'N, 118°12'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21'N, 114°41'W); then descend direct to cross 38°34'N, 115°18'W at or below 15,000' MSL; then descend direct via the Currant, Nev. VOR to cross 38°57'N, 116°26'W at 13,000' MSL, thence via the published route.

T–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15'N, 114°23'W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30'N, 118°44'W exit point of the bomb run corridor; then climb to 14,000' MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11' N, 120°16'W).

Hours of Operation—24 hours daily, 7 days a week.

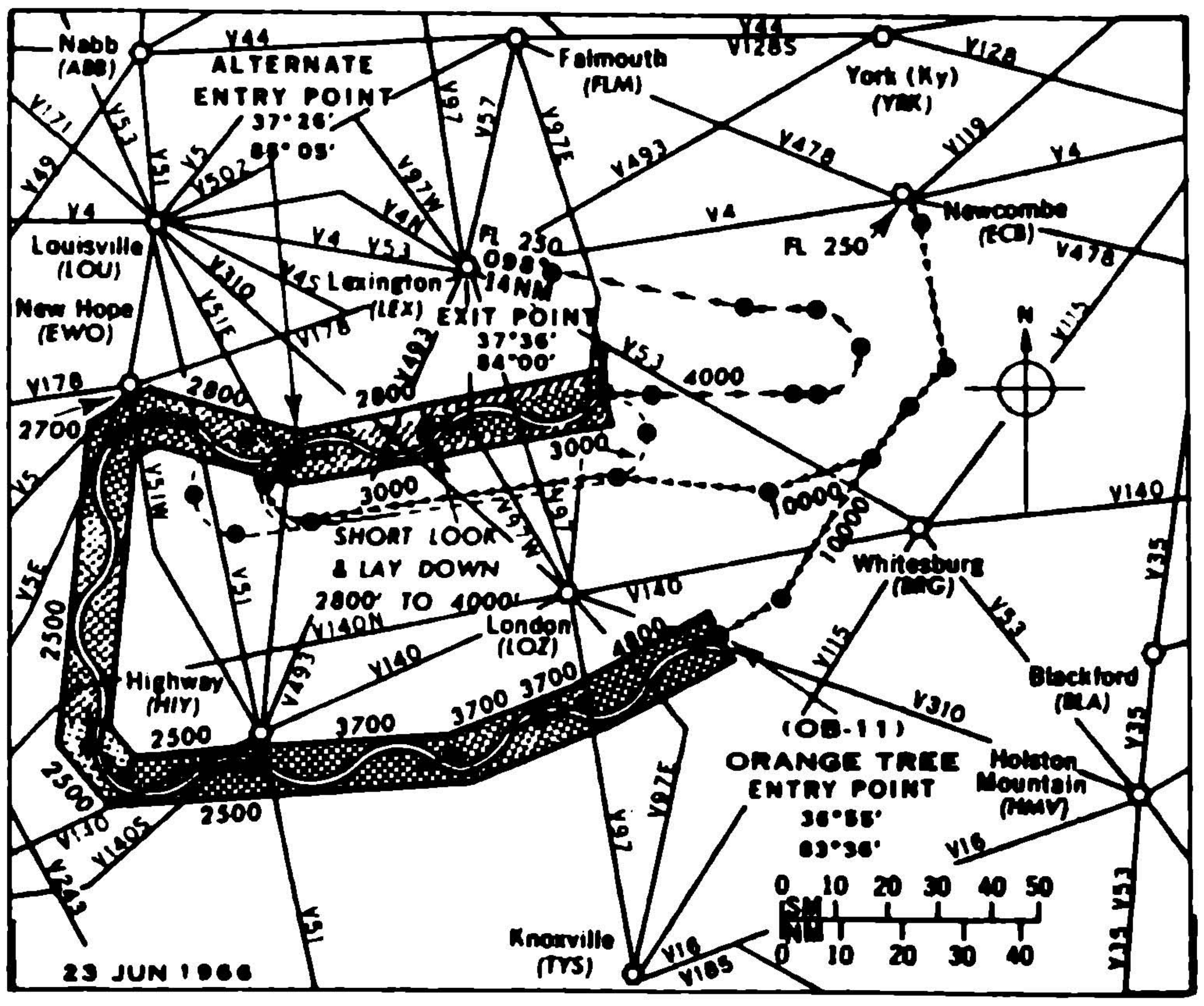
KENTUCKY/TENNESSEE

ORANGE TREE OB–11

Revised Effective June 19, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05'N, 82°53'W; then start descending to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01'N, 83°24'W; then start descent so as to cross route entry at 36°55'N, 83°36'W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45' N, 84°01'W; then descend so as to cross 36°41'N, 84°14' W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°–35'N, 84°32'W; direct 36°32'N, 85°15'W; descend so as to cross 36°32'N. 85°21'W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31'N, 85°40'W; then turn right to 36°36'N, 85°49'W; direct 37°28'N, 85°44'W; then turn right climb to cross 37°32'N, 85°35'W at 2800' MSL; then at 2800' MSL direct 37°26'N, 85°05'W; then at 2800 feet MSL direct 37°30'N, 84°38'W.

Short Look and Lay Down—After passing 37°30'N, 84°38' W aircraft shall maintain between 2800' and 4000'. feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30'N, 84°38'W to 37°36'N, 84°00'W). After exiting the route at 37°36'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36'N, 83°20'W; then start climb direct 37°36'N, 83°15'W; cross 37° 44'N, 83°-05'W at or below 9,000 feet MSL; continue climb direct 37°50'N, 83°15'W; then climbing direct so as to cross 37°51'N, 83°30'W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.


Nabb
(ABB)
V44
ALTERNATE
ENTRY POINT
37°26'
85°05'
Falmouth
(FLM)
V44
V128S
York (Ky)
(YRK)
V128
V171
V53
V51
V5
V502
V97
V57
V97E
V97W
V493
V478
V119
V4
V49
Louisville
(LOU)
V4
V4N
V4 V53
V45
Lexington
(LEX)
FL 250
098°
14NM
EXIT POINT
37°36'
84°00'
Newcombe
(ECB)
FL 250
V478
New Hope
(EWO)
V310
V51E
V178
V178
2700
2800
2800
V53
4000
N
3000
3000
10000
10000
V140
V5
V51W
SHORT LOOK
& LAY DOWN
2800' TO 4000'
V140N
V140
London
(LOZ)
Whitesburg
(BRG)
V5E
2500
Highway
(HIY)
2500
V140
3700
3700 3700
4800
V115
V53
Blackford
(BLA)
V310
(OB-11)
ORANGE TREE
ENTRY POINT
36°55'
83°36'
Holston
Mountain
(HMV)
2500
2500
V51
V97E
V97
V16
V185
Knoxville
(TYS)
0 10 20 30 40 50
SM
NM
0 10 20 30 40
V35
V35 V53
23 JUN 1966

the Lexington VORTAC 098 radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb

run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3,000 feet MSL continue right turn to 37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28'N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53'W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3,00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800' MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

Hours of Operation—24 hours daily, 7 days per week.

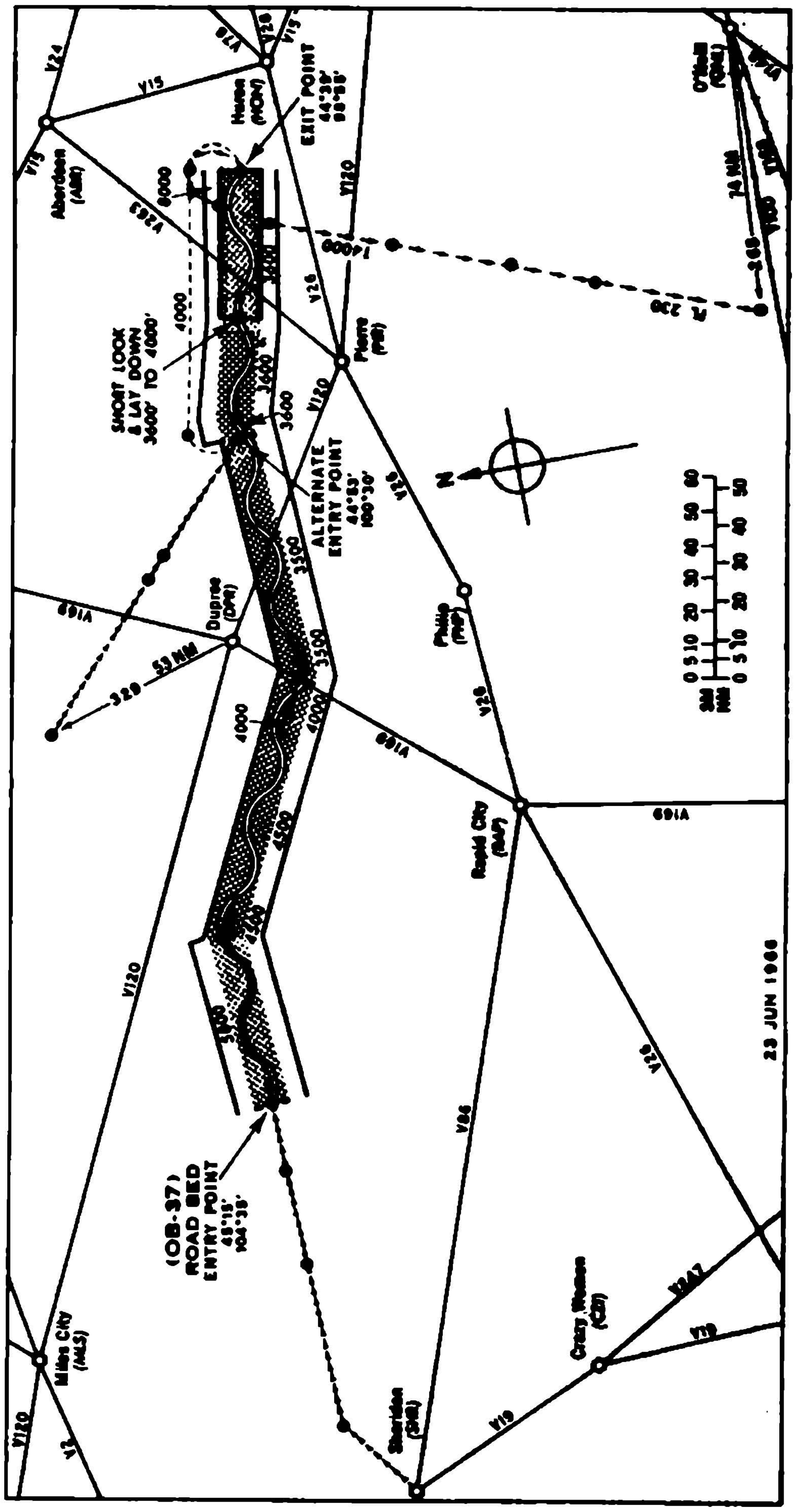
MONTANA/SOUTH DAKOTA

ROAD BED OB–37

Revised Effective June 19, 1966 through September 24, 1966

Aircraft shall cross the Sheridan, Wyoming VORTAC at FL 230 or as assigned by ARTCC; maintain FL 230 or assigned altitude direct to 45°08'N, 106°36'W; then start descent so as to cross 45°12'N, 105°35'W at or below 17,000' MSL then descend direct so as to cross 45°14'N, 105°00'W at or below 13,500 MSL continue descent so as to cross the route entry point at 45°15'N, 104°35'W at 5800' MSL; then at 5800' MSL direct to 45°20'N, 103°30'W; then descend so as to cross 45°18'N, 103°23'W at 4500' MSL; then at 4500' MSL direct 44°57'N, 102°20'W; then descend direct so as to cross 44°55'N, 102°14'W at 4000' MSL; then at 4000' MSL direct to 44°50'N, 102°00'W; then descend direct so as to cross 44°50'N, 101°55'W at 3500' MSL; then at 3500' MSL direct to 44°53'N, 100°30'W; then climb so as to cross 44°53'N, 100°23'W at 3600' MSL; then at 3600' MSL direct to the entry point of the bomb run corridor at 44°47'N, 99°49'W.

Short Look and Lay Down—After passing 44°47'N, 99°49'W, aircraft shall maintain between 3600' MSL and 4000' MSL through thhe bomb run corridor (4 NM either side of centerline from 44°47'N, 99°49'W to 44°39'N, 98°55'W). After exiting the route at 44°39'N, 98°55'W, aircraft shall turn left climbing so as to cross 44°52'N, 98°51'W at 8000' MSL; then at 8000' MSL continue left turn direct 44°47'N, 99°06'W; then start climb direct so as to cross 44°35'N, 99°17'W at 14,000' MSL; then at 14,000' MSL direct 44°05'N, 99°33'W; then start climb direct O'Neil, Nebraska VORTAC 265/74 (42°35'N, 100°21'W) crossing 43°36'N, 99°49'W at or above FL 200; crossing 43°16'N, 100°00'W at FL 230; then maintain FL 230 to O'Neil 265/74.



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 44°39'N, 98°55'W turn left and climb to or maintain 4000' MSL to 44°52'N, 98°51'W; then at 4000' MSL direct to 45°06'N, 100°26'W; then turn left and descend to 3500' MSL direct to 44°53'N, 100°30'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°15'N, 104°35'W to 44°39'N, 98°55'W.

Alternate Entry—Aircraft shall cross the Dupree, South Dakota VORTAC 329/53 (45°55'N, 102°06'W) at FL 200 or below as assigned by ARTCC; then descend direct so as to cross 45°23'N, 101°16'W at 16,000' MSL; then descend direct so as to cross 45°18'N, 101°08'W at or above 14,000' MSL; then descend direct so as to cross

44°53'N, 100°30'W at 3500' MSL; thence via the published route.

Route Width—The route width is reduced to 4 NM on the north side of centerline from 45°20'N, 103°30'W to 44°53'N, 100°30'W.

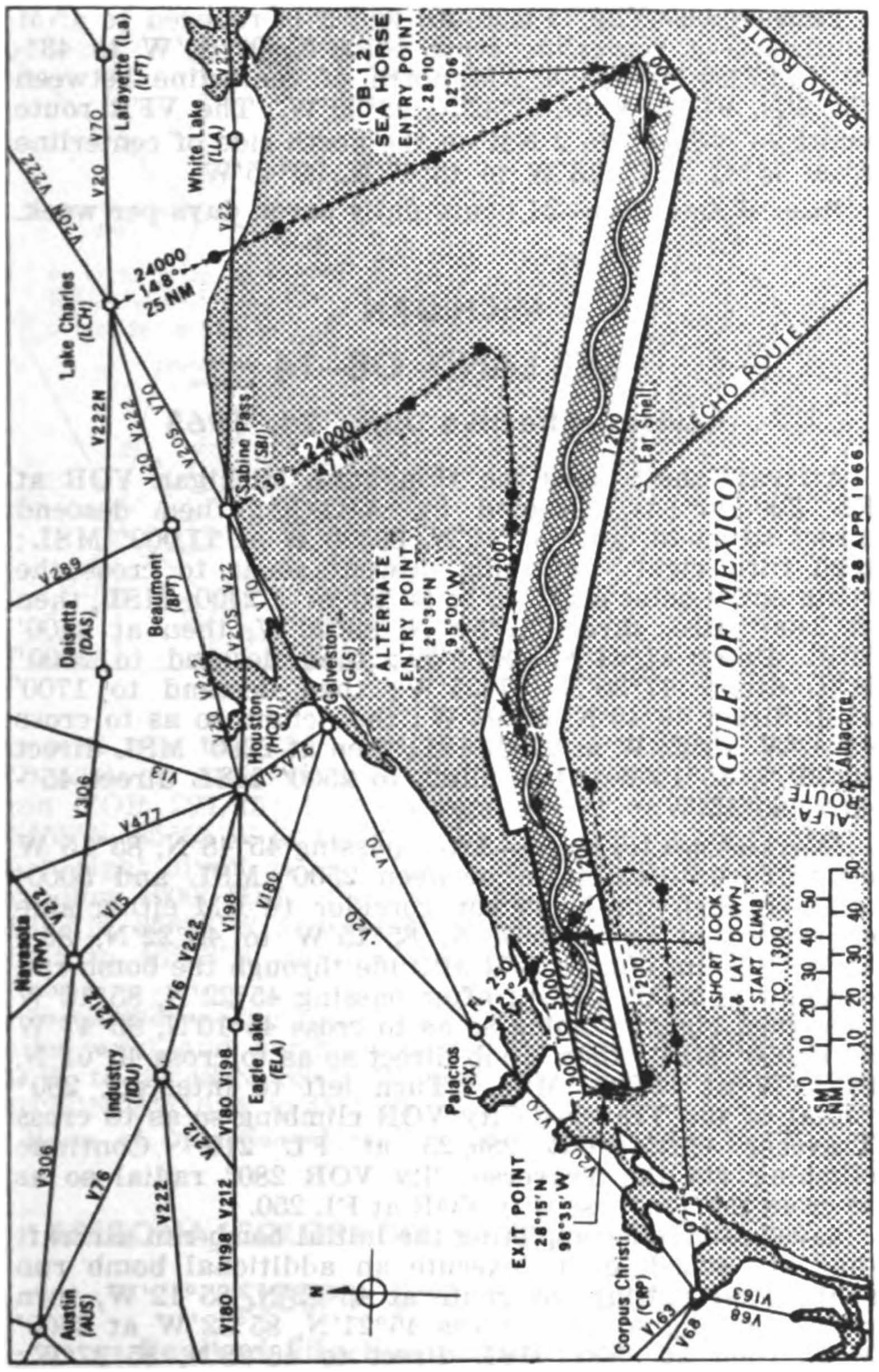
Hours of Operation—24 hours daily, 7 days per week.

TEXAS

SEA HORSE OB–12

Revised Effective February 27, 1966

Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix; start descent, cross 29°31'N, 92°47'W at FL 190, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1200' MSL (low level entry point). Maintain 1200' MSL, turn right to 28°03'N, 92°16'W, direct 28°35'N, 95°00'W. direct 28°24'N, 95°53'W.



Lafayette (La) (LFT)
White Lake (LLA)
Lake Charles (LCH)
Sabine Pass (SBI)
Beaumont (BPT)
Daisetta (DAS)
Houston (HOU)
Galveston (GLS)
Navasota (TNV)
Industry (IDU)
Eagle Lake (ELA)
Austin (AUS)
Palacios (PSX)
Corpus Christi (CRP)
V20 V70 V222 V222N V205 V22 V289 V306 V477 V212 V15 V76 V198 V180
24000 148° 25 NM
139° 24000 47 NM
(OB-12) SEA HORSE ENTRY POINT 28°10' 92°06'
ALTERNATE ENTRY POINT 28°35'N 95°00'W
EXIT POINT 28°15'N 96°35'W
SHORT LOOK & LAY DOWN START CLIMB TO 1300
1200
1300 TO 5000
FL 250
121°
075
Ear Shell
BRAVO ROUTE
ECHO ROUTE
ALFA ROUTE
Albacore
GULF OF MEXICO
28 APR 1966
SM NM 0 10 20 30 40 50
N

Short Look and Lay Down—After passing 28°24'N, 95°53'W climb to 1300' MSL and maintain between 1300' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 28°24'N, 95°53'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35'W, the route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°35'W turn left so as to cross 28°05'N, 96°32'W at 2,000' MSL; maintain 2000' MSL direct 28°18'N, 95°15'W, turn left descending so as to intercept the route at 28°31'N, 95°19'W at 1200' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the surface between the following points: From 28°10'N, 92°06'W to 28°19'N, 96°16'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the surface.

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°37'N, 94°06'W at 1200' MSL, direct 28°35'N, 95°00'W, thence via the published route.

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30'N, 95°24'W to 28°15'N, 96°35'W.

Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

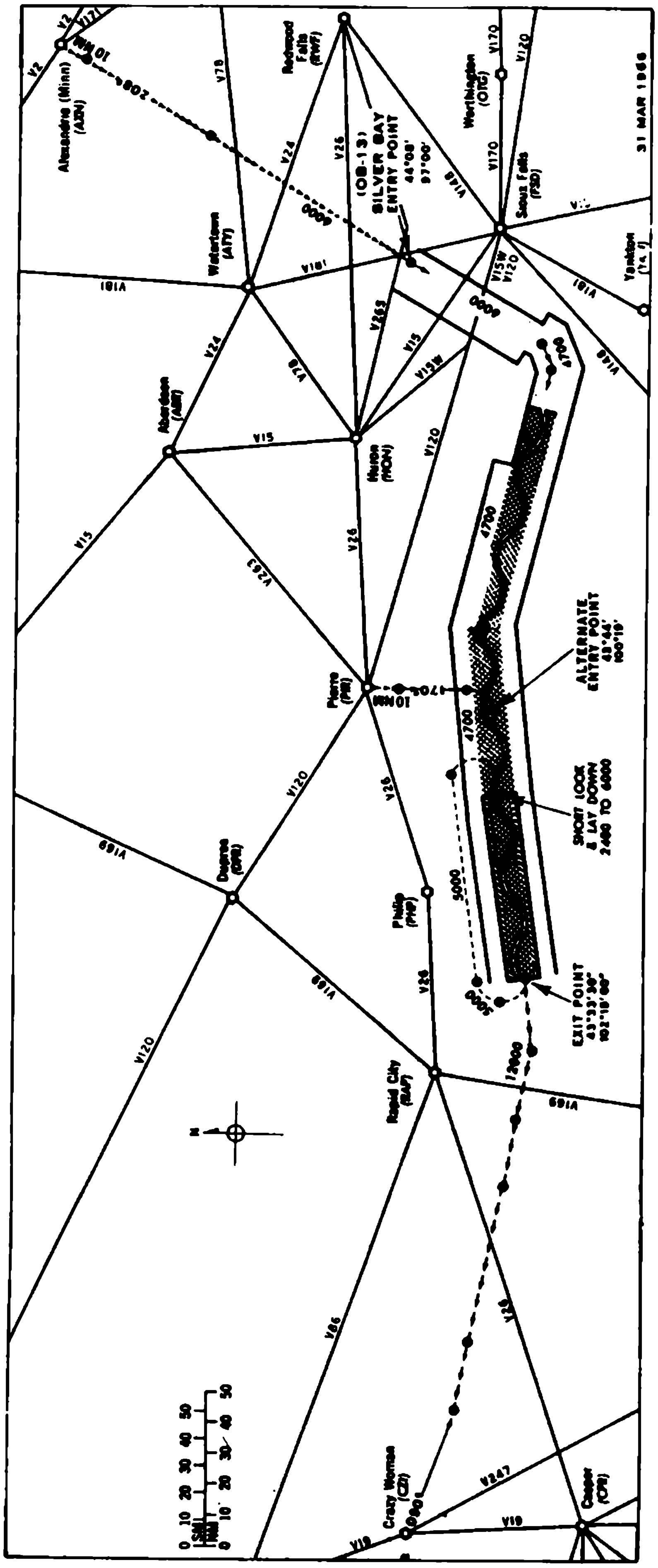
SILVER BAY OB–13

Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 206° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10'N, 96°00'W at 6000' MSL; then at 6000' MSL direct 44°08'N, 97°00'W (low level entry point); then at 6000'MSL direct 43°27'N, 97°37'W; then turn right descending so as to cross 43°24'N, 97°48'W at 4700' MSL; then at 4700' MSL direct 43°47'N, 99°45'W; then at 4700' MSL direct to 43°42'N, 100°56'W.

Short Look and Lay Down—After passing 43°42'N, 100°56'W, aircraft shall maintain between 2400' MSL and 6000' MSL through the bomb run corridor (4 NM either side of centerline from 43°42'N, 100°56'W to 43°33'30''N, 102°18'W). The minimum IFR altitude through the corridor is 4700' MSL. After exiting the route at 43°33'30''N, 102°18'W aircraft shall climb so as to cross 43°30'N. 102°50'W at 12,000' MSL; then at 12,000' MSL direct to 43°34'N, 103°20'W then climb direct so as to cross 43°37'30''N, 103°50'W at FL 180 then climb direct so as to cross 43°46'N, 105°00'W at or below FL 230 then climb direct so as to cross 43°49'N, 105°30'W (CZI 090/42 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33'30''N, 102°18'W turn right and climb or descend so as to cross 43°40'N,



Alexandria (Minn) (AXN)
Redwood Falls (RWF)
Worthington (OTG)
Sioux Falls (FSD)
Yankton
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
Pierre (PIR)
Dupree (DPR)
Philip (PHP)
Rapid City (RAP)
Crazy Woman (CZI)
Casper (CPR)
(OB-13) SILVER BAY ENTRY POINT 44°08' 97°00'
ALTERNATE ENTRY POINT 43°44' 100°19'
SHORT LOOK & LAY DOWN 2400 TO 6000
EXIT POINT 43°32'30" 102°18'30"
31 MAR 1966
4700
5000
12000
V2
V171
V78
V24
V26
V120
V170
V148
V15
V181
V263
V15W
V169
V19
V247
V86

102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°56'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30"N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30"N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08'N, 97°00'W to 43°29'N, 97°35'W and 4 NM north of centerline between 43°29'N, 97°35'W to 43°32'N, 98°30'W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41'N, 99°13'W to 43°47'N, 99°45'W.

Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND OB-14

Revised Effective June 24, 1965

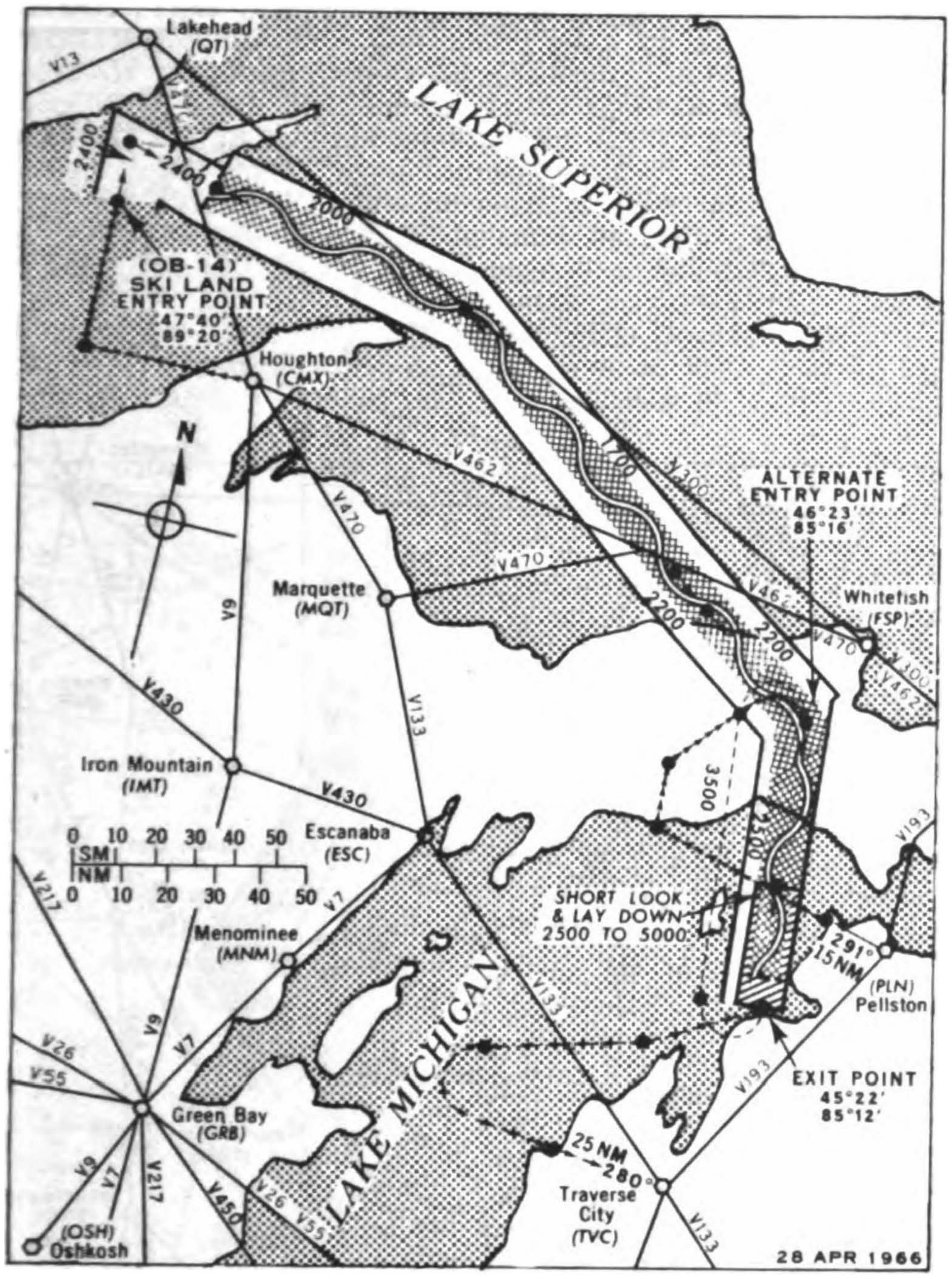
Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52"N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°48'N, 85°15'W.

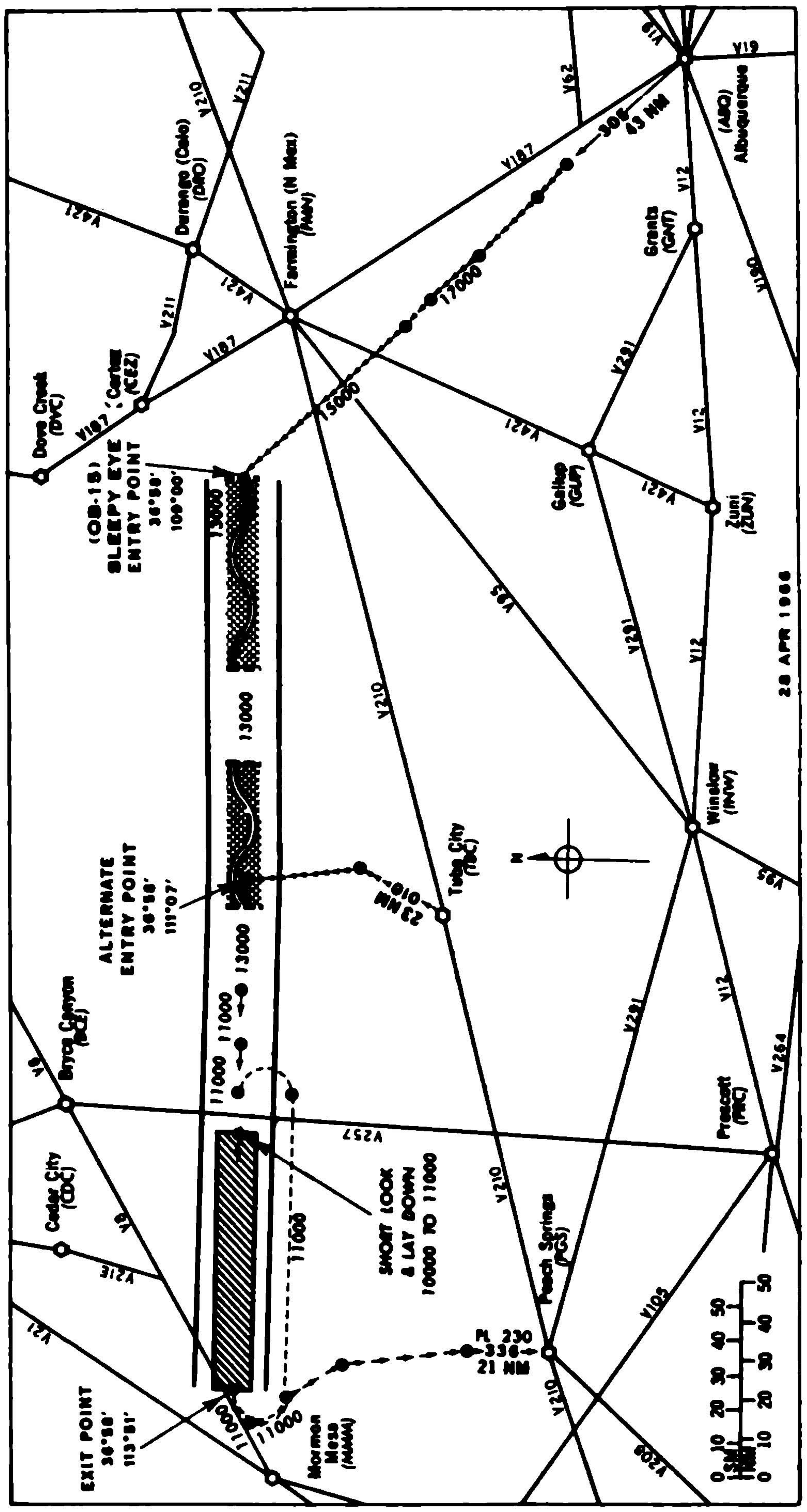
Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then


Lakehead (QT)
LAKE SUPERIOR
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
N
ALTERNATE ENTRY POINT 46°23' 85°16'
Marquette (MQT)
Whitefish (FSP)
Iron Mountain (IMT)
Escanaba (ESC)
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50
Menominee (MNM)
SHORT LOOK & LAY DOWN 2500 TO 5000
291° 15NM
(PLN) Pellston
EXIT POINT 45°22' 85°12'
Green Bay (GRB)
LAKE MICHIGAN
25NM 280°
Traverse City (TVC)
(OSH) Oshkosh
28 APR 1966


(OB-15) SLEEPY EYE ENTRY POINT 36°58' 109°00'
ALTERNATE ENTRY POINT 36°58' 111°07'
EXIT POINT 36°58' 113°51'
Durango (Colo) (DRO)
Farmington (N Mex) (FMN)
Dove Creek (DVC)
Cortez (CEZ)
Albuquerque (ABQ)
Grants (GNT)
Gallup (GUP)
Zuni (ZUN)
Winslow (INW)
Tuba City (TBC)
Bryce Canyon (BCE)
Cedar City (CDC)
Peach Springs (PGS)
Mormon Mesa (MMM)
Prescott (PRC)
305° 43 NM
17000
15000
13000
11000
010° 23 NM
SHORT LOOK & LAY DOWN 10000 TO 11000
FL 230 336° 21 NM
28 APR 1966

proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE OB–15

Revised Effective January 2, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°57'N, 107°51'W at 17,000' MSL; then maintain 17,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.

Short Look and Lay Down—After passing 36°58'N, 112°29'W aircraft shall operate between 10,000' and 11,000' MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30"N, 113°32'W).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left

direct to cross 36°58′N, 112°16′W at or below 11,000′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′ visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 36°58′N, 109°00′W to 36°58′N, 110°00′W and from 36°58′N, 110°30′W to 36°58N, 111°16′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07′30′′N, 111°16′W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28′N, 111°04′W); then descend direct to cross 36°58′N, 111°07′W at 13,000′ MSL; thence via published route.

Hours of Operation—24 hours daily, 7 days a week.

MAINE/NEW HAMPSHIRE/NEW YORK/VERMONT

STOCK FARM OB-38

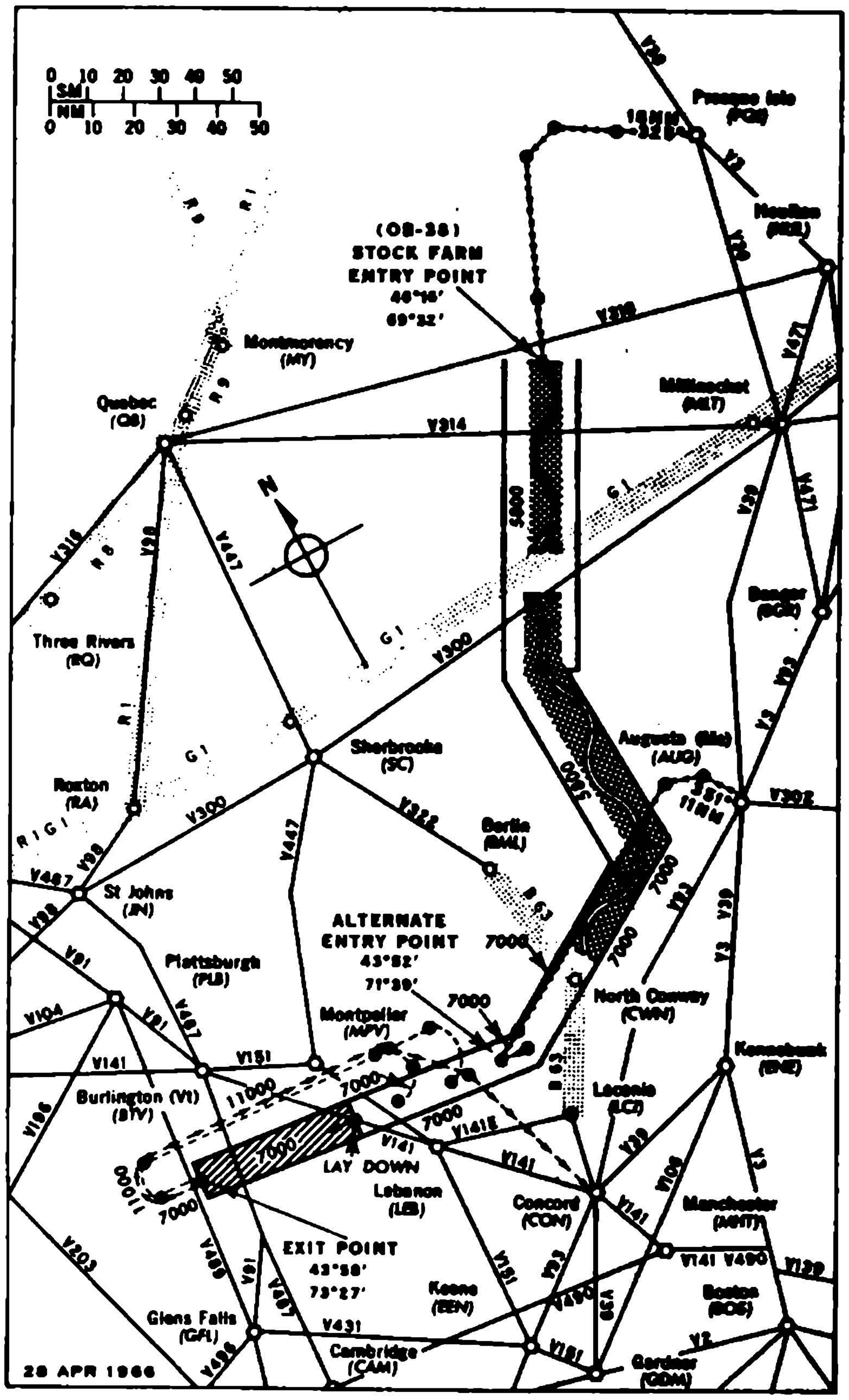
Effective: April 24, 1966 thru September 24, 1966

Aircraft shall cross 46°46′30′′N, 68°06′W (Presque Isle, Maine VORTAC) at FL 250, or as assigned by ARTCC, then at FL250, or assigned FL, direct to 46°56′N, 68°28′W (Presque Isle VORTAC 325/18 NM DME fix); descend direct to cross 47°04′N, 68°46′W at or above FL 180; turn left descending to 47°02′N, 69°00′W; continue descent direct to cross 46°30′N, 69°22′30′′W at or below 8000′ MSL; descend direct to cross 46°16′N, 69°32′W route low level entry point at 5800′ MSL; then at 5,800′ MSL direct to 45°11′N, 70°24′W; direct 44°22′N, 70°22′W; climb direct so as to cross 44°17′N, 70°33′W at 7,000′ MSL; direct 43°51′N, 71°30′W; (reporting point) direct 43°55′N, 72°32′W.

Lay Down—After passing 43°55′N, 72°32′W, aircraft shall operate at 7,000′ MSL through the bomb run corridor (4 NM either side of centerline from 43°55′N, 72°32′W to 43°58′N, 73°27′W). After exiting the route at 43°58′N, 73°27′W, aircraft shall maintain 7,000′ MSL direct 43°59′N, 73°41′W; (reporting point) turn right; climb to cross 44°09′N, 73°41′W at 11,000′ MSL; direct 44°07′N, 72°11′W; climb direct to cross 43°52′N, 71°51′W at or below 14,000′ MSL; then climb direct so as to cross 43°13′N, 71°35′W (Concord, N.H. VOR) at FL 230 or as assigned by ARTCC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 43°58′N, 73°27′W, maintain 7,000′ MSL direct to 43°59′N, 73°41′W; (reporting point) turn right, climb to cross 44°09′N, 73°41′W at 11,000′ MSL; then at 11,000′ MSL direct 44°07′N, 71°55′W; turn right, descend to cross 43°53′N, 71°57′W at 7,000′ MSL; thence via the published route. The aircraft may after 44°09′N, 73°41′W at 11,000′ MSL; proceed direct to 44°07′N, 72°16′W; then turn right and descend so as to cross 44°00′N, 72°07′W at 7,000′ MSL; then continue turn at 7,000′ MSL; to 43°54′N, 72°16′W thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′. visibility 5 miles, the pilot may descend VFR and operate between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 46°16′N, 69°32′W to 45°36′30′′N, 70°03′30′′ W and from 45°27′N, 70°11′W to 44°06′N, 70°58′W. VFR operations shall not be conducted during the hours of darkness.



0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
(OB-38)
STOCK FARM
ENTRY POINT
46°16′
69°32′
Presque Isle (PQI)
18NM
325°
Houlton (HUL)
Montmorency (MY)
Quebec (QB)
Millinocket (MLT)
Three Rivers (RQ)
Bangor (BGR)
Sherbrooke (SC)
Augusta (Me) (AUG)
351°
11NM
Roxton (RA)
Berlin (BML)
St Johns (JN)
ALTERNATE
ENTRY POINT
43°52′
71°39′
Plattsburgh (PLB)
Montpelier (MPV)
North Conway (CWN)
Kennebunk (ENE)
Burlington (Vt) (BTV)
Laconia (LCI)
LAY DOWN
Lebanon (LEB)
Concord (CON)
Manchester (MHT)
EXIT POINT
43°58′
73°27′
Keene (EEN)
Boston (BOS)
Glens Falls (GFL)
Cambridge (CAM)
Gardner (GDM)
N
V314
V316
V300
V447
V98
V487
V91
V104
V141
V151
V196
V203
V322
V302
V39
V3
V471
V1415
V106
V490
V129
V2
V431
V93
V181
5800
7000
11000
G1
R1
R8
R9
B63
28 APR 1966

Alternate Entry—Aircraft shall cross 44°19′N, 69°47′W (Augusta, Maine VOR) at FL 180 or as assigned by ARTCC; then at FL 180 direct 44°29′N, 69°54′W (Augusta VOR 351° radial 11 NM); then at FL 180 or assigned altitude, turn left to 44°32′N, 70°06′W; descend direct to cross 44°11′N, 70°55′W at 7,000′ MSL; direct 43°56′N, 71°30′W; then at 7,000′ MSL direct to 43°52′N, 71°39′W; (reporting point) thence via the published route.

Route Width—The route width is reduced to 4 NM on the east side of centerline from 45°11′N, 70°24′W to 44°22′N, 70°22′W and to 4 NM on either side of centerline from 44°22′′N, 70°22′W to 43°58′N, 73°27′W. The VFR route width is reduced to 2 NM on the W side of centerline from 46°16′N, 69°32′W to 45°36′30′′N, 70°03′30′′W.

Hours of Operation—24 hours daily, 7 days per week.

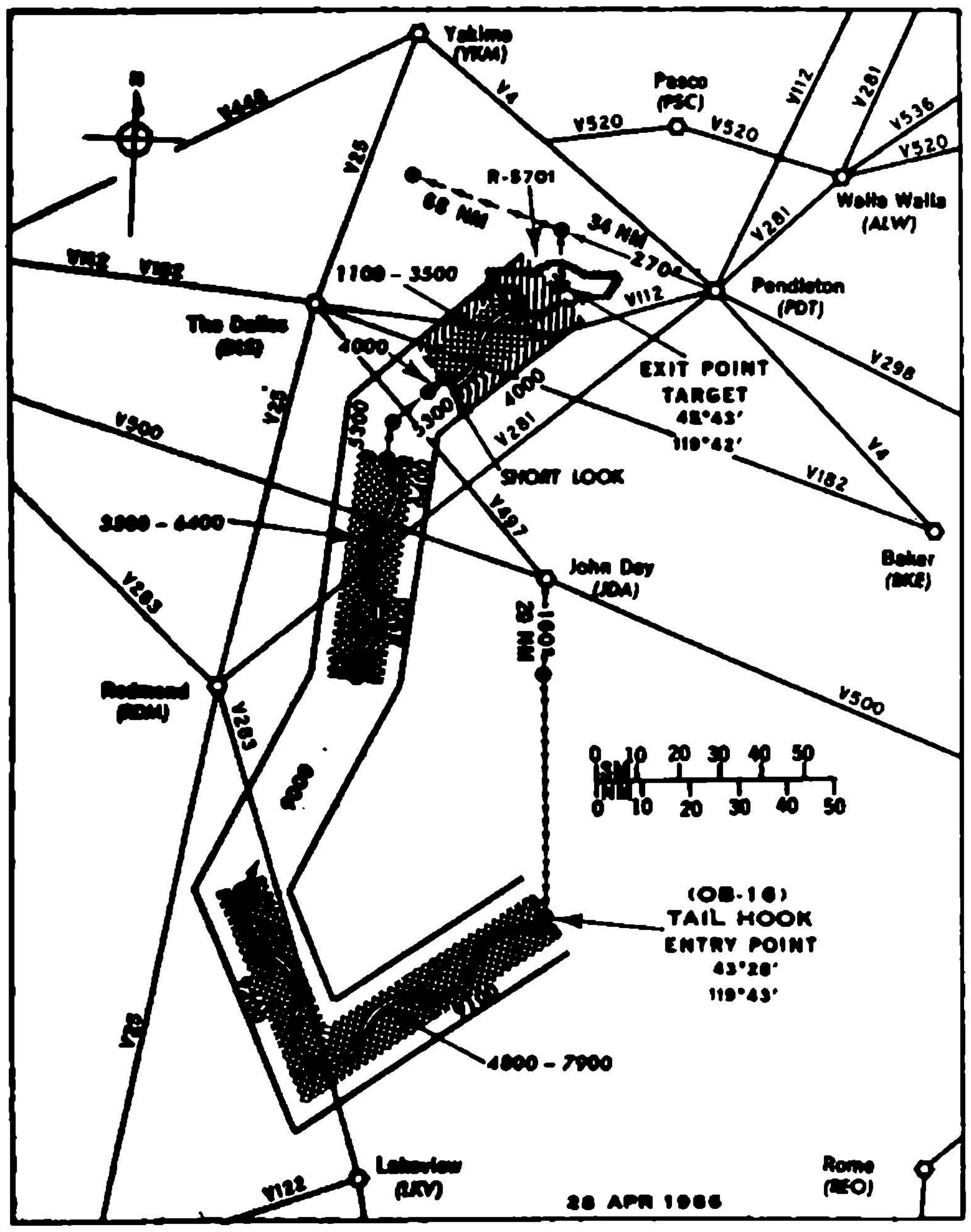
OREGON

TAIL HOOK OB-16

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000′ MSL, or as assigned by Seattle

ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19'N, 119°43'W); then descend to 9100' MSL to the entry point of the low level route at 43°28'N, 119°43'W; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.


Yakima (YKM)
Pasco (PSC)
Walla Walla (ALW)
Pendleton (PDT)
The Dalles (DLS)
R-5701
68 NM
34 NM
270°
1100 - 3500
4000
5300
EXIT POINT TARGET 45°43' 119°42'
SHORT LOOK
3300 - 6400
John Day (JDA)
Baker (BKE)
Redmond (RDM)
20 NM
160°
(OB-16) TAIL HOOK ENTRY POINT 43°28' 119°43'
4800 - 7900
Lakeview (LKV)
Rome (REO)
28 APR 1966
V4
V520
V112
V281
V536
V25
V298
V182
V500
V283
V122
V497

Short Look—After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R–5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 23,000' MSL.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R–5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

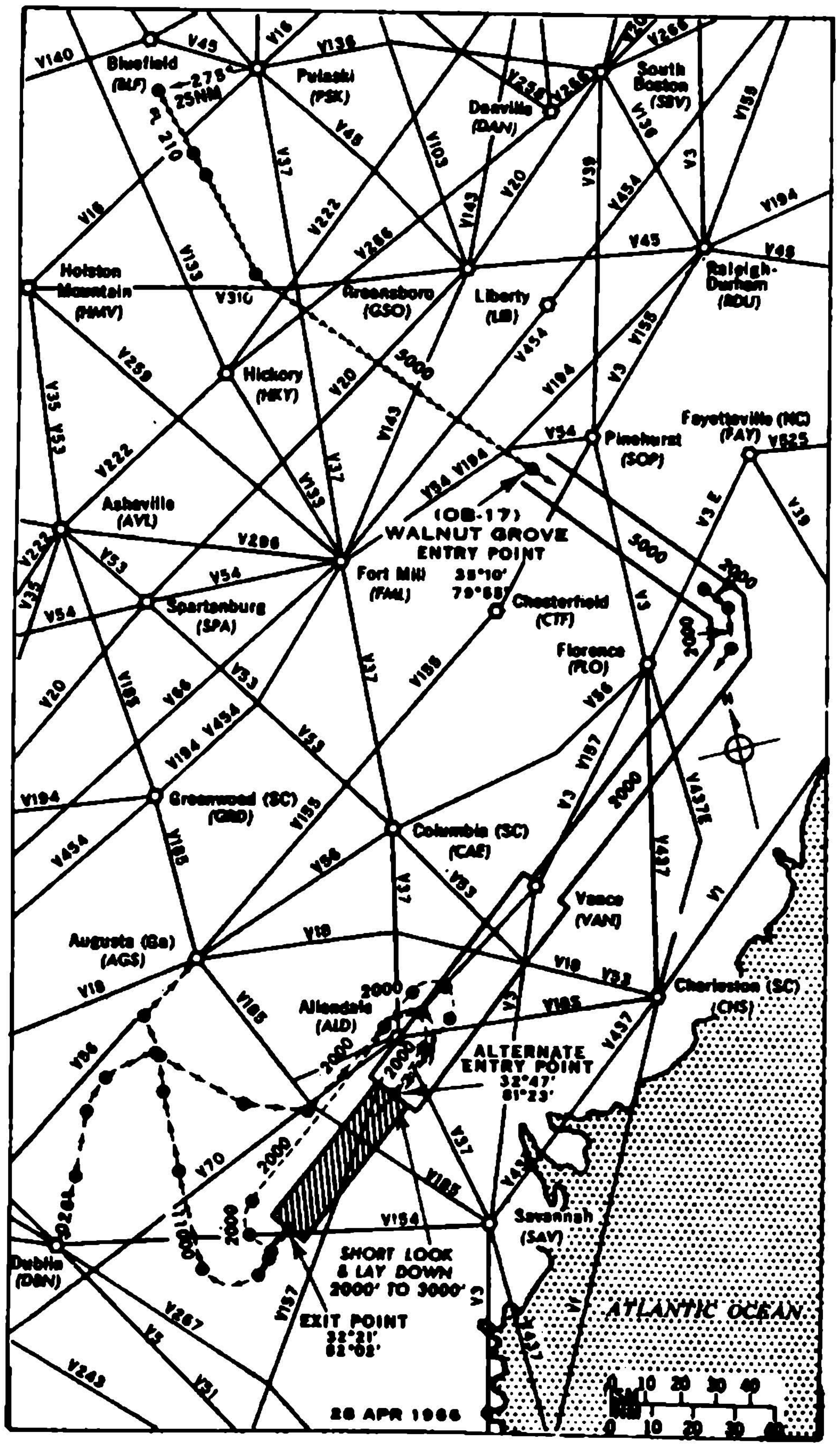
Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE OB–17

Revised Effective January 6, 1966

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°13'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 81°23'W.


Bluefield (BLF)
275° 25NM
Pulaski (PSK)
Danville (DAN)
South Boston (SBV)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
Fayetteville (NC) (FAY)
Pinehurst (SOP)
Asheville (AVL)
(OB-17) WALNUT GROVE ENTRY POINT 35°10' 79°55'
Fort Mill (FML)
Chesterfield (CTF)
Spartanburg (SPA)
Florence (FLO)
Greenwood (SC) (GRD)
Columbia (SC) (CAE)
Vance (VAN)
Augusta (Ga) (AGS)
Allendale (ALD)
Charleston (SC) (CHS)
ALTERNATE ENTRY POINT 32°47' 81°23'
Savannah (SAV)
Dublin (DBN)
SHORT LOOK & LAY DOWN 2000' TO 3000'
EXIT POINT 32°21' 81°02'
ATLANTIC OCEAN
5000
2000
210
28 APR 1966

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000'

MSL through the bomb run corridor (4 NM either side of center line from 32°47′N, 81°23′W to 32°21′N, 82°02′W). After exiting the route at 32°21′N, 82°02′W, aircraft shall climb to or maintain 3,000′ MSL to 32°16′N, 82°09′W; climb to cross 32°15′N, 82°11′W at 4,000′ MSL; cross 32°12′N, 82°15′W at 6,000′ MSL; right turn, continue climb to cross 32°16′N, 82°30′W at 11,000′ MSL; maintain 11,000′ direct 32°42′N, 82°29′W; then climb so as to cross 33°02′N, 82°28′W at FL 180; cross 33°10′N, 82°27′30″W at FL 200; cross 33°22′N, 82°27′W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21′N, 82°02′W, turn right and descend or maintain 2000′ MSL to 32°22′N, 82°13′W; then at 2000′ MSL continue turn to 32°30′N, 82°11′W; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′N, 81°10′W; continue turn to 32°55′N, 81°11′W; then at 2000′ MSL direct to 32°47′N, 81°23′W; thence via the published route. Aircraft may proceed at 2000′ MSL from 32°30′N, 82°11′W, direct 33°11′N, 81°09′30″W; turn right to 33°11′N, 80°59′30″ W; continue turn to 33°02′N, 81°01′W; thence via published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31′N, 83°08′W) at FL 260 or as assigned: then descend direct via the Dublin VOR 026° radial so as to cross 32°47′N, 82°59′W at FL 230; cross 33°01′N, 82°51′W at 17,000′ MSL; cross 33°09′N, 82°44′W at 15,000′ MSL; turn right to cross 33°11′N, 82°28′W at 13,000′ MSL; cross 32°54′N, 82°06′W at 3000′ MSL; then descend direct so as to cross 32°48′N, 81°54′W at 2000′ MSL; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′, 81°10′W; continue turn to 32°55′N, 81°11′W; then at 2000′ MSL direct to intercept the Walnut Grove route at 32°47′N, 81°23′W.

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26′N, 80°25′W to 32°47′N, 81°23′W the route width is reduced to 6 NM.

Hour of Operation—24 hours daily, 7 days a week.

KANSAS/OKLAHOMA/TEXAS

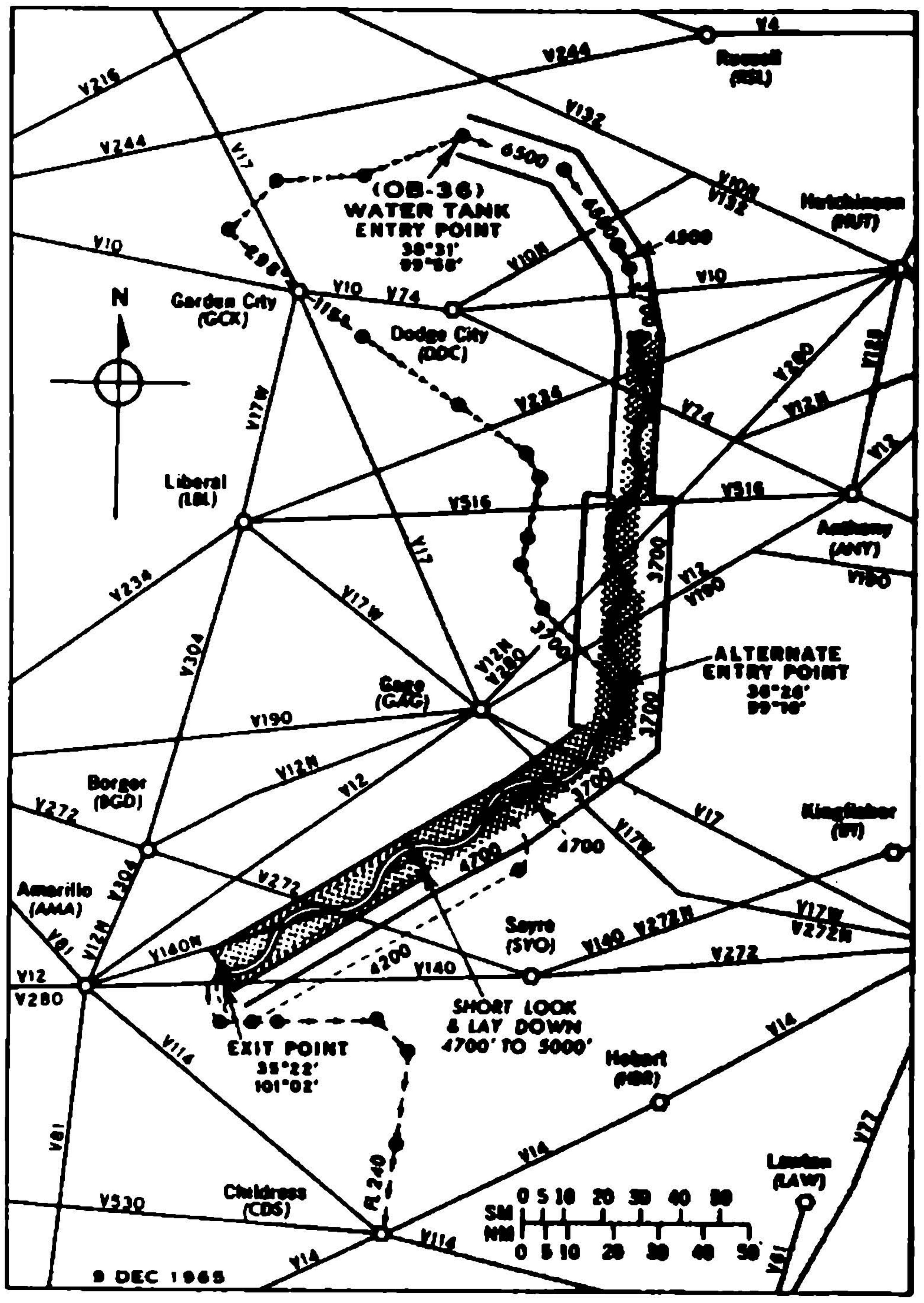
WATER TANK OB–36

Effective January 3, 1966 through July 22, 1966

Aircraft shall cross the Garden City, Kansas, VORTAC at FL 240 or as assigned by ARTC; then at FL 240, or assigned FL, proceed via the 298° radial of the Garden City VORTAC until 21 NM northwest (38°08′N, 101°04′W); then turn right descending so as to cross 38°20′N, 100°51′W at 17,000′ MSL; the descend direct so as to cross 38°22′N, 100°26′W at 11,000′ MSL; then descend direct so as to cross the route low level entry point at 38°31′N, 99°58′W at 6,500′ MSL; then at 6,500′ MSL turn right direct to 38°23′N, 99°30′W; then at 6,500′ MSL direct to 38°05′30″N, 99°15′W; then descend direct so as to cross 38°01′30″N, 99°12′W at 4,500′ MSL; then descend direct so as to cross 37°45′N, 99°09′W at 3,700′ MSL; then at 3,700′ MSL direct to 36°26′N, 99°16′W; then at 3,700′ MSL direct to 36°17′N, 99°17′W; then at 3,700′ MSL turn right to 36°03′N, 99°38′W; then climb direct so as to cross 36°01′N, 99°42′W at 4,700′ MSL; then at 4,700′ MSL direct to the entry point of the bomb run corridor at 35°48′N, 100°10′W.

Short Look and Lay Down—After passing 35°48′N, 100°10′W, aircraft shall operate between 4,700′ MSL and 5,000′ MSL through the bomb run corridor (4NM either side of centerline from 35°48′N, 100°10′W to 35°22′N, 101°02′W). After exiting the route at 35°22′N, 101°02′ W, aircraft shall turn left and maintain or climb so as to cross 35°10′N, 101°03′W at 5,000′ MSL; then continue left turn climbing so as to cross 35°10′N, 100°47′W at 8,000′ MSL; then climb direct so as to cross 35°11′N, 100°20′W at 16,000′ MSL; then turn right climbing so as to cross 35°04′N, 100°11′30″W at FL 200; then climb direct so as to cross 34°43′N, 100°14′30″W at FL 240; then at FL 240 direct to the Childress, Texas VOR.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 35°22′N, 101°02′W, turn left and descend so as to cross 35°10′N, 100°54′W at 4,200′ MSL; then at 4,200′ MSL direct to 35°45′N, 99°42′W; then turn left climbing so as to cross 35°57′N, 99°51′W at 4,700′ MSL; thence via the published route.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitude and 800′ above the immediate terrain between the following points: from 37°45′N, 99°09′W to 35°22′N, 101°02′W.

Alternate Entry—Aircraft shall cross the Garden City, Kansas VORTAC at FL 240 or as assigned by ARTC; then descend direct via the 115° radial of the Garden City VORTAC so as to cross 115/17 NM DME Fix (37°45′N, 100°26′W) at FL 220 ; then descend direct so as to cross 37°29′30″N, 99°59′W at 13,000′ MSL; then descend direct so as to cross 37°19′30″N, 99°40′W at 12,000′ MSL; then turn right descending so as to cross 37°13′N, 99°37′W at 10,000′ MSL; then descend direct so as to cross 37°00′N, 99°40′W at 9,000′ MSL; then descend direct so as to cross 36°54′N, 99°42′W at 7,000′ MSL:

then turn left descending so as to cross 36°44′N, 99°36′ W at 3,700′ MSL; then at 3,700′ MSL direct 36°26′N, 99°16′W; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline from 38°31′N, 99°58′W to 37°09′ N, 99°12′W and 4 NM on the northwest side of centerline from 36°17′N, 99°17′W to 35°22′N, 101°02′W. The VFR route width is reduced to 2NM on the west side of centerline from 37°45′N, 99°09′W to 37°09′N, 99°12′W and to 2NM on the east side of centerline from 37°09′N, 99°12′W to 36°48′N, 99°13′W.

Hours of Operation—24 hours daily, 7 days per week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB–18

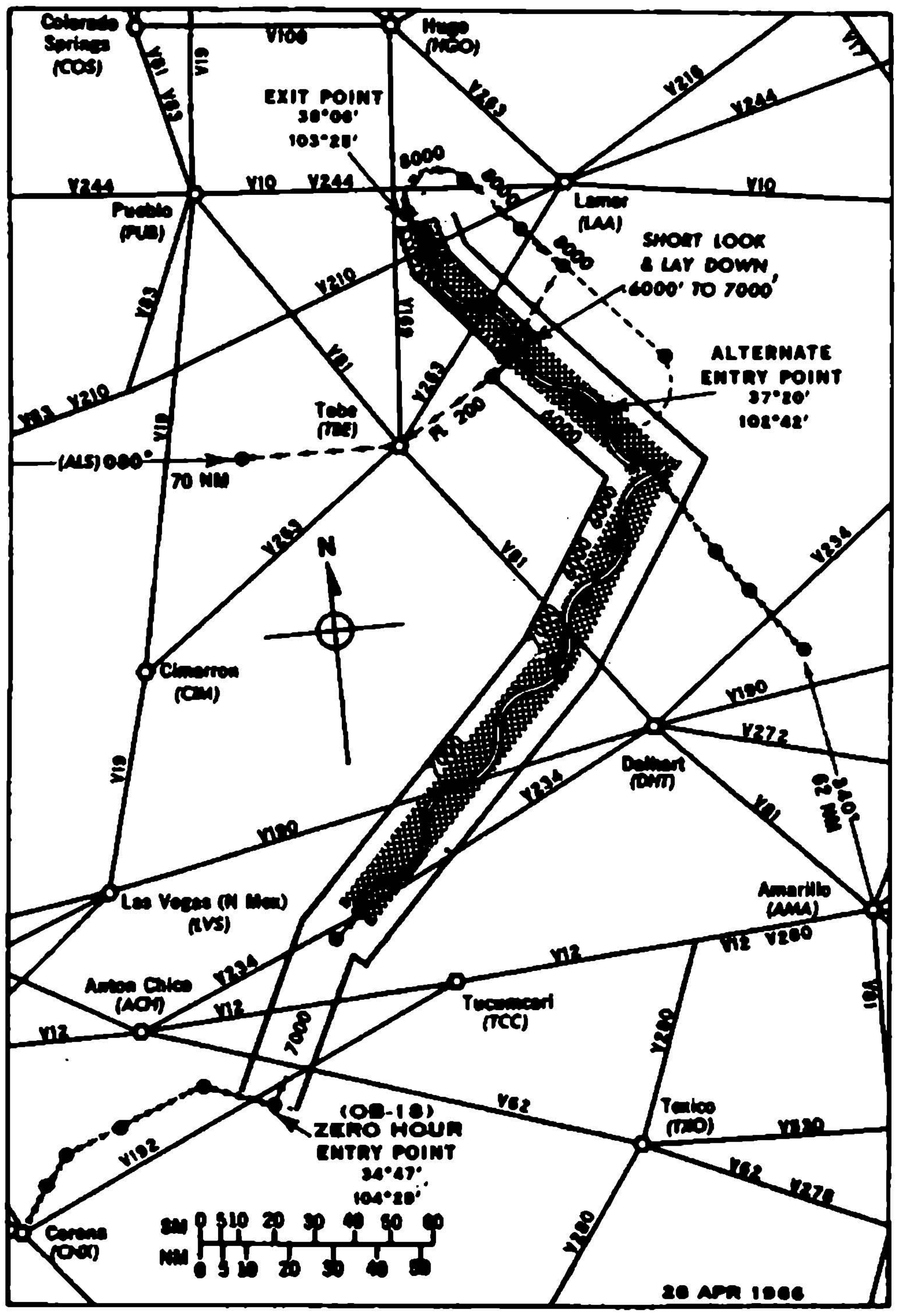
Revised Effective June 19, 1966

Aircraft shall cross 34°22′N, 105°40′30″W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33′ N, 105°33′W at or below FL 230; then descend direct to cross 34°40′N, 105°28′W at FL 220; then descend direct to cross 34°45′N, 105°12′W at or below 17,000′ MSL; then descend direct to cross 34°53′N, 104°48′W at 10,000′ MSL; then descend direct to cross the route entry point at 34°47′N, 104°29′ W at 7000′ MSL, maintain 7000′ MSL direct to 35°24′N, 104°08′W; then 7000′ MSL direct to 36°22′N, 103°00′W; then 7000′ MSL direct to 36°37′N, 102°49′W; then descend direct to cross 36°49′N, 102°40′W at 6000′ MSL; then 6000′ MSL direct to 37°06′N, 102°27′W; then 6000′ MSL direct to 37°36′N, 103°00′W.

Short Look and Lay Down—After passing 37°36′N, 103°00′W, aircraft shall maintain between 6000′ MSL and 7000′ MSL thru the bomb run corridor (4 NM either side of centerline from 37°36′N, 103°00′W to 37°57′N, 103°22′W to 38°06′N, 103°25′W). After exiting the route at 38°06′N, 103°25′W climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, turn right, maintain 8000′ MSL to 38°15′N, 103°10′W, then 8000′ MSL direct to 38°02′N, 102°55′W, then climb direct to cross 37°53′N, 102°45′W at 9000′ MSL, continue climb direct to cross 37°30′N, 103°08′W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16′N, 104°21′W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06′N, 103°25′W, climb direct to cross 38°09′N, 103°26′W at 8000′ MSL right turn to 38°15′N, 103°10′W, then 8000′ MSL direct 37°29′N, 102°18′W; then turn right descending to cross 37°14′N, 102°35′W at 6000′ MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 35°30′N, 104°01′W to 38°06′N, 103°25′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.


Colorado Springs (COS)
Hugo (HGO)
V108
V81
V83
V19
V263
V210
V244
V17
EXIT POINT 38°06′ 103°25′
8000
V244
V10
V244
Pueblo (PUB)
Lamar (LAA)
SHORT LOOK & LAY DOWN 6000′ TO 7000′
V83
V210
V169
V81
V263
ALTERNATE ENTRY POINT 37°20′ 102°42′
V83 V210
Tobe (TBE)
FL 200
6000
(ALS) 080°
70 NM
V19
V263
N
V81
V234
Cimarron (CIM)
V190
V272
Dalhart (DHT)
V234
340° 62 NM
V19
V190
V81
Las Vegas (N Mex) (LVS)
Amarillo (AMA)
V12 V280
V234
V12
Anton Chico (ACH)
V12
Tucumcari (TCC)
V12
7000
V280
V62
V81
(OB-18) ZERO HOUR ENTRY POINT 34°47′ 104°29′
Tezico (TXO)
V190
V192
V62 V278
Corona (CNX)
SM 0 5 10 20 30 40 50 60
NM 0 5 10 20 30 40 50
V280
28 APR 1966

Alternate Entry—Aircraft shall cross 36°19′N, 101°51′W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34′N, 102°03′W at 17,000′ MSL; then descend direct to cross 36°44′N, 102°11′W at 14,000′ MSL; then descend direct to cross 37°06′N, 102°27′W at 11,000′ MSL; then descend direct to cross 37°20′N, 102°42′W at 6000′ MSL; thence via the published route.

Route Width—The route width from 34°47′N, 104°29′W to 35°24′N, 104°08′W is reduced to 4 NM on the east side of centerline, and from 37°36′N, 103°00′W, to 38°06′N, 103°25′W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective June 23, 1966:

Location	Procedure	Action
	AUTOMATIC DIRECTION FINDING	
Burbank, Calif.—Lockheed Air Terminal	No. 1, Amdt. 1	Revised
Marshfield, Wisc.—Marshfield Municipal	No. 1, Orig.	Established
Rapid City, S.D.—Rapid City Municipal	No. 1, Amdt. 1, efctv 17 Jul 65	Cancellled
Sturgis, Mich.—Kirsch Municipal	No. 1, Orig.	Established
	VHF OMNIRANGE	
Burbank, Calif.—Lockheed Air Terminal	No. 1, Orig.	Established
Ft. Leavenworth, Kan.—Sherman AAF	No. 1, Orig.	Established
Gallup, N.M.—Senator Clarke Field	No. 1, Orig.	Established
Hawthorne, Calif.—Hawthorne	No. 2, Original	Established
Hoquiam, Wash.—Bowerman	No. 1, Amdt. 7	Revised
Rapid City, S.D.—Rapid City Municipal	No. 1, Amdt. 11	Revised
Rapid City, S.D.—Rapid City Municipal	No. 2, Amdt. 2, efctv 17 Jul 65	Cancellled
	TERMINAL VOR	
Eufaula, Ala.—Weedon Field	TerVOR-18, Orig.	Established
	VOR/DME	
Bradford, Pa.—Bradford-McKean Co. Arpt.	VOR/DME #1, Orig.	Established
Charlotte, N.C.—Douglas Municipal	VOR/DME #1, Amdt. 3	Revised
Charlotte, N.C.—Douglas Municipal	VOR/DME #2, Amdt. 1	Revised
Charlotte, N.C.—Douglas Municipal	VOR/DME #3 Amdt. 1	Revised
Charlotte, N.C.—Douglas Municipal	VOR/DME #4, Amdt. 1	Revised
Washington, D.C.—Washington National	VOR/DME #3, Amdt. 1	Revised
	INSTRUMENT LANDING SYSTEM	
Burbank, Calif.—Lockheed Air Terminal	ILS-7, Amdt. 21	Revised
Miami, Fla.—Miami Int'l Arpt.	ILS-9L, Amdt. 5	Revised
Miami, Fla.—Miami Int'l Arpt.	ILS-27L, Amdt. 5	Revised
Peoria, Ill.—Greater Peoria Arpt	ILS-12, Amdt. 7	Revised
San Antonio, Tex.—San Antonio Int'l Arpt	ILS-12, Amdt. 8	Revised
	RADAR	
Burbank, Calif.—Lockheed Air Terminal	No. 1, Amdt. 5	Revised
Detroit, Mich.—Metropolitan-Wayne Co. Arpt	No. 1, Orig.	Established

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective July 2, 1966:

AUTOMATIC DIRECTION FINDING

Charlottesville, Va.—Charlottesville-Albemarle Arpt	No. 1, Amdt. 2	Revised
Cleveland, Ohio—Cuyahoga County Arpt	No. 1, Amdt. 1	Revised
Grand Junction, Colo.—Walker Field	No. 1, Amdt. 3	Revised
Las Vegas, Nev.—McCarran Arpt	No. 1, Amdt. 2	Revised
North Platte, Nebr.—Lee Bird Field	No. 2, Original	Established
Washington, D.C.—Dulles Int'l Arpt	No. 1, Amdt. 3	Revised

VHF OMNIRANGE

Malden, Mo.—Malden Muni	No. 1, Amdt. 2	Revised
North Platte, Nebr.—Lee Bird Field	No. 1, Amdt. 9	Revised
Pontiac, Mich.—Pontiac Muni	No. 1, Amdt. 10	Revised
Pontiac, Mich.—Pontiac Muni	No. 2, Amdt. 4	Revised

TERMINAL VOR

Durango, Colo—Durango-La Plata Co. Arpt	TerVOR-2, Original	Established
Durango, Colo—Durango-La Plata Co. Arpt	TerVOR R-104, Amdt. 8	Revised
Greenwood, S.C.—Greenwood Co., Arpt	TerVOR-9, Amdt. 4	Revised
Greenwood, S.C.—Greenwood Co., Arpt	TerVOR-27, Amdt. 3	Revised
Las Vegas, Nev.—McCarran Arpt.	VOR-25, Amdt. 1	Revised
Las Vegas, Nev.—McCarran Arpt.	VOR-R-166, Amdt. 4	Revised
Moultrie, Ga.—Sunset Arpt	TerVOR-4, Amdt. 2	Revised
Moultrie, Ga.—Sunset Arpt	TerVOR-10, Amdt. 3	Revised
Moultrie, Ga.—Sunset Arpt	TerVOR-22, Amdt. 1	Revised

VOR/DME

Houston, Texas—William P. Hobby Arpt	VOR/DME #2, Amdt. 9	Revised
Houston, Texas—William P. Hobby Arpt	VOR/DME #3, Amdt. 7	Revised
Las Vegas, Nev.—McCarran Arpt	VOR/DME #1, Amdt. 5	Revised
Las Vegas, Nev.—McCarran Arpt	VOR/DME #3, Orig., efctv. 3 Oct. 64	Cancelled
Las Vegas, Nev.—McCarran Arpt	VOR/DME #4, Amdt. 1	Revised

INSTRUMENT LANDING SYSTEM

Charlottesville, Va.—Charlottesville-Albemarle Arpt	ILS-3, Amdt. 4	Revised
Grand Junction, Colo.—Walker Field	ILS-11, Amdt. 19	Revised

RADAR

Covington, Ky.—Greater Cincinnati Arpt	No. 1, Amdt. 6	Revised
Las Vegas, Nev.—McCarran Arpt	No. 1, Amdt. 1	Revised

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→ Cheyenne	Jun 23 66	12/8/66	Lincoln	Mar 31 66	10/13/66	→ Seattle	Jun 23 66	12/8/66
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Cincinnati	Feb 3 66	8/18/66	Los Angeles	Mar 3 66	8/18/66	Sioux City	May 26 66	11/10/66
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* Duluth	Jul 22 65	7/21/66	New York	Mar 31 66	10/13/66			
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			Norfolk	Mar 3 66	9/15/66			

† DISCONTINUED
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* New Edition will be published prior to Effective date, July 21, 1966.

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WAC 180	July 7, 1965	WAC 308	Oct. 29, 1965	WAC 469	Dec. 21, 1965
WAC 191	May 6, 1965	WAC 309	Nov. 22, 1965	WAC 470	Feb. 11, 1966
WAC 192	Jan. 27, 1966	WAC 310	Jan. 14, 1966	→ WAC 471	Mar. 8, 1966
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INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	ALABAMA				
5014	Anniston		6-4-66(1)		
50	Birmingham		6-4-66(1)	6-4-66R5	
			6-4-66(2)		
5176	Fort Rucker (Lowe AHP) (For Helicopter Use Only)		5-28-66(1)		
272	Montgomery (Dannelly Fld.)		5-21-66(1)	5-21-66R9	
703	Redstone Arsenal (AAF)	6-4-66R17*	6-4-66(1)		
		6-4-66R35*	6-4-66(2)		
	ALASKA				
1188	Annette Island (FAA)	6-4-66R12	6-4-66(2)		
1225	McGrath	6-18-66(1)			6-18-66
1193	Yakutat	5-28-66DME(1)	5-28-66(1)		5-28-66
		5-28-66DME(3)			
		5-28-66R11			
		5-28-66R29			
	ARKANSAS				
5135	Harrison	6-4-66(1)			
	CALIFORNIA				
557	Chico (Mun.)	5-28-66Rad-290			
552	Los Angeles (Van Nuys)	6-18-66Rad-255*			
965	Ontario (Intnl.)		6-18-66(1)	6-18-66R25	
				6-18-66R7(BC)	
858	Paso Robles (County)	5-26-66Rad-133			
	DELAWARE				
5365	Cheswold(Del. Airpark)	6-18-66(1)*			
	DISTRICT OF COLUMBIA				
443	Washington (National)	6-11-66R15	6-11-66(1)	6-11-66R36	
		6-11-66R36	6-11-66(2)		
		6-11-66DME(1)			
		6-11-66DME(2)			
		5-20-66Radar River Apch-2*			
		5-20-66DME(3)*			
	FLORIDA				
257	Miami (Intnl)	6-4-66(1)			
318	Pensacola		6-18-66(1)	6-18-66R16	
			6-18-66(2)	6-18-66R34(BC)	
416	Tampa (Intnl)	6-4-66DME(1)	6-4-66(1)	6-4-66R18L	
			6-4-66(2)	6-4-66R36R(BC)	
	GEORGIA				
5360	Winder	5-26-66DME(1)*			
	HAWAII				
762	Kahului, Maui		6-2-66(1)	6-2-66R2	
	IDAHO				
590	Idaho Falls (Fanning Fld)	5-28-66R2	5-28-66(1)		
		5-28-66R20			
885	Twin Falls (Joslin Field)	6-18-66R25			

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		ILLINOIS			
166	Chicago (-O'Hare Intnl)	6-18-66R4	6-18-66(1)	6-18-66R14R	
		6-18-66R22	6-18-66(2)	6-18-66R14L	
			6-18-66(3)	6-18-66R27	
			6-18-66(4)	6-18-66R32L	
			6-18-66(5)	6-18-66R32R	
				6-18-66Par'l -R14R&L	
				6-18-66Par'l -R32R&L	
5004	Morris	6-4-66(1)			
5364	Salem (Leckrone)		6-18-66(1)*		
		INDIANA			
171	Goshen	5-28-66(1)	5-28-66(1)		
203	Indianapolis (Weir Cook)		6-18-66(2)	6-18-66R31	
				6-18-66R13(BC)	
		IOWA			
69	Burlington	5-28-66(1)			
949	Davenport (Mun.)		6-4-66(1)		
682	Iowa City	5-28-66(1)			
		KANSAS			
491	Garden City	5-28-66R17	5-28-66(1)		
		5-28-66R35			
495	Independence		6-11-66(1)		
501	Pratt		6-4-66(1)		
987	Wichita	6-11-66(1)	6-11-66(1)	6-11-66R19(BC)	
987				6-11-66R1	
5141	Wichita (Beech)	6-4-66(1)			
		KENTUCKY			
655	Covington (Grtr. Cincinnati)		5-21-66(2)	5-21-66R18	
				5-21-66R18(BC)	
				5-21-66R36(BC)	
		LOUISIANA			
5040	New Iberia	6-4-66(1)			
884	Shreveport (Greater)		5-28-66(1)	5-28-66R13	
				5-28-66R31(BC)	
		MAINE			
909	Sanford	5-28-66(1)			
		MICHIGAN			
119	Detroit (Metro. Wayne Co.)	5-26-66(1)	5-26-66(1)	5-26-66R3L&R	
		5-26-66(2)	5-26-66(2)	5-26-66R21R	
467	Detroit (Willow Run)	5-26-66R5R	5-26-66(1)	5-26-66R5R&L	
		5-26-66R23L		5-26-66R23R&L(BC)	
		5-26-66R27L			
5321	Dowagiac (Cass Co. Mem.)	6-4-66(1)			
618	Flint (Bishop)		6-11-66(1)	6-11-66R9	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		MICHIGAN			
861	Jackson (Reynolds)	6-11-66R5 6-11-66R23 6-11-66R13 6-11-66R31			
278	Muskegon (County)		5-28-66(1)	5-28-66R32	
		MINNESOTA			
5353	Fairmont	5-28-66R31			
5094	Minneapolis (Flying Cloud)	6-4-66R9L			
264	Minneapolis (St. Paul Intnl)	6-4-66R9L	5-28-66(1) 6-4-66(2)	5-28-66R29L 6-4-66R4 6-11-66R11R(BC) 6-11-66R22(BC)	
		MISSISSIPPI			
576	Gulfport	5-26-66(1)*			
206	Jackson (Hawkins)	6-11-66(1)	6-11-66(2)		
5132	Jackson (Thompson Fld)	6-11-66DME(2)* 6-4-66(1) 6-4-66DME(1)	6-4-66(1)	6-11-66R33R(BC) 6-4-66R15L	
5164	Madison (Campbell Fld)	5-28-66(1) 5-28-66DME(1)			
783	McComb (Pike County)	6-18-66(1)			
		MISSOURI			
796	Jefferson City (Mem.)	6-18-66R12 6-18-66R30			
		MONTANA			
484	Cut Bank	6-18-66(1)			
		NEBRASKA			
173	Grand Island	6-18-66R12 6-18-66R17 6-18-66DME(1)			
304	Omaha (Eppley Airfield)	6-18-66DME(1)	6-18-66(1)	6-18-66R14 6-18-66R32(BC)	
		NEVADA			
129	Elko	6-4-66(1) 6-4-66DME(1)			
		NEW JERSEY			
5075	Readington(Solberg-Hunterdon)	5-28-66(1)			
		NEW MEXICO			
478	Deming	6-4-66(1)			
851	Hobbs(Lea Co. (Hobbs)	6-4-66(1)			
		NEW YORK			
880	Dunkirk	6-4-66R24*			
131	Elmira (Chemung Co.)		5-28-66(1)	5-28-66R24	
779	Ithaca (Tompkins Co.)	5-28-66R14			
905	Massena (Richards)	5-26-66(1) 5-26-66DME(1) 5-26-66DME(2)			

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	NEW YORK				
610	New York (John F. Kennedy International)	5-21-66R4L&R	6-18-66(1)	6-18-66R4R	
		5-21-66R22R&L	6-18-66(2)	6-18-66R22L	
		5-21-66R13L&R	6-18-66(3)	6-18-66R31R	
		5-21-66R31R			
		5-21-66DME(1)			
		5-21-66Rad-140			
911	Plattsburgh	6-4-66(1)	6-4-66(1)		
351	Rochester (Monroe Co.)	6-4-66R1	6-4-66(1)	6-4-66R28	
		6-4-66R10		6-4-66R4	
		6-4-66R4			
		6-4-66R22			
	NORTH CAROLINA				
5061	Asheville (Municipal)	5-21-66(1)	5-21-66(2)		
516	Raleigh (Durham)	6-4-66R5	6-4-66(1)	6-4-66R5	
		6-4-66R23	6-4-66(2)	6-4-66R23(BC)	
5239	Southern Pines (Pinehurst)	6-4-66(1)			
459	Wilmington (New Hanover Co)	6-18-66(1)		6-18-66R16(BC)*	
	OHIO				
5042	Dayton (Montgomery Co.)	6-11-66R20			
		6-11-66Rad-136			
702	Findlay	6-4-66(1)	6-4-66(1)		
			6-4-66(2)		
5292	Lancaster(Anchor Hocking)	6-11-66Rad-090			
5363	Strongsville (Airpark)	6-4-66R9*			
753	Willoughby (Lost Nation)		6-11-66(1)		
			6-11-66(2)		
	OKLAHOMA				
22	Ardmore (Municipal)	5-21-66(1)	5-21-66(1)		
432	Tulsa (Intnl)	6-18-66(1)		6-18-66R17L(BC)	
	OREGON				
251	Medford	6-4-66(1)		6-4-66R14	
		6-4-66DME(1)			
		6-4-66DME(2)			
	PENNSYLVANIA				
15	Allentown (Bethlehem-Easton)		5-28-66(1)	5-28-66R6	
100	Altoona(Martinsburg), (Blair Co.)	5-28-66(1)			
898	Johnstown (Cambria Co.)	6-11-66R15			
		6-11-66R5			
		6-11-66R23			
528	Philadelphia (North)		5-28-66(1)		
	SOUTH CAROLINA				
5361	Rock Hill	5-26-66(1)*			
5194	Sumter	6-4-66(1)			
	TENNESSEE				
79	Chattanooga (Lovell Fld)		6-18-66(1)	6-18-66R20	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		TENNESSEE			
5062	Jackson (McKellar Fld.)		6-4-66(1)		
5205	Lexington(Franklin-Wilkins)	6-18-66(1)			
		TEXAS			
61	Brownsville(Rio Grande Valley)	5-21-66(1)	5-21-66(1) 5-21-66(2)	5-21-66R17L	
82	Childress	6-4-66(1)			
106	Dallas (Love Field)	6-4-66R18 6-4-66R36			
5017	Houston (Andrau Airpark)		6-4-66(1)		
198	" (William P. Hobby)	6-4-66DME(1) 6-4-66DME(2) 6-4-66DME(3) 6-4-66DME(4)	6-4-66(1) 6-4-66(4)	6-4-66R3 6-4-66R21(BC)	
5269	Laredo	6-18-66(1) 6-18-66DME(1)			
		UTAH			
5071	Dugway (Michael AAF)		6-4-66(1)		
		VERMONT			
522	Barre-Montpelier	6-4-66R35			
70	Burlington	5-21-66(1)	5-21-66(1)	5-21-66R15	
		VIRGINIA			
5359	Lawrenceville	5-28-66(1)*			
347	Richmond (Byrd Field)	5-28-66R6 5-28-66R24 5-28-66R15 5-28-66R33	5-28-66(1) 5-28-66(2)	5-28-66R6	
		WASHINGTON			
474	Pasco (Tri-Cities)	6-11-66R20R 6-11-66R29R			
		WEST VIRGINIA			
616	Clarksburg (Benedum)	5-28-66(1)			
		WISCONSIN			
5216	Appleton (Outagamie Co.)		6-18-66(1) 6-18-66(2)*		
5319	Baraboo (Bell Aero Service)	6-11-66(1)			
938	Janesville (Rock County)	6-4-66(1) 6-4-66DME(1)			
5085	Rhinelander (Oneida Co.)	5-28-66R5 5-28-66R15			
874	Wausau	6-18-66(1)			
		WYOMING			
148	Fort Bridger	5-21-66(1)			
504	Jackson(Jackson's Hole)	6-11-66(1)			
		RADAR			
Radar	Pages 1-18	6-4-66			

*NEW CHART

AIRMAN'S
INFORMATION
MANUAL

FEDERAL AVIATION AGENCY

PART 3A

EFFECTIVE 0501Z 23 JUNE 1966

To 0501Z 7 JULY 1966

NOTICES
TO
AIRMEN

Part 3–A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necssarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

✓ALABAMA: June 30, ILS LMMs decmsnd at the following airports: Birmingham Muni-rnwy 5, Mobile-Bates-rnwy 14 and Montgomery, Dannelly Fld—rnwy 9.

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and lndgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

BRANTLEY MUNI ARPT: Clsd until July 1966.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft. (12–23)

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd until aprxly July 1966. VFR acft ctc Craig Twr on 126.2 for tfc and lndg advisories.

ARIZONA

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PEACH SPRINGS RDO: DME shutdown until aprxly June 24.

PHOENIX, SKY HARBOR MUNI ARPT: 1200′ additional rnwy avail dalgt hrs E end of rnwy 8R–26L at pilot's discretion, due engr test.

TUCSON RDO: VHF/DF unusable beyond 40 NM below 13,500′ MSL 345–070°, below 12,500′ MSL 070–090° acct reduced coverage.

YUMA MCAS/YUMA INTL ARPT: Rnwy 17–35 clsd UFN. (6–9)

ARKANSAS

FAYETTEVILLE MUNI ARPT (DRAKE FLD): Threshold rnwy 16 displaced 800′ due constr until aprxly July 1.

FLIPPIN ARPT: Clsd UFN due constr. (6–9)

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

✓CALIFORNIA: ILS LMMs decmsnd June 30 at flwg arpts: Bakersfield, Meadows Fld Long Beach, Long Beach (Daugherty Fld), Ontario Intl.—Rnwy 25.

MAXWELL RDO: June 21 DME will be shut down til aprxly June 30 to replace antenna.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline until aprxly July 1966.

PLACERVILLE ARPT: Rnwys 5–23 clsd until aprxly Aug 13, 1966. (2–17)

RED BLUFF RDO: July 5, DME will be shutdown until aprxly July 14 for antenna mod.

SAN DIEGO INTL-LINDBERGH FLD: Rnwy 13–31 clsd til aprxly Aug 1. (6–9)

SAN FRANCISCO INTL ARPT: Rnwy 10R–28L clsd til aprxly July 18. (6–9)

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

STOCKTON-METROPOLITAN ARPT: First 1000′ rnwy 29R clsd 1500–0200Z Mon–Fri.

TWENTYNINE PALMS ARPT: Rnwy lgts inop. (3–17)

COLORADO

CORTEZ, CORTEZ-MONTEZUMA COUNTY ARPT: Clsd UFN due constr.

GRAND JUNCTION, WALKER FLD TWR: Glide slope shutdown until aprxly June 23, 1966. (3–17)

MEEKER RDO: June 23, VORTAC will be shut down til aprxly July 21 for freq change to 115.2 mc. Class will be H-BVORTAC.

TRINDAD RDO: VHF/DF unusable beyond 40 nmi below 8000′ MSL 280–120°, 9000′ MSL 120–135°, 15,000′ MSL 135–175°, 17,500′ MSL 175–220°, 14,500′ 220–280° acct reduced coverage. (2–17)

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large acft including jets, also clsd for ngt operns.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P-56. See Washington, D.C. chart under Special Notices–Area in Part 3 for location.

✓WASHINGTON, DULLES INTL ARPT TWR: June 30. ILS LMM rnwys 1R and 19R decmsnd.

WASHINGTON NATL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying VIP or officers above rank of Major General or Rear Admiral (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C-140) (2) Sabreliner (T-39) (3) Morane Sauliner 760 (4) Jet Commander (Aero Commander) (4) Learjet Model 23 (Lear Jet Co.) (6) Hawker Siddley DH-125 (7) Fan Jet Falcon (8) Caravelle (9) DC-9 (10) BAC-111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. No Turbojet acft described in paragraph B (8) through (11) may be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda, Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

✓WASHINGTON NATIONAL ARPT TWR: June 30, LMM rnwy 36 decmsnd.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: HAITI, private acft landing or overflying Haiti must furnish 48 hours advance notice and a flight plan must be filed. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

LAKE CITY MUNI ARPT: July 3, 4, 5 btn 0600 and 1900 FAA operg tmprly twr. Freqs: 119.7 mc 122.7 rcvg lcl ctl. Emgcy 121.5 mc. Mil acft use 314.6 mc. Acft with no rdo given lgt signal.

LAKELAND MUNI ARPT: Rnwy 4-22 clsd UFN. (6-9)

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

PALM BEACH RDO: DME will be shutdown June 20 until June 24 for antenna replacement. (6-9)

SANFORD NAS RDO: Rbn inop UFN.

TAMPA FSS: Sept 1, FSS will be relctd to St. Petersburg. Name to change to St. Petersburg and ident to be "PIE". All freqs and services will remain the same.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtd 80' boom pile driver operg 1200' N apch end rnwy 27 until aprxly Dec 1, 1966. (1-6)

WEST PALM BEACH, PALM BEACH COUNTY PARK ARPT: Rnwy 9-27 and adjacent apron areas under constr until aprxly Sept 6.

GEORGIA

ALMA, BACON COUNTY ARPT: Clsd to all operns until aprxly Oct 1 due constr. (6-9)

ATLANTA, DEKALB-PEACHTREE ARPT: Tmpry ctl twr transmitting and receiving on 121.3, 121.7 and receiving only on 122.5 until aprxly June 30. (1-20)

IDAHO

POCATELLO MUNI ARPT: Rnwy 16-34 lgts inop UFN.

ILLINOIS

ALTON: Control zone effective June 23, within a 5 mi radius of the Civic Memorial Arpt (Lat 38°53'28''N, Long. 90°03'02''W) and within 2 mi each side of the 009° bearing the Civic Memorial Arpt extending from the 5 mi radius zone to 7 mi N of the arpt and within 2 mi each side of the 103° bearing fromthe Civic Memorial Arpt extending from the 5 mi radius zone to 8 miles east of the arpt from 0700-2300 hrs, local time daily.

CHICAGO-HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-O'HARE INTL TWR: MM component ILS rnwy 14L shutdown until aprxly Sept 15 for rnwy constr.

CHICAGO-O'HARE INTL ARPT: Constr on NW end of rnwy 14L-32R in progress until aprxly Oct 10.

INDIANA

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope rnwy 21 shutdown until Sept due rnwy constr.

IOWA

DES MOINES MUNI ARPT: Apch lgts and sequence flashers will be shutdown during daylgt hrs week days until aprxly June 28. (6-9)

WATERLOO MUNI ARPT TWR: June 1, ILS serving rnwy 12 shutdown UFN for relctn of lclzr.

ROCK RAPIDS MUNI ARPT: Clsd due constr until aprxly Aug 1. (6-9)

WATERLOO MUNI ARPT: Due constr 600' SE end of rnwy 12-30 clsd UFN, usable length of rnwy 4800' threshold lgts will be displaced 600'.

KANSAS

GOODLAND MUNI ARPT: Rnwy 8-26 and 1000' extension to SE end rnwy 13-31 clsd Aug 1.

HUTCHINSON MUNI ARPT TWR: ILS lclzr and glide slope will be shut down June 23-24 and June 27-28 dalgt hrs only for installation of dual monitors.

OLATHE CITY ARPT: NW/SE rnwy clsd for repairs UFN.

KENTUCKY

✓LEXINGTON, BLUE GRASS FLD TWR: June 30, ILS LMM serving rnwy 4 permly decmsnd.

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope (rnwy 29) will be shut down June 28 UFN due rnwy constrn. Lclzr will be shut down intermittently on day by day basis.

✓LOUISVILLE, STANDIFORD FLD TWR: June 30, ILS LMM serving rnwy 29 permly decmsnd.

LOUISIANA

BATON ROUGE, RYAN ARPT TWR: June 20, ILS lclzr and glide slope will be shut down until aprxly July 15.

GRAND ISLE RDO: June 10, H facility will be shutdown until aprxly June 30 for replacement of cables and modulator. (6-9)

NEW ORLEANS LAKE FRONT ARPT: Mound of sand N end of rnwy 35, 1200′ long 800′ wide. Rnwy 17 528′ tmpry displaced threshold until July 1. 175′ boom will be operg in area of apch end rnwy 4 aprxly 300′ W of rnwy 4 aprxly July 15. Rnwy 4-22 clsd except for tkof to NE. Rnwy 31 threshold displaced 637′ N. Rnwy length between threshold reduced to 3163′. Sandbar extends into Lake Pontchartrain aprxly 100′ N of apch end of seaplane ramp. Use extreme caution apchg ramp. (6-9)

NEW ORLEANS INTL ARPT (MOISANT FLD): Caution indg rnwy 1, apch end aprxly 18 inches lower than rnwy level, rnwy length reduced to 6850′, 125′ drag line W of rnwy, until aprxly Aug 15.

MAINE

MILLINOCKET MUNI ARPT: Acft using rnwys 16-34 and 11-29 not visible to each othr until apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4-22 and 15-33 not visible to each other until apchg intersection.

✓PORTLAND MUNI ARPT: June 30, ILS LMM decmsnd. (6-23)

WATERVILLE, LAFLEUR ARPT: Rnwy 5 under constr until aprxly July 1, being extended on SW end.

MARYLAND

✓BALTIMORE, FRIENDSHIP INTL ARPT TWR: June 30, ILS LMM rnwy 10 decmsnd.

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200′.

TOWSON: 10′ balloon ascending 1000′ per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

✓MASSACHUSETTS: June 30, the following LMMs decmsnd at the following airports: Boston-Logan, Hyannis-Barnstable, Nantucket meml, New Bedford and Bedford, Hanscom. (6-23)

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BEDFORD, LAURENCE G. HANSCOM FLD: Moored balloon 5 NM SW of fld, 3000′ AGL hoisted hourly during VFR conditions dalgt hrs til Sept 20. Cable marked with small balloons.

ORANGE MUNI ARPT: Summer operns in efct Apr 1-Dec 15. Use paved areas only. All rnwys open.

MICHIGAN

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900′ smoke stack 3 mi NW.

DETROIT, METROPOLITAN WAYNE COUNTY ARPT: June 28, FSS will be relctd to Detroit City Arpt.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200-1800 EST within 1 mi radius of lat 45°58′00″N long 83°47′30″W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

FLINT, BISHOP ARPT: Until Aug 31, resurfacing of rnwys in progress. (6-9)

LAKE MARGRETHE: Restricted area R-4202 will be effective June 3-July 2, 1966 and July 9-Aug 6, 1966.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000′ AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000′ AGL.

OWOSSO CITY ARPT: Obstn lgts inop on 210′ twr lctd 5 mi SE.

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500-1630 CST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)

MINNESOTA

DULUTH INTL ARPT: VASI being installed rnwy 9 and rnwy lgts both sides of rnwy 9-27 work in progress until aprxly Aug 1. (6-9)

DULUTH INTL ARPT: Radar portion apch and dptr ctl will be shutdown til aprxly July 5 for maintenance.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

MINNEAPOLIS, ANOKA COUNTY JANES FLD: E end of E/W rnwy under constr until aprxly July 15. (6-9)

MORA MUNI ARPT: Rnwy 11-29 clsd due constr until spring.

RED WING MUNI ARPT: Clsd for constr until aprxly July 1.

MISSISSIPPI

CROSBY MUNI ARPT: Rotating bcn inop UFN.

HATTIESBURG MUNI ARPT: Rnwys 13-31 and 8-26 clsd until Sept 1966.

✓MERIDIAN, KEY FLD TWR: June 30, ILS LMM serving rnwy 1L decmsnd.

MISSOURI

KANSAS CITY RDO: June 27, VORTAC wil be shutdown until aprxly July 1.

MONTANA

BUTTE, SILVER BOW COUNTY ARPT: Rnwy lgts rnwy 2-20 inop until aprxly July 1966. (2-17)

DRUMMOND RDO: May 31 VOR will be shut down til aprxly July 1.

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

LIVINGSTON, MISSION FLD: First 1200′ rnwy 32 clsd until aprxly July 15, 1966.

MISSOULA COUNTY ARPT: Rnwy 7-25 E 2534′ clsd until aprxly July 1, 1966.

WEST YELLOWSTONE ARPT: Unattended and without lgtg.

NEBRASKA

COLUMBUS MUNI ARPT: Constr on 1000′ extension to NW end rnwy 14-32, NW 400′ of present rnwy tmprly clsd, usable length avbl 3600′.

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56′50″N, long 98°31′15″W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000′ AGL Mon-Fri 1400-2230Z until further notice.

KEARNEY MUNI ARPT: July 6, rnwy 18-36 will be clsd til aprxly July 20 for resurfacing.

NEVADA

LOVELOCK, DERBY FLD: One or two moored balloons 12′ in diameter in enshrouding parachute will be operating about 17 nmi W from 8AM to 9PM local standard time until March 31, 1967. Surface to 6700′ MSL or 2500′ above test site. Balloons equipped with red flashing lights at ngts.

RENO: National Soaring Championship will be conducted June 28 thru July 7 at Stead AFB, 11 mi NW Reno Muni Arpt.

NEW HAMPSHIRE

LANCASTER, GRABOR ARPT: Clsd UFN—constrn.

MANCHESTER, GRENIER FLD TWR: July 1, FAA will assume opern on 24 hr basis.

NEW JERSEY

✓NEW JERSEY: June 30, ILS LMMS decmsnd at following arpts: Atlantic City (NAFEC) Pomona rnwy 13; Newark—rnwys 4 and 22; Teterboro—rnwy 6.

ATLANTIC CITY, BADER ARPT: Banner towing operns 1000-dusk til Nov 1.

ATLANTIC CITY, NAFEC/ATLANTIC CITY (POMONA) ARPT: Rnwy 13-31 clsd June 1 to aprxly July 15. VASI lgts operg intermittently rnwy 13. Not authorized for civil use.

MORRISTOWN MUNI ARPT: Rnwy 5-23 clsd SS-SR except departing pure jets UFN. (3-17)

OCEAN CITY MUNI ARPT: Open dalgt operns only. No refueling or other services available due constr UFN.

READINGTON, SOLBERG-HUNTERDON ARPT: Rnwys 1-28, 13-31, 14-32 and all grass areas closed.

NEW MEXICO

✓ALBUQUERQUE, SUNPORT/KIRTLAND AIRPORT: June 30, ILS LMM decmsnd.

CARLSBAD: An abandoned arpt lctd adj to VOR bldg; strip dangerous—should not be used.

SANTA FE MUNI ARPT: Rnwy 1-28 clsd til aprxly July 1 for resurfacing.

NEW YORK

✓NEW YORK: June 30, ILS LMMs decmsnd at following arpts: Albany County; Elmira, Chemung County; New York, John F. Kennedy Intl—rnwys 4R and 22L; Niagara Falls Muni.

HORNELL MUNI ARPT: Maintain 2500′ MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constrn N end rnwy.

NEW YORK JOHN F. KENNEDY INTL ARPT TWR: Glide slope serving rnwy 31R will be shutdown thru July 1 for arpt constr.

NEW YORK, JOHN F. KENNEDY INTL ARPT: Rnwy 31R usable 7884′. Rnwy 13L usable 6884′.

NEW YORK, LA GUARDIA ARPT: Rnwy 13 VASI inop UFN.

NEW YORK, LA GUARDIA ARPT: Due to constrn rnwy 13 lndg and take off length 5971′. Rnwy 31 tkof length 5971′ with displaced threshold 173′ NW, rnwy 31 lndg length 5813′. Rnwy 4-22 usable length 7000′. Rnwy 4 lndgs and rnwy 22 departures clsd to all turbojet acft operns.

WHITE PLAINS, WESTCHESTER COUNTY ARPT: Apch lgtg sys with sequenced flashg lgts (rnwy 16) shortened to 1730′ until aprxly June 15, due reconstrn outer portion.

WARWICK ARPT: Rnwy 3-21 clsd til aprxly July 15 for resurfacing. Rnwy 8-26 usable length 1300′ as mrkd.

NORTH CAROLINA

CHARLOTTE RDO: July 7, VORTAC will be shut down til aprxly July 9. DME will be shut down July 7 til aprxly July 15.

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500′ pattern from the west.

NORTH DAKOTA

MINOT, FLYING RANCH ARPT: Lgtg facils inop.

NEWTOWN ARPT: New arpt clsd; under constr.

WASHBURN MUNI ARPT: All lgtg facils inop.

OHIO

✓OHIO: June 30, ILS LMMs decmsnd at following arpts: Akron, Canton; Cincinnati, Greater Cincinnati—rnwys 18 and 36; Cleveland—Hopkins Intl rnwy 27R; Columbus, Port Columbus—rnwys 10L and 28L; Dayton, Cox-Dayton Muni; Mansfield Muni; Toledo, Express; Youngstown Muni.

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constrn SE end rnwy 5 until fall 1966.

ST. CLAIRSVILLE, ALDERMAN FLD: Rotating bcn inop.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400–2300 UFN.

OKLAHOMA

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: Rnwy 17L–35R clsd all operns. (3–17)

OKMULGEE MUNI ARPT: Rnwy lgts inop.

OREGON

NORTH BEND ARPT: About 12 nmi NNE a moored aluminum colored V shaped balloon 75′ long, approximately 40′ diameter being used in logging operns during dalgt hrs, maximum alt 1000′ MSL. During hrs darkness will be lowered to 100′ AGL.

PENNSYLVANIA

✓PENNSYLVANIA: June 30, ILS LMMs decmsnd at following arpts: Allentown, Bethlehem-Easton rnwy 6; Erie, Port Erie; Harrisburg, York State rnwy 8; Philadelphia Intl rnwy 9; Pittsburgh, Allegheny County rnwy 27; Pittsburgh, Greater Pittsburgh rnwys 10L and 28L; Reading, General Spaatz Fld rnwy 36; Wilkes-Barre, Scranton rnwy 4.

ALTOONA RDO: Aug 18, VORTAC will be shut down til aprxly Aug 28—major repairs.

BUTLER, GRAHAM FLD: Extensive glider operns wkends and occasionally during week. Operns will take place off to side of rnwy UFN.

CONNELLSVILLE ARPT: No fuel UFN. Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

MONOGAHELA, THOMPSON MEML ARPT: Clsd until aprxly Sept. 1966 due constr.

PITTSBURGH, GREATER PITTSBURGH ARPT TWR: ILS rnwy 28L shut down til aprxly July 20 due construction arpt.

PUNXSUTAWNEY MUNI ARPT: E/W rnwy clsd for construction til aprxly June.

TITUSVILLE ARPT: Clsd due constrn UFN.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000′ from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.–Thornhurst–Wilkes-Barre.

YORK ARPT: Auto racing rnwy 16–34 Sats 1500–2400 lcl time til Sept 24. Unicom ctc required to clear rnwy.

RHODE ISLAND

✓PROVIDENCE, GREEN ARPT TWR: June 30, ILS LMM decmsnd.

SOUTH DAKOTA

BRITTON MUNI ARPT: Arpt clsd for rnwy constrn until aprxly Aug 1.

REDFIELD INC ARPT: NW/SE and E/W rnwys clsd til aprxly Aug 13.

TENNESSEE

CHATTANOOGA RDO: June 20, VOR will be shutdown until aprxly June 22. DME will be shutdown June 20 til aprxly June 24.

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constrn.

LEWISBURG, ELLINGTON ARPT: Rotating Bcn inop UFN.

ROGERSVILLE, STIPES STRIP: Clsd UFN.

TEXAS

✓TEXAS: June 30, ILS LMMs decmsnd at following arpts: El Paso Intl; Lubbock Muni.

BEEVILLE, CHASE (NAAS) FLD: Rnwy 13R–31L clsd til aprxly Oct due constrn.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13–31 clsd.

CORPUS CHRISTI RDO: June 27, DME shut down til aprxly July 8.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1–19 clsd til aprxly Jul 1.

MIDLAND ARPK: Rnwy 7 threshold displaced 434′ for lndg rnwy 11 threshold displaced 662′ for lndg.

PALESTINE MUNI ARPT: Tethered balloon operg SR–SS within grounds of National Scientific Balloon Flight Station at 525′ AGL til aprxly July.

WICHITA FALLS, SHEPPARD AFB/WICHITA FALLS AIR TRML: N 3000′ rnwy 17–35 clsd.

UTAH

DELTA MUNI ARPT: Rnwy 16–34 clsd til aprxly mid Aug due resurfacing.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100′ higher than canyon rim.

VERMONT

VERMONT: The flwg arpts will be plowed and open winter months: Enosburg Falls, Newport and St. Johnsbury Muni.

✓BURLINGTON MUNI ARPT TWR: June 30, LMM decmsnd.

VIRGINIA

✓VIRGINIA: June 30, ILS LMMs will be decmsnd at following arpts: Lynchburg, Muni-Preston Glenn Fld; Newport News, Patrick Henry; Norfolk Muni; Richmond, Richard E. Byrd Flying Fld.

BLACKSBURG, VPI ARPT: New NW/SE rnwy under constrn til aprxly Fall 1966. Proposed dimension 4200 x 100′.

DUBLIN, NEW RIVER VALLEY ARPT: First 200′ rnwy 23 unusable due rnwy extension in progress UFN.

GORDONSVILLE RDO: June 27, DME will be shut down til aprxly July 2; VOR will be shut down June 28 for 10 hrs due DME mod.

LINDEN RDO: June 15, VORTAC will be shutdown until aprxly June 30.

RICHMOND, BYRD FLD TWR: June 15, ILS glide slope shutdown until aprxly June 28 for mod.

WASHINGTON

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800–1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

WEST VIRGINIA

✓WEST VIRGINIA: June 30, ILS LMMs decmsnd at following arpts: Charles, Kanawha; Huntington, Tri-State (Walker Long Fld); Wheeling, Ohio County.

WISCONSIN

MADISON, TRUAX FLD: Until aprxly Aug, rebuilding E/W txwy.

MILWAUKEE, GENERAL MITCHELL FLD: Rnwy 31 clsd acft over 30,000 lbs. Loose pieces pavement 4000′ from apch end rnwy 13.

MILWAUKEE RDO: Rbn will be shut down July 5 to July 8 for relctn to General Mitchell ILS OM site rnwy 7R. Ident will be GM. Class: H-SAB/LOM.

SPOONER MUNI ARPT: Clsd.

WYOMING

CAMP GUERNSEY: Restricted Area R-7001 in use July 9 and 10. 0400–2400 MST from surface to 2350′. Ctc Casper Rdo for release info during period.

JACKSON RDO: VOR comsng delayed.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

SHERIDAN COUNTY ARPT: Til aprxly Jul 1, rnwy 31 threshold lgts displaced 600′ SE end. 5448′ avbl lndg rnwy 31 and tkof rnwy 13. 6048′ avbl lndg rnwy 13 and tkof rnwy 31.

PUERTO RICO

CHARLOTTE AMALE-ST. THOMAS, HARRY S TRUMAN ARPT: Til Oct 15, constrn work in progress lengthening rnwy. Vehicles operg in apch to rnwy 9 and on N edge and E end rnwy 27. Areas mrkd and lgtd.

U. S. GOVERNMENT PRINTING OFFICE : 1966 O - 220-301

AIRMAN'S INFORMATION MANUAL

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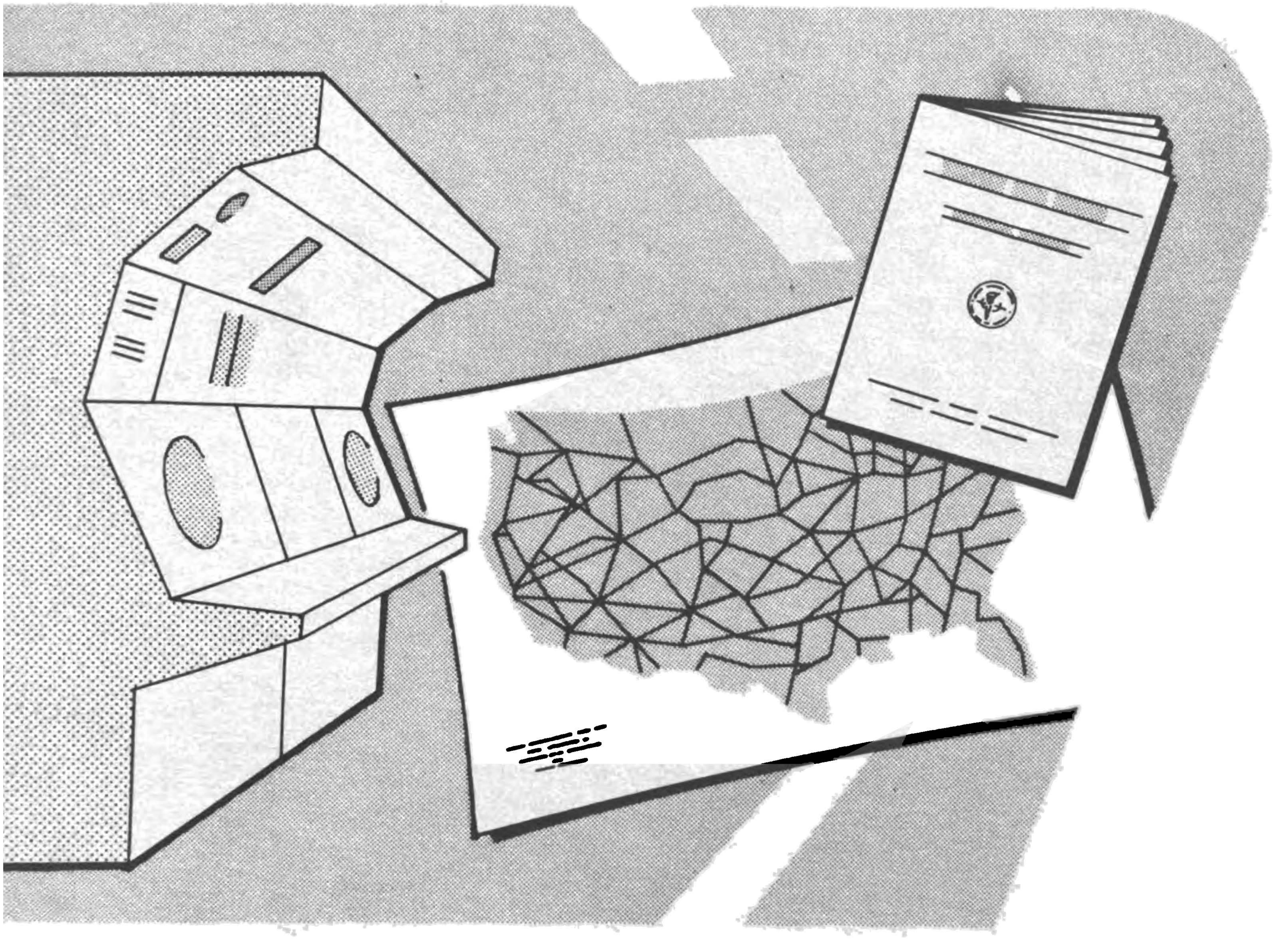
PART 3



Effective
21 JULY 1966
To 18 AUGUST 1966

OPERATIONAL DATA AND NOTICES TO AIRMEN

AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately. Highlights of each part are described below.

PART 1

Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PART 2

Airport Directory

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are open to the general public. It includes all of their facilities and services, *except communications*, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities.

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Operational Data and Notices to Airmen

Part 3 is issued every 28 days and contains a Master Alphabetical Index covering all Parts of the AIM; an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Parachute Jump Areas; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Restrictions to Enroute Navigation Aids; VOR Receiver Check Points; Special General and Area Notices; New and Permanently Closed Airports, and Oil Burner Routes.

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Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT–430, Washington, D.C. 20553.

TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

Abbreviations ---- 3-iv
Address, Change of (See Notice of Editor) ---- 3-57
Airport/Facility Directory Legend ---- 3-vii
Airport/Facility Directory ---- 3-1
Airports, New and Permanently Closed ---- 3-124
Air Route Traffic Control Center Communications Frequency ---- 3-45
Boeing Low Level IFR Operations ---- 3-128
Chicago Terminal Area Chart ---- 3-121
Dates of Latest Editions ---- 3-150
DME at ILS Locations ---- 3-107
Expanded Radar Service for Arriving and Departing Flights ---- 3-122
Flight Information Publication Policy ---- 3-102
FSS and Weather Bureau Telephone Numbers ---- 3-47
Low Altitude VFR Military Operations ---- 3-128
Master Alphabetical Index ---- 3-i
Military Aerial Refueling Tracks ---- 3-127
Notices to Airmen ---- See Part 3-A
Notice to Editor ---- 3-57
Oil Burner Routes ---- 3-130
Parachute Jumping Areas ---- 3-60
Part-time Controlled Airspace Designation ---- 3-105
Part-time Manned Facilities and AIDS ---- 3-106
Preferred Routes ---- 3-66
Publication Schedule ---- 3-59
Radio Class Designation ---- 3-x
Restrictions to Enroute Navigation Aids ---- 3-87
Runway Gradient ---- 3-107
Sectional Chart Bulletin ---- 3-80
Simultaneous Opposite Direction Operations on Parallel Runways ---- 3-104
Special Notices ---- 3-102
    General (Notices with universal application) ---- 3-102
    Area Notices (by state, city, etc.) ---- 3-108
Special Use Airspace ---- 3-127
Standard Instrument Approach Procedures Actions ---- 3-148
Standard Instrument Departures (SIDs) ---- 3-73
Substitute Route Structure ---- 3-76
VOR Receiver Check Points ---- 3-94

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetic Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. The Part number is in bold type.

A

Part and Page

Abbreviations 3–iv
Address, Change of (See Notice to Editor) 3–57
ADIZ and Designation Mountainous Areas Chart 1–85
ADIZ Procedures 1–83
Advisory Information, VFR 1–72
Advisory Service, Jet 1–58
Aeronautical Advisory Stations (UNICOM) 1–74
Aeronautical (Light) Beacons 1–17
Aeronautical charts, Dates of Latest 3–150
Aeronautical Information and the National Airspace System 1–24
Aeronautical Multicom Service 1–74
Aeronautical Publications 1–48
Aeronautical Terms, Glossary of 1– 1
(AID), Airport Information Desk 3–106
AIM Publication Schedule 3–59
Aircraft Call Signs 1–21
Aircraft Fuel 2, 3
Aircraft Storage/Repair 2, 3
AIRMETS and SIGMETS 1–32
Air Navigation Radio Aids 1– 7
Airport Advisory Service (Non-Radar) 1–72
Airport, Air Navigation Lighting and Marking Aids 1–17
Airport Directory 2–1
Airport Elevation 2, 3
Airport/Facility Directory 3– 1
Airport Identifying Code 1–18
Airport, IFR 2 & 3
Airport Information Desk (AID) 3–106
Airport, Lighted Land 1–17
Airport, Lighted Water 1–17
Airport Lighting Facilities 1–17, 2 & 3
Airport Marking Aids 1–19
Airport, Military (Lighting) 1–18
Airports of Entry 1–81, 2 & 3
Airport Runway Data 2, 3
Airports, New and Permanently Closed 3–124
Air Rescue Centers 1–91
Air Traffic Control Radar Beacon System (ATCRBS) 1–16, 1–62
Airway Beacons 1–18
Airway/Route Systems 1–57
Airway/Route Course Changes 1–58
Alcohol 1–41
Altimetry 1–30
Altitudes, Traffic Pattern 2
Alphabet, Phonetic 1–23
Approach Control 1–74
Approach Light System, Instrument 1–18
Approach Procedures Actions, Instrument 3–148
Area Notices 3–108
Arrival 1–72
ARTCC Communications Frequencies 3–45
ATC Clearance 1–54

Part and Page

(ATIS) Automatic Terminal Information Service 1–72, 3
Auxiliary Lights 1–17

B

Beacon, Airway 1–18
Beacon, Aeronautical (Light) 1–17
Beacon, Marker 1–10
Beacon Operation, Daylight 1–18
Beacon, Radio 1– 7
Beacon, Rotating 1–17
Beacon, Standards (deviations from) 1–18
Bird Hazards 1–44
Broadcast Stations, Commercial 2–225
Bulletin, Section Chart 3–80

C

Call Signs, Aircraft 1–21
Call Signs, Ground Stations 1–21
Carbon Monoxide 1–42
Ceiling 1–1, 1–33
Change of Address (Notice to Editors) 3–57
Changeover Points (VOR) 1–64
Chart Bulletin, Sectional 3–80
Charts, Dates of Latest Prints 3–150
Chart, Oil Burner Route 3–130
Chart, ADIZ and Mountainous Area 1–85
Civil Use of Military Fields 3–103
Clear Air Turbulance 1–33
Clearance, ATC 1–54
Climbing/Descending Aircraft 1–65
Cloud Heights, Reporting of 1–33
Code, NOTAM 1–25
Collision Reporting, Near Mid-Air 1–40
Commercial Broadcast Stations 2–225
Communications, Direct Pilot/Controller 1–69
Communications, Enroute 1–66
Communications Failure 1–92
Communications Frequencies, ARTCC 3–45
Compass Locator, ILS 1–11
Composite Flight Plan (VFR/IFR) 1–49
Consolan 1–14
Contact Procedure, Radio Telephone 1–21
Continental Control Area 1–58
Crash Locator Beacon 1–90
Cruising Altitudes, Enroute 1–71

D

Departure 1–53
Departure Communications 1–53
Departure Control 1–56
Departure, Standard Instrument (SID) 1–55, 3–73
Designated Mountainous Areas chart and ADIZ 1–85
Designation, Radio Class 3–x
Detouring Thunderstorms 1–36
Direct Communications, Controllers/Pilots 1–69
Direct Flights 1–51
Direction Finder (VHF/UHF) 1–14

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Directional Reporting 1-64
Distance Measuring Equipment (DME) 1-8
Drugs 1-41

E

Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1-89
Emergency Signals (Visual) 1-96
Enroute 1-57
Enroute Communications 1-66
Enroute Cruising Altitudes 1-71
Entry and Departure Requirements, U.S. 1-80
Expanded Radar Service for Arriving and Departing Flights 1-73, 1-127

F

FAA and NORAD Chart 1-88
Fatigue 1-41
Figures 1-22
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-102
Flight Information Publication Policy 3-102
Flight Service Stations/Weather Bureau Offices 3-47
Flight Standard District Offices 1-97
Frequency Pairing Plan 1-9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-93

G

General Notices 3-102
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1-1
Good Operating Practices 1-5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H

Hand Signals 1-79
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-217
Holding 1-60
Hypoxia 1-41

I

IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-75
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-148
Instrument Departures (SID's), Standard 1-55, 3-73
Instrument Runway 1-20
Interception Pattern for Identification of Transport Aircraft 1-87
Interception Signals, U.S. 1-86

J

Jet Advisory Service 1-58

K

Key to Aviation Weather Reports 1-36

Part and Page

L

Lake, Island and Mountain Reporting Service 1-66
Landing 1-78
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-78
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-128

M

Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-79
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-127
Mountainous Area Chart and ADIZ 1-85

N

National Search and Rescue Plan 1-90
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-124
NORAD Chart, FAA and 1-88
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-57
Notices, Area 3-108
Notices, Special 3-102
Notices to Airmen 3A

O

Oil Burner Routes 3-130
Omnidirectional Range (VOR) 1-7
Operational Limitations VOR/VORTAC/TACAN 1-9

P

Panic 1-43
Parachute Jumping Areas 3-60
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-105
Part-time Manned Facilities and AIDS 3-106
Permanently Closed Airports, New and 3-124
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-66
Positive Control Area 1-58
Precision Approach, Radar 1-15
Preferred Routes 3-66
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-102
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-59

R

Radar 1-15
Radar Assistance to VFR Aircraft 1-65
Radar Beacon System (ATCRBS) 1-62
Radar Controlled Approaches 1-15
Radar Enroute Service 1-59
Radar Monitoring of Instrument Approaches 1-76
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-12, 1-73
Radio Beacon 1-7
Radio Class Designation 3-x
Radio Communications Failure 1-92

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radio Interference ... 1-14
Radio Range L/MF ... 1- 7
Radiotelephone Phraseology and Techniques ... 1-21
Receiver Check Points, VOR ... 1-8, 3-94
Refueling Tracks, Military Low Altitude Aerial ... 3-127
REIL, Runway End Identifiers ... 1-19, 2, 3
Repair, Aircraft ... 2, 3
Reporting, Directional ... 1-64
Reporting Service, Lake, Island and Mountain ... 1-66
Restricted Airspace ... 1-65
Restrictions to Enroute Navigation Aids ... 3-87
Rocky Mountain Reporting Service ... 1-68
Rotating Beacon ... 1-17
Runway End Identifiers (REIL) ... 1-19, 2, 3
Runway, Longest ... 2, 3
Runway Marking ... 1-19
Runway Surface ... 2, 3
Runway Visibility (RVV) ... 1-34
Runway Visual Range (RVR) ... 1-34
Runway Weight Bearing Capacity ... 2, 3

S

Safety of Flight (Wake Turbulence) ... 1-37
SCANTANA Procedures ... 1-83
Scheduled Weather Broadcasts ... 1-31
Scuba Diving ... 1-43
Seaplane Bases ... 2-212
Search and Rescue ... 1-90
Sectional Chart Bulletin ... 3-80
Sectional Charts, Dates of latest prints ... 3-150
SIDs (Standard Instrument Departures) ... 1-55, 3-73
SIGMET (Significant Meteorology), AIRMETS ... 1-32
Signals, Emergency ... 1-95
Signals, (Visual), Emergency ... 1-96
Signals, Light ... 1-53
Simultaneous Voice Transmissions from a
  Single Location ... 1-12
Special Notices ... 3-102
Special Use Airspace ... 1-70, 3-127
Special VFR Flight Clearance Procedures ... 1-54
Speed Adjustment of Arriving Aircraft ... 1-77
Standard Instrument Approach Procedures
  Actions ... 3-148
Standard Instrument Departures (SIDs) ... 1-55, 3-73
Storage, Aircraft ... 2, 3
Substitute Route Structure ... 3-76
Surveillance Radar ... 1-15

Part and Page

T

TACAN ... 1- 8
Terminal Radar Service ... 1-74
Thunderstorms ... 1-36
Time ... 1-22
Traffic Information Service, Radar ... 1-73
Traffic Pattern Altitudes ... 2
Traffic Pattern Direction, Landing ... 1-78
Transcribed Weather Broadcasts ... 1-31
Turbulence, Clear Air (CAT) ... 1-33
Turbulence, Wake ... 1-37
Two-Way Radio Communications Failure ... 1-92

U

UNICOM (Aeronautical Advisory Station) ... 1-74, 2, & 3
U.S. Entry and Departure Requirements ... 1-80

V

VASI (Visual Approach Slope Indicator) ... 1-19
Vertigo ... 1-42
VFR Advisory Information ... 1-72
VFR Conditions on Top ... 1-51
VFR Flight Clearance Procedures ... 1-55
VHF UHF Direction Finder ... 1-14, 3
Visibility, Observations ... 1-34
Vision ... 1-42
Visual Approach Slope Indicator (VASI) ... 1-19
VOR ... 1- 7
VOR Changeover Points ... 1-64
VOR Receiver Check Points ... 1-8, 3-94
VORTAC ... 1- 8
VOT (VOR Test Signal) ... 1-8, 3

W

Wake Turbulence ... 1-37
Warning Areas ... 1-70
Weather ... 1-31
Weather Briefing ... 1-49
Weather Broadcasts Format ... 1-32
Weather Broadcast, Scheduled ... 1-31
Weather Broadcast, Transcribed ... 1-31
Weather Broadcast, Unscheduled ... 1-32
Weather Bureau Offices/Flight Service Stations ... 3-47
Weather Radar ... 1-34
Weather Advisories, In-Flight ... 1-32

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in additionto frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense VFR Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	groundcontrolled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend from Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical raditors), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum enroute IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmis-
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omnidirectional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omnidirectional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (−) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, clay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S–000).

S–Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC–3), etc.

T–Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC–6), etc.

TT–Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T–).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

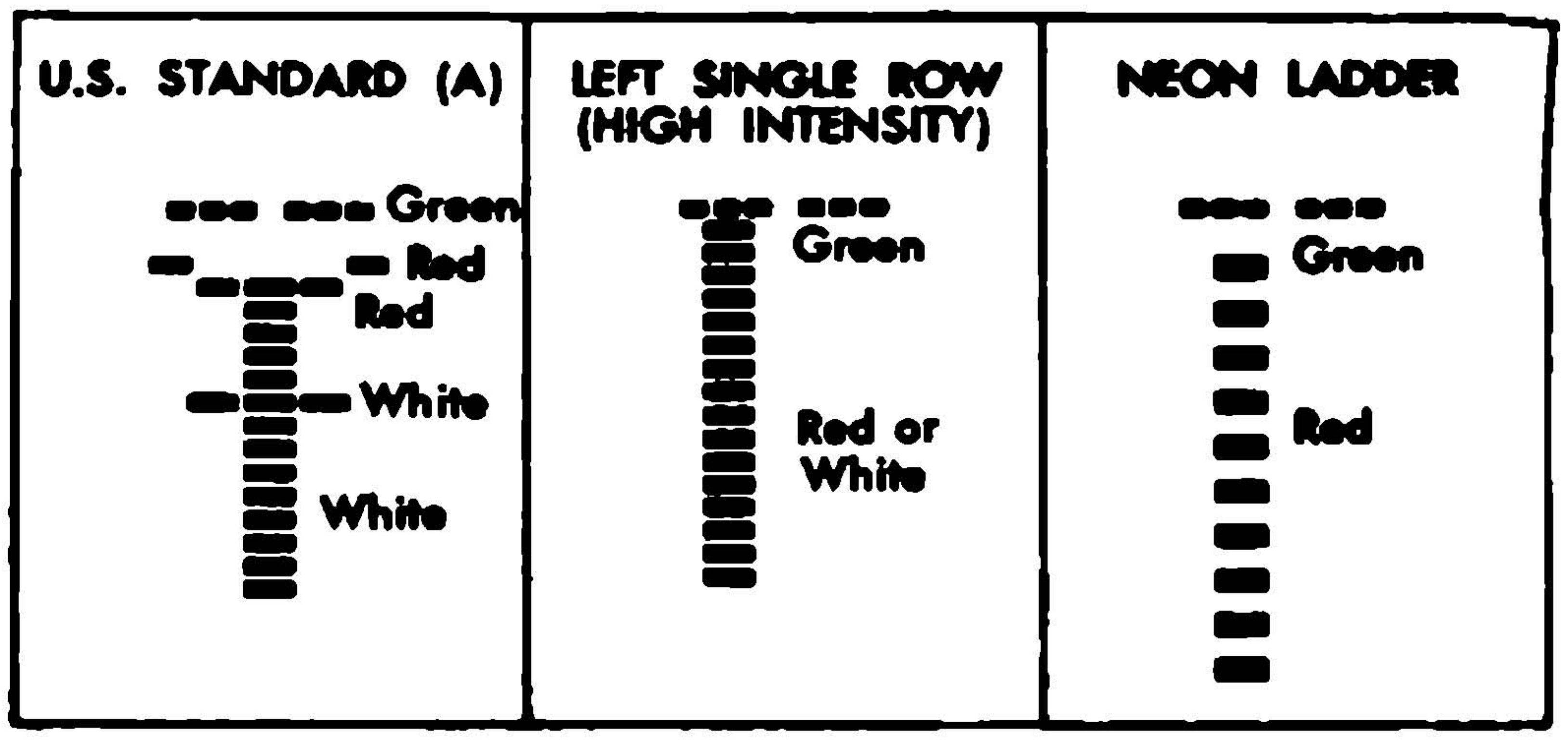
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting (when code **L4–7** is indicated, lighting **4, 5, 6, 7** is available). An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000′ out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)
13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	80 oct., at least.
F2	80/87 oct., or lower.
F3	91/96 oct., or lower.
F4	100/130 performance rating, or lower.
F5	115/145 performance rating, or lower.

TURBINE FUELS

TP–1	650 turbine fuels for civil jets.
JP–1	(Kerosene), **JP–3, JP–4, JP–5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25–September 26 and April 25–October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.
VASI—Visual Approach Slope Indicator, applicable runway provided.
RVV—Runway Visibility Values, applicable runway provided.
RVR—Runway Visual Range, applicable runway provided.
FSS—The name of the controlling FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481–5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"FEE" indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"Rgt tfc 13–31" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a cross-out: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

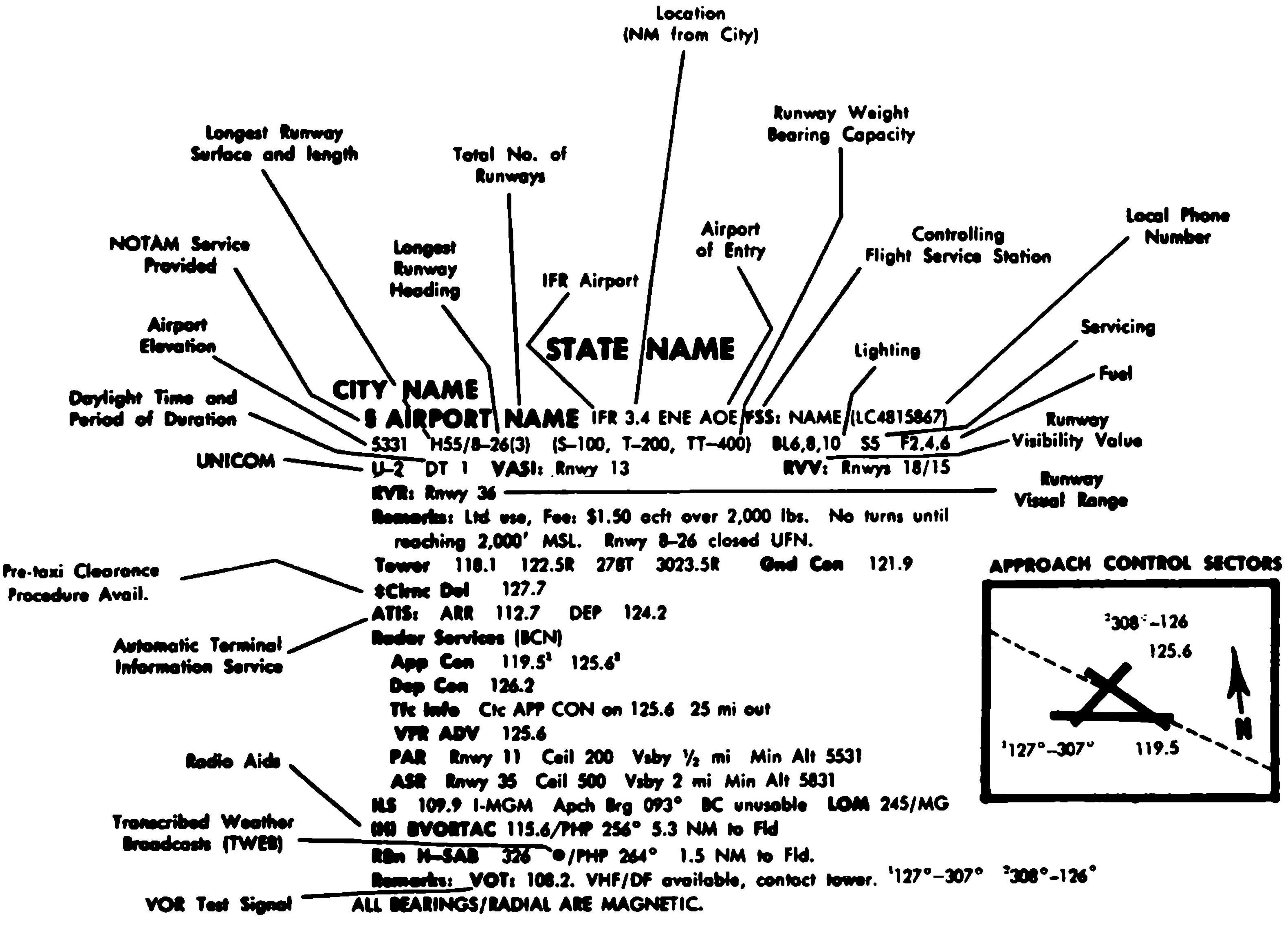
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U–1—122.8 mc (at airports without a control tower).

U–2—123.0 mc (at airports with a control tower). tower).

SAMPLE


Location (NM from City)
Longest Runway Surface and length
Total No. of Runways
Runway Weight Bearing Capacity
NOTAM Service Provided
Longest Runway Heading
Airport of Entry
Controlling Flight Service Station
Local Phone Number
IFR Airport
Airport Elevation
Servicing
Lighting
Fuel
Daylight Time and Period of Duration
Runway Visibility Value
UNICOM
Runway Visual Range
Pre-taxi Clearance Procedure Avail.
Automatic Terminal Information Service
Radio Aids
Transcribed Weather Broadcasts (TWEB)
VOR Test Signal
APPROACH CONTROL SECTORS
^{2}308°–126
125.6
^{1}127°–307°
119.5
N

STATE NAME

CITY NAME

§ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC4815867)
5331 H55/8–26(3) (S–100, T–200, TT–400) BL6,8,10 S5 F2,4,6
U–2 DT 1 **VASI:** Rnwy 13 **RVV:** Rnwys 18/15
RVR: Rnwy 36
Remarks: Ltd use, Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000′ MSL. Rnwy 8–26 closed UFN.
Tower 118.1 122.5R 278T 3023.5R **Gnd Con** 121.9
§Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
App Con 119.5^1 125.6^2
Dep Con 126.2
Tfc Info Ctc APP CON on 125.6 25 mi out
VFR ADV 125.6
PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° BC unusable **LOM** 245/MG
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H–SAB 326 ●/PHP 264° 1.5 NM to Fld.
Remarks: VOT: 108.2. VHF/DF available, contact tower. ^{1}127°–307° ^{2}308°–126°
ALL BEARINGS/RADIAL ARE MAGNETIC.

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000′ MSL	115.2 smi (100 nmi)
L	Up to 18,000′ MSL	46.06 smi (40 nmi)
T	Up to 12,000′ MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

NOTE: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiators), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600–2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

ALABAMA

ANNISTON (L) BVOR 108.8/ANB **FSS:** ANNISTON
RBn BMH [1]278/ANB
Remarks: [1]For use within 10 mi stn ADF apch only.

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§BIRMINGHAM MUNI *IFR* 4NE **FSS:** BIRMINGHAM on fld
643 H92/5–23(2) (S–120, T–170, TT–300) BL6,8A,9,10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Jet barrier on overrun rnwy 23. Rnwy threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I–BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) BVORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H–SAB 224●/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H–SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM **FSS:** MOBILE

BROOKWOOD (L) BVOR 111.0/BWA **FSS:** BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU **FSS:** HUNTSVILLE

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§DOTHAN *IFR* 7NW **FSS:** DOTHAN on fld
395 H56/18–36(3) (S–60, T–105, TT–190) BL6 S5 F4 U–1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
VFR ADV: Ctc Cairns APP/DEP CON
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF ctc FSS.

EUFAULA (L) BVOR 109.2/EUF **FSS:** DOTHAN

GADSDEN (L) BVORTAC 112.3/GAD **FSS:** ANNISTON

HAMILTON (L) BVOR 110.4/HAB **FSS:** MUSCLE SHOALS

---

§HUNTSVILLE-MADISON *IFR* 3S **FSS:** MUSCLE SHOALS (DL)
619 H52/18–36 (2) (S–50, T–85, TT–130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I–HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF **FSS:** MONTGOMERY

MOBILE
§BATES FLD *IFR* 9W **FSS:** MOBILE on Fld
217 H78/14–32(3) (S–40, T–150, TT–280) BL4,6,8A,9 S5 F5 JP1, U2 **RVV** Rnwy 14
Remarks: Threshold displaced 1000′ NW runwy 32
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I–MOB Apch Brg 141° BC unusable **LOM:** 248/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn BH 248/MO 140° 4.6NM to fld.
Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090–110° rad. LOM is BH.

ALABAMA—*Continued*

MONROEVILLE **FSS:** MOBILE
(L) BVOR 116.8/MVC

MONTGOMERY
§DANNELLY FLD *IFR* 6SW **FSS:** MONTGOMERY on Fld
221 H90/9–27(3) (S–120, T–170), TT–300) BL4,6,8A,9 S5 F5 JP1 U2 **RVR:** Rnwy 9
Remarks: J–Bar runwy 9–27. Closed to acft heavier than Super G Constellation and DC–7 regardless of wt displacement per wheel.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I–MGM Apch Brg 093° **LOM** 245/MG
VHF/DF ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL **FSS:** MUSCLE SHOALS

REDSTONE (L) VOR 111.2/HUA **FSS:** MUSCLE SHOALS
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM **FSS:** MONTGOMERY

TALLADEGA (L) BVOR 108.4/TAG **FSS:** ANNISTON
Remarks: To be decomsnd July 21.

TUSCALOOSA (L) BVORTAC 117.8/TCL **FSS:** TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE **FSS:** MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK **FSS:** PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG **FSS:** PHOENIX

COCHISE (L) BVORTAC 110.4/CIE **FSS:** DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG **FSS:** DOUGLAS

GRAND CANYON (T)BVOR 109.0/GCN

GILA BEND (H) BVORTAC 116.6/GBN **FSS:** PHOENIX

LIBBY (L) VOR 111.6/FHU **FSS:** DOUGLAS

PEACH SPRINGS (H) BVORTAC 112.0/PGS **FSS:** PRESCOTT

PHOENIX
§SKY HARBOR MUNI *IFR* 3E **FSS:** PHOENIX on Fld
1122 H103/8R–26L(2) (S–100, T–200, TT–370) BL4,10 S5 F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R–26L avbl ngts.
Phoenix Tower 118.7 122.5R 120.9 **Gnd Con** 121.9
Clrnc Del 120.4
Phoenix App Con 118.1 122.5R 115.6T
Phoenix (H) BVORTAC 115.6/PHX 256° 5.3NM to fld.
Phoenix RBn BHZ 326/PHX 264° 1.5NM to fld.
VHF/DF: ctc FSS.
Remarks: **VOT:** 109.0

PRESCOTT (H) BVORTAC 114.1/PRC **FSS:** PRESCOTT

ST. JOHNS (H) BVORTAC 112.3/SJN **FSS:** ZUNI

SAN SIMON (H) BVORTAC 115.4/SSO **FSS:** DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC **FSS:** PRESCOTT

ARIZONA—*Continued*

§TUCSON INTL *IFR* 6S AOE **FSS:** TUCSON on Fld
2630 H120/12L–30R(3) (S–100, T–200, TT–360) BL4 S5
F5, JP1, JP4 U2
Remarks: 5649′ avbl lndg rnwy 3, 6000′ avbl rnwy 21. Jet arresting gear rnwy 12L–30R. 1000′ overrun each end rnwy 12L–30R.
Tower: 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.5 134.1 126.2 125.9 125.1 122.5R
Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.
VHF/DF ctc FSS.
(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.
RBn H–SABZ 338●/TUS 083° 10.6NM to fld.

WINSLOW (H) BVORTAC 112.6/INW **FSS:** PRESCOTT
RBn H–SAB 266●/INW

§YUMA MCAS/INTL *IFR* 3S AOE **FSS:** YUMA on Fld
213 H133 (3L–21R)(4) (S–103, T–225, TT–410) BL4,6 S5 F4
Remarks: Rnwy 17–35 GWT (S–170, T–200, TT–400). Jet arresting gear rnwys 3L–21R, 3R–21L.
Tower 126.2 121.5 122.5R 119.3 **Gnd Con:** 121.9
VHF/DF ctc twr.
(H) BVORTAC 116.8/YUM 167° 6.0NM to fld.
RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH
RBn HW 311/BYH

BRUINS RBn MHW 215/BSA **FSS:** MEMPHIS

CABOT (L) VOR 108.4/CBT **FSS:** LITTLE ROCK
RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT **FSS:** EL DORADO

DRAKE (T) BVOR 108.8/DAK **FSS:** FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD **FSS:** EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV **FSS:** FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP **FSS:** HARRISON

§FORT SMITH MUNI *IFR* 4SE **FSS:** FORT SMITH on Fld
468 H80/7–25(2) (S–90, T–120, TT–) BL4,6,8A,9 S5
F–5, JP–1 U2 **RVV:** Rnwy 25
Remarks: Jet barrier rnwy 7–25.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 125.4 126.2 118.3 110.4T 109.5T 311T[1]
ILS 109.5 I–FSM Apch Brg 254° BC unusable **LOM:** 223/FS
(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.
RBn[1] BMH 311/FSM 161° 9.8NM to fld.
RBn HW 223/FS 254° 6.9NM to fld.
Remarks: LOM is HW. [1]To be decomsnd Aug 18.

HARRISON (L) BVOR 110.8/HRO **FSS:** HARRISON

HOT SPRINGS
§MEMORIAL FLD *IFR* 3SW **FSS:** PINE BLUFF (LC NA 4–4481)
535 H50/5–23(2) (S–35, T–49, TT–78) BL4 S5 F4 JP–1
Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7
Hot Springs App Con 120.3 122.5R 110.0T 248T
Hot Springs (L) VOR 110.0/HOT on fld.
Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK
§ADAMS FLD *IFR* 2E **FSS:** PINE BLUFF (LC FR 6–4348)
257 H70/4–22(3) (S–49, T–173, TT–136) BL4,6,8A,9 S5
F4, JP1, JP4 U2 **RVV:** Rnwy 4
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T

ARKANSAS—*Continued*

Little Rock Dep Con 118.1
Tfc Info All inbnd acft ctc App Con 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I–LIT Apch Brg 041° **LOM:** 219/LI
Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.
Little Rock RBn BH 353/LIT 316° 3.3NM to rnwy 32.
Remarks: [1]001–180° [2]181–360°.

MONTICELLO (L) BVORTAC 111.6/MON **FSS:** PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF **FSS:** PINE BLUFF

ROGERS RBn MHW 263/ROG **FSS:** FAYETTEVILLE

STUTTGART RBn MHW 269/SGT **FSS:** PINE BLUFF
Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK **FSS:** TEXARKANA
RBn SBH 329●/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG **FSS:** WALNUT RIDGE

CALIFORNIA

ARCATA
§ARCATA-EUREKA *IFR* 7NW **FSS:** ARCATA on Fld
217 H60(2)(13–31) (S–90, T–140, TT–260) BL5,6,8A,9,10 · F4 DT2
VASI: Rnwy 13 **RVV:** Rnwy 31
Remarks: Rgt tfc rnwys 13, 19.
ILS 109.5 I–ACV Apch Brg 314° BC unusable **LMM:** 233/CV
VHF/DF ctc FSS.
Remarks: SLMM unusable btn 120–150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE **FSS:** PASO ROBLES

BAKERSFIELD
§MEADOWS FIELD *IFR* 4NW **FSS:** BAKERSFIELD on Fld
488 H57/12L–30R(2) (S–110, T–170, TT–300) BL4,6,8A,9
S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R
Tower 118.1 122.5R **Gnd Con** 121.9
Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8
ILS 109.9 I–BFL Apch Brg 299° **LOM:** 278/BF
VHF/DF ctc FSS.
Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR **FSS:** SALINAS

BLYTHE (H) BVORTAC 117.4/BLH **FSS:** BLYTHE
RBn SABH 251●/BLH

BURBANK
§LOCKHEED AIR TERMINAL *IFR* 3NW **FSS:** LOS ANGELES (DL)
775 H69 (15–33)(2) (S–80, T–150, TT–280) BL5,6,8A,9,11
S5 F5, JP1, JP4 U2 DT2 **REIL** rnwy 15
Remarks: Rnwy 15 displaced threshold 900′. S 6060′ avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ lndg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15–33 lgtd N of rnwy 7–25 only.
Burbank Tower 118.7 122.7R ~~121.6~~ **Gnd Con** 121.9
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
Tfc Info Ctc Burbank App Con 30 NM out on 120.9.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS [2]109.5 I–BUR Apch Brg 076° **LOM:** 272/BU
VHF/DF[1] contact Tower.
Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°–085°; below 4000′ 085°–240°; below 6000′ 240°–320°; below 10,000′ 320–360°. [2]Glide slope unusable below 1075′ MSL.

CAMARILLO RBn HW 359/CAV **FSS:** LOS ANGELES

CALIFORNIA—*Continued*

CASTLE (L) VOR 114.2/MER
RBn MHW 409/ME

CHICO (T) BVOR 109.8/CIC **FSS:** RED BLUFF

COLTON RBn HWZ 397/SB **FSS:** THERMAL

CONCORD
§BUCHANAN FIELD ***IFR*** 1N **FSS:** OAKLAND (DL)
19 H50/1–19(3) (S–60, T–80, TT–130) BL5 S5 DT2 F4
Tower[1] 119.7 122.4R **Gnd Con** 121.9
Radar Services:
Travis App Con 119.9
T–BVOR 110.6/CCR 171° 3.1 NM to fld.
Remarks: [1]Oper 1500–0700Z.

CRESCENT CITY (L) BVORTAC 109.0/CEC **FSS:** CRESCENT CITY

DAGGETT (L) BVORTAC 113.2/DAG **FSS:** DAGGETT

DOWNEY RBn HW 371/DOW **FSS:** LOS ANGELES

EDWARDS (L) VORW 116.4/EDW
RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ
RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW **FSS:** BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM **FSS:** LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS **FSS:** MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT **FSS:** ARCATA

§FRESNO AIR TERMINAL ***IFR*** 5 NE **FSS:** FRESNO on Fld
332 H92/11L–29R(3) (S–50, T–70, TT–140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.
Remarks: Rgt tfc rnwy 7 & 11. Jet barrier arresting gear 11L–29R.
Tower 118.7 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.6 126.9
Dep Con 126.9
ILS 110.3 I–FAT Apch Brg 289° **LOM:** 266/FA
VHF/DF ctc FSS.
(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.
RBn H–SAB 344●/FAT 049° 6.2 NM to fld.

§FRESNO–CHANDLER ***IFR*** 2W **FSS:** FRESNO (DL)
283 H35/11R–29L(2) (S–17 T–TT–) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 11R. Rnwy 29L displaced threshold 730′ NW, rnwy 11R displaced 495′ SE.
Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7
Radar Services: (BCN)
Fresno App Con 119.6 126.9
Fresno Dep Con 126.9
Remarks: [1]Oper 1400–0600Z.

FRIANT (L) BVORTAC 115.6/FRA **FSS:** FRESNO

§FULLERTON MUNI ***IFR*** 3W **FSS:** LOS ANGELES (DL)
96 H31/6–24(1) (S–8, T–, TT–) BL5,11 S5 F4 U2 DT2
REIL: Rnwy 24.
Remarks: Rnwy 6 displaced threshold 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 displaced threshold 263′ W. 2857′ avbl lndg rnwy 24. Rnwy 24 apch restricted by poleline. Rgt tfc rnwy 24. Entry alt 1200′ MSL.
Tower[1] 119.1 122.6R 121.5 **Gnd Con** 121.7
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
Remarks: [1]Oper 1400–0600Z.

CALIFORNIA—*Continued*

GAVIOTA (L) BVORTAC 116.5/GVO **FSS:** SANTA BARBARA

GEORGE (L) VOR 108.6/VCV **FSS:** PALMDALE

GOFFS (L) BVOR 114.4/GFS **FSS:** NEEDLES

GORMAN (L) BVORTAC 116.1/GMN **FSS:** BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

§HAWTHORNE MUNI ***IFR*** 1E **FSS:** LOS ANGELES (DL)
64 H45/7–25(1) (S–30, T–50, TT–) BL4,11 S–5 F4 U2 DT2
REIL[1] rnwy 25
Remarks: Rnwy 7 displaced threshold 1025′ E, 3975′ avbl lndg rnwy 7. Rnwy 25 displaced threshold 475′ W. 4525′ avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. Rnwy 25 apch restricted by pole line. Rgt tfc E. [1]REIL inop 2300–0700. Prior approval rqrd jet powered acft.
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 124.3[2] 125.2[3]
Remarks: [1]Oper 0700–2300 lcl time. [2]045°–224°. [3]225°–044°.

HAYWARD AIR TERMINAL ***IFR*** . 2SW **FSS:** OAKLAND (LC 562–7807)
46 H52/10R–28L(2) (S–100, T–190, TT–290) BL4 S5 F4 DT2
Tower 118.9 122.5R 212T **Gnd Con** 121.7
Radar Services:
Oakland App Con 118.1 116.8T
Oakland Dep Con 124.7 120.9 116.8T
RBn MHW 242/HWD 243° 0.4 to fld
Remarks: [1]Oper 0600–2400 lcl time.

HECTOR (H) BVORTAC 112.7/HEC **FSS:** DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL **FSS:** IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI **FSS:** SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS **FSS:** PALMDALE

LA VERNE
BRACKETT FLD ***IFR*** 1SW **FSS:** ONTARIO (DL)
997 H40/8–26(1) BL4 S5 U2 DT2
Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.
Tower[1] 118.2 122.7R ~~121.5~~ **Gnd Con** 121.7
VFR ADV: Ctc March APP CON 120.8, 122.5R/DEP CON 125.5, 122.5R
Remarks: [1]Oper 0700–2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN **FSS:** STOCKTON

LONG BEACH ***IFR*** 3NE **FSS:** LOS ANGELES (DL)
§LONG BEACH (Daugherty Fld)
58 H100/12–30(5) (S–90, T140, TT–240) BL4,6,8A,10,11,12 S5 F5, JP1, JP4 U2 DT2 **RVR:** Rnwy 30.
Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R, 34R.
Long Beach Tower 119.5[1] 120.5[2] 126.2[2] 122.4R[1]
Gnd Con 121.9
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558
ILS 110.3 I–LGB Apch Brg 300° **LOM** 233/LG
VHF/DF[1] contact Tower.

CALIFORNIA—*Continued*

(L) BVORTAC 115.7/LGB 274° 4.4NM to fld
Remarks: [2]For all right rnwys. **VOT:** 109.0

§LOS ANGELES INTL ***IFR*** 9SW **FSS:** LOS ANGELES on Fld
126 H120/7R-25L(4) (S-100, T-180, TT-340) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R **RVV:** Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R
Remarks: Rnwy 34 threshold displaced 1679' N. Rnwys 25L, 25R thresholds displaced 600' W. Rnwy 16-34 (S125 T200+ TT400+).
Tower 118.9 125.8 123.7[1] 122.7R **Gnd Con** 121.6 121.8
‡**Clrnc Del** 126.85 121.4
ATIS: 108.5
Radar Services:
App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Dep Con 125.2[2] 124.3[3]
Tfc Info ctc App Con 30 mi out.
PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.
ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426
ILS[4] 109.9 I-LAX Apch Brg 248° **LOM:** 266/LA
VHF/DF ctc twr.
(H) BVORTAC 113.6/LAX at fld.
RBn SABH 332●/LAX 245° 3.4 NM to fld.
Remarks: [1]Heli Operns. [2]035-224° [3]225-044° [4]Glide slope unusable below 300' MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)
§VAN NUYS ***IFR*** 3NW **FSS:** LOS ANGELES (DL)
800 H80/16R-34(2) (S-70, T-120, TT-210) BL5,11 S5 F4 JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R
Remarks: Rnwy 16R threshold displaced 1376' S. 6624' avbl lndg rnwy 16R. Rnwy 16L-34R daylgt use only. Rnwy 16L threshold displaced 1432' S. 2568' avbl lndg rnwy 16L. Parallel 2000' strip bet 16L-34R and 16R-34L clsd except emerg.
Tower[1] 120.3[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7
ATIS: 113.1
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
(L) VOR 113.1/VNY on fld.
Remarks: [1]Oper 0600-2200 lcl time. [2]360-149° and departure rnwy 16L-34R. [3]150-359° and departure rnwy 16R-34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN **FSS:** FRESNO

MARYSVILLE (T) BVOR 110.8/MYV **FSS:** MARYSVILLE

MATHER (L) VORW 114.6/MHR **FSS:** SACRAMENTO

MAXWELL (L) BVORTAC 110.0/MXW **FSS:** MARYSVILLE

McCLELLAN RBn MHW 395/MCC **FSS:** SACRAMENTO

MODESTO
§CITY-COUNTY ***IFR*** 2 SE **FSS:** STOCKTON (DL)
96 H50 (2) BL4 S5 F4 DT2
Remarks: Rgt tfc rnwys 11R, 29R.
Tower[1] 120.0 122.7R **Gnd Con** 121.7
Modesto (T) BVOR 108.4/MOD
Remarks: [1]Oper 1400-0600Z.

MONTAGUE
SISKIYOU COUNTY ***IFR*** 4NE **FSS:** MONTAGUE ON FLD
2651 H75(1) (S90 T120 TT175) BL4 S5 F4 DT 2
Tower[1] 126.2 118.7T 122.5R
Montague RBn BH 382/SIY
Remarks: [1]Opers 1600-2400Z. Mon-Fri, clsd holidays. During hrs twr not in opern AAS will be provided by the FSS.

CALIFORNIA—*Continued*

§MONTEREY PENINSULA ***IFR*** 3SE **FSS:** SALINAS (DL)
220 H50/10-28(2) (S-40, T-70, TT-120) BL5,6,8A,9 S5 F5, JP1 U2 DT2
Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.
Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9
Monterey App Con 120.8
Monterey Dep Con 120.8
ILS[1] 110.1 I-MRY Apch Brg 096° **LOM:**[2] 281/MR
Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130-150°.

§NAPA COUNTY 5S **FSS:** OAKLAND (DL)
33 H53/18-36(2) BL4 S5 F4 DT2
Tower[1] 118.8 122.7R **Gnd Con** 121.7
(L) BVORTAC 112.1/APC
Remarks: [1]Opers 1500-0700Z

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON L) VORW 117.6/SBD
RBn MHW 347/BD

OAKLAND
§OAKLAND INTL ***IFR*** 4S **FSS:** OAKLAND on Fld 6 H100/11-29(4) (S-100, T-160, T-290) BL6,8A,9,14,15 S5 F5, TP1, JP4 U2 DT2
RVV: Rnwy 27R **RVR:** Rnwy 29
Remarks: Rnwy 33 threshold displaced 2113' N. Rgt tfc rnwys 27R, 9R, 33 & 11. Tie down overngt Fee.
Oakland Tower 118.3 126.0 122.6R 116.8T
Clrnc Del 121.1
Gnd Con 121.9 121.6
ATIS: 108.7 109.9
Radar Services: (BCN)
Oakland App Con 118.1[1] 116.8T 120.9[2]
Oakland Dep Con 124.7
Tfc Info Call App Con 25 mi out.
PAR[4] Rnwy 29 Ceil 200 Vslby ½ mi Min Alt 206
ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.
ILS 108.7 I-INB Apch Brg 293X BC unusable **LOM:** 266/IN
109.9[5] I-OAK Apch Brg 275° BC unusable
VHF/DF[3] available, contact Tower.
Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.
Oakland RBn SABH 362●/OAK on fld.
Remarks: [1]271-090° 090-270° [3]Unusable below 6000' MSL 360-050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. [5]Glide slope rnwy 27 unusable for auto apchs. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

§ONTARIO INTL ***IFR*** 2E **FSS:** ONTARIO on Fld
952 H100/7-25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 1000' on W end. 1000' overrun E end rnwy 7-25.
Tower 118.5 122.5R **Gnd Con** 121.9
Clrnc Del 120.6
Radar Services: (BCN)
March App Con 120.8 122.5R 111.4T
March Dep Con 125.5 122.5R
ILS 109.7 I-ONT Apch Brg 255° **LOM:** 227/OM
(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VORTAC 111.2/OAF

OXNARD
§VENTURA COUNTY ***IFR*** 1W **FSS:** SANTA BARBARA (DL)
43 H59/7-25(1) (S-36, T-48 TT-75) BL4,11 S5 F4, JP4 U2 DT2 **REIL** rnwy 25.
Remarks: Rnwy 25 threshold displaced 1377' W. 4570' avbl

CALIFORNIA—*Continued*

Indg rnwy 25. Rnwy 7 threshold 750′ E. 5197′ avbl Indg rnwy 7.

Tower 120.7 122.4R ~~121.5~~ **Gnd Con** 121.9
Oxnard App Con 124.7 122.5R
Oxnard Dep Con 124.7
Ventura (L) BVORTAC 108.2/VTU
Remarks: [1]Opers 0600–2200 lcl time.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF
RBn SABH 338/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)
816 H46/9–27(2) BL5, 11 S5 F4 U2 DT2
Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.
Tower[2] 121.0 122.6R ~~121.8~~ **Gnd Con** 121.7
VFR ADV Ctc March App Con 120.8 122.5R/Dep Con 125.5 122.5R
(T) VOR 111.4/RAL
Remarks: [1]Opers 0600–2200 lcl time.

§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld
21 H60/2–20(3) (S–90, T–120, TT–180) BL4,6 8A, 9 S5
F4, TP–1 U2 DT2 **RVV:** Rnwy 2
Remarks: Rnwy 16 apch restricted by antenna-glide angle 12 to 1. 2200′ apch lgtg rnwy 2. Perimeter txwy to rnwy 30 not visible from twr, ctc twr when number one for dptr.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS: 110.3
Radar Services: (BCN)
App Con 119.1 125.2 121.0 122.5R
Dep Con 124.5
VHF/DF ctc FSS.
ILS 110.3 I–SAC Apch Brg 016° **LOM:** 356/SA
(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO

§MONTGOMERY FLD 6N **FSS:** SAN DIEGO (LC 296–3181)
423 H34/10–28(2) (S30– T–, TT–) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwys 5, 10.
Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9
(H) BVORTAC 117.8/SAN 304° 0.2 NM to fld
Remarks: [1]Opers 0700–2300 lcl time

§SAN DIEGO CO–GILLESPIE FLD 10NE
FSS: SAN DIEGO (LC 296–3181)
385 H53(9–27(2) (S–67, T–113, TT) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl Indg rnwy 27. Rnwy 17–35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.
Gillespie Tower[1] 120.7 122.7 **Gnd Con** 121.7
Remarks: [1]Oper 0700–2300 lcl time

§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE
FSS: SAN DIEGO on Fld
15 H87/9–27(2) (S–100, T–200, TT–400) BL5,6,8A,9,11
S–5 F5, JP1 U2 DT2 **REIL:** Rnwy 27
Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl Indg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions. Twr unable to see ramp area W of the Ryan Aero Plant and S of the parallel txwy.
Tower 118.3 122.5R 109.6T **Gnd Con** 121.7
Radar Services: (BCN)
San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T
San Diego Dep Con 125.7[3] 125.3[4]
Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I–SAN Apch Brg 092° **LOM:** 278/SA
Lindbergh (L) BVOR 109.6/LIF on fld.
Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)
12, H97(10L–28R) (4) (S–200, T–200, TT–400) BL6,8A,9,10,11,12
S–5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVV:** Rnwy 19 **RVR:** Rnwy 28R
Remarks: Rnwy 28R displaced threshold 200′ NW. 9496′ avbl Indg rnwy 28R. Rnwy 1R displaced threshold 1100′ NE. 8400′ avbl Indg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop.
Tower 120.5 122.7R **Gnd Con** 121.8
‡Clrnc Del 121.4
ATIS: 111.2
Radar Services:
App Con 124.9[1] 119.3[2] 111.2T 109.5T
Dep Con 124.4 128.5
Tfc Info Ctc OAK app con 0600–1400 for trml radar service.
PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.
ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412.
Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512
ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF
VHF/DF available, contact tower.
(L) VOR 111.2/SFO at fld.
RBn MHW 275/SIA 191° 0.6 to rnwy 19L.
Remarks: [1]315–134°, [2]135–314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0 unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)
56 H78/12R–30L (2) (S–100, T–130, TT–210) BL6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30L
Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl Indg rnwy 30L. Twr unable to see NE tfc patn.
Tower 120.7[2] 122.4R 124.0[1] **Gnd Con** 121.7
ATIS[3] 108.2
Radar Services: (BCN)
Moffett App Con 120.1 123.7 122.4R 110.9T 108.2T
Moffett Dep Con 121.3 122.4R 108.2T
Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
(L) VOR 108.2/SJC on fld.
Remarks: [1]Rnwys 30L–12R [2]Rnwys 30R–12L [3]Opers 0800–2000 lcl time

SAN LUIS OBISPO (L) BVORTAC 112.4/SBP **FSS:** PASO ROBLES

CALIFORNIA—*Continued*

SANTA ANA
§ORANGE COUNTY ***IFR*** 4 S **FSS:** LOS ANGELES (DL)
53 H57/1L-19R(2) (S-68, T-95, TT-170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400-0700Z. [2]For pattern to the W for long rnwy.

§SANTA BARBARA MUNI ***IFR*** 7 W **FSS:** SANTA BARBARA on fld
14 H50/7-25 (2) (S-40, T-71, TT-117) BL5,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 7-25 overrun unlgtd. Rnwy 25 threshold displaced 296′ E end rnwy 25, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I-SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC **FSS:** LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX

§SANTA MONICA MUNI ***IFR*** 3 E **FSS:** LOS ANGELES (DL)
175 H50/3-21 (1) S-80, T-120, TT-220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[1] 120.1 122.6R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[3] 124.5[3] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°-225°, [2]225°-044° **VOT:** 110.2 [3]Oper 0700-2300 lcl time. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§SONOMA COUNTY ***IFR*** 6 NW **FSS:** UKIAH (DL)
125 H50/14-32(2) (S-80, T-130, TT-220) BL4 S5 F4 U2 DT2
Remarks: Attended days.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600-2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU **FSS:** OAKLAND

§STOCKTON METROPOLITAN ***IFR*** 3S **FSS:** STOCKTON on fld
27 H86/11L-29R(4) (S-100, T-200, TT-400) BL6 S5 F4 TPI U2 DT2
Remarks: First 2000′ rnwy 29R clsd 1500-0200Z Mon-Fri.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I-SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§LAKE TAHOE 2SE **FSS:** SACRAMENTO (DL)
6263 H85/18-36(1) BL4 F4 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 36.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR 113.2/LTA
Remarks: [1]Opers 0700-2300 lcl time

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

§TORRANCE MUNI ***IFR*** 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L-29R(2) (S-30, T-50, TT-80) BL4 S5 F4 U2 DT2

CALIFORNIA—*Continued*

Remarks: Both ends rnwy 11L-29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 118.1 124.0 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 127.2
Remarks: [1]Oper 0600-2200 lcl time. [2]045°-224°. [3]225-044°.

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

BUCKLEY (T) VOR 112.7/BKF **FSS:** DENVER

COLORADO SPRINGS
§PETERSON FIELD ***IFR*** 6 SE **FSS:** DENVER (LC 634-3127)
6172 H110/17-35(3) (S-100, T-200, TT-400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17-35. 1000′ overrun each end rnwy 17-35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I-COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] available, contact tower.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340-055° and 15 nmi 245-270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER
§STAPLETON INTL ***IFR*** 4 E **FSS:** DENVER on Fld
5331 H115/17-35(3) (S-120, T-200, TT-350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: Twr unable to determine whether acft are on correct final apch to rnwys 8L-8R and 26L-26R. Rnwy 17-35 clsd every Mon 1530-1730Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3
Radar Services: (BCN)
Denver App Con 119.3[1] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I-DEN Apch Brg 257° **LOM:** 362/DE
108.1 I-SPO Apch Brg 350°
VHF/DF available, contact tower.

COLORADO—*Continued*

Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270–089°. [2]090–269°. **VOT:** 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC **FSS:** FARMINGTON

DURANGO (L) BVOR 108.2/DRO **FSS:** FARMINGTON

ENGLEWOOD RBn H–SAB 379●/EWD **FSS:** DENVER

GILL (L) BVORTAC 108.8/GIL **FSS:** DENVER

GRAND JUNCTION
§WALKER FIELD *IFR* 3NE **FSS:** GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12
S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I–GJT Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[2] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable 5158′ and from ¾ NM to rnwy threshold. [2]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC **FSS:** GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO **FSS:** LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC **FSS:** DENVER

KREMMLING (H) BVORTAC 113.8/RLG **FSS:** EAGLE

LAMAR (H) BVORTAC 116.9/LAA **FSS:** LA JUNTA

MEEKER (L) BVORTAC 111.8/EKR **FSS:** EAGLE

PETERSON (L) VORW 109.0/PEF **FSS:** DENVER

§PUEBLO MEML *IFR* 5E **FSS:** PUEBLO on Fld
4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F5
JP1 **RVV:** Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I–PUB Apch Brg 075° **LOM:** 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC **FSS:** AKRON

TOBE (L) BVORTAC 115.8/TBE **FSS:** TRINIDAD

TRINIDAD RBn SABH 329●/TAD **FSS:** TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI *IFR* 3SE
FSS: WINDSOR LOCKS (LC ED 5–6097)
9 H47 (11–29(3) (S–36.5, T–55.5, TT–) BL5,6 S5 F5 JP1, JP4
U2 DT2
Remarks: Apch to rnwys 16, 29 blkd by trees.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON **FSS:** PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI–3–3245)
Remarks: [1]Oper by State.

HARTFORD (L) BVORTAC 114.9/HFD **FSS:** WINDSOR LOCKS
RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD **FSS:** WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN **FSS:** WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW **FSS:** PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT **FSS:** WORCESTER

WINDSOR LOCKS
§BRADLEY FIELD *IFR* 3W **FSS:** WINDSOR LOCKS on Fld.
173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10,14,15 S5
F5, JP4,5 U2 DT2 **VASI:** Rnwy 33

CONNECTICUT—*Continued*

Remarks: Rnwy 6–24 A–Gear both ends.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I–BDL Apch Brg 058° **LOM:** 388/BD
Remarks: Glide slope rnwy 6 unusable below 373′.

DELAWARE

DOVER (T) VOR 108.4/DOV **FSS:** MILLVILLE
Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO **FSS:** MILLVILLE

WATERLOO (L) BVOR 112.6/ATR **FSS:** SALISBURY
Remarks: To be BVORTAC Aug 1.

WILMINGTON
§GREATER WILMINGTON *IFR* 4S **FSS:** MILLVILLE (LC 652–5419)
79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5
F4, JP1 U2 DT2
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125.0 110.3T
ILS 110.3 I–ILG Apch Brg 014° BC unusable **LOM:** 248/IL
VHF/DF available, contact tower.
New Castle (L) BVORTAC 114.0/EWT 067° 0.5 nmi to fld.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON
§DULLES INTL *IFR* 21W **FSS:** WASHINGTON (DL)
313 H115/(1L–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15
S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R
Remarks: RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.4
Radar Services: (BCN)
App Con 119.2 126.1
Dep Con 125.55
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I–DLX Apch Brg 186°
109.3 I–DIA Apch Brg 006° **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

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§WASHINGTON NATIONAL *IFR* 3S **FSS:** WASHINGTON on Fld
15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15
S5 F5,JP1 U2 DT2 **VASI:** Rnwy 15 **RVV:** Rnwys 18, 15
RVR: Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18
Remarks: Very limited parking. Caution turbulence apch ends rnwys 21, 33 and 36.
Tower 119.1 122.5R 118.3[5] **Gnd Con** 121.7
‡Clrnc Del 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[2] 134.1[3] 127.0 122.5R 128.8 109.9T
Dep Con 118.1[1] 126.55[2]
Tfc Info Ctc Ap Con on 119.3
PAR[4] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I–DCA Apch Brg 003° BC unusable **LOM:** 332/DC

DISTRICT OF COLUMBIA—*Continued*

VHF/DF available, control tower.
Washington (L) VORTAC 111.0/DCA at fld.
Washington RBn H-SAB 332●/DC 001° 4.6 NM to fld.
Remarks: [1]West [2]East [3]Andrews Sector. Circling PAR avbl on 15 min notice durg VFR conditions. [4]Radar monitoring instrument apchs only at pilot's request. [5]Helicopter ctl. LOM is H-SAB. **VOT:** 108.2.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY **FSS:** MIAMI

CECIL (L) VORW 108.2/NCZ **FSS:** JACKSONVILLE

CRESTVIEW (H) BVORTAC 115.9/CEW **FSS:** CRESTVIEW
RBn HW 350/CEW

CROSS CITY (L) BVOR 112.0/CTY **FSS:** GAINESVILLE

§DAYTONA BEACH MUNI *IFR* 3SW **FSS:** ORLANDO (LC255-4767)
34 H57/6-24(3) (S-60, T-80, TT-) BL4,6,8A,9
S5 F5, JP1 U2
Remarks: Rgt tfc rnwy 6.
Tower 120.7 126.2 122.5R **Gnd Con** 121.9
App Con 123.9 122.5R 112.6T 109.7T
ILS 109.7 I-DAB Apch Brg 065° **LOM:** 263/DA
(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.

DESTIN RBn HW 201/DES **FSS:** CRESTVIEW

EGLIN (L) VOR 110.8/VPS **FSS:** CRESTVIEW

EGMONT KEY RBn HW 310/H

§FT. LAUDERDALE-HOLLYWOOD INTL *IFR* 3SW AOE
FSS: MIAMI (LC 524-0233)
10 H74/9-27(3) (S-115, T-200, TT-400) BL4 S5 F5, JP1 U2
Remarks: Rnwy 9-27 thresholds displaced 600′ both ends 1045′ AGL twr 7NM SSW.
Fort Lauderdale Tower 119.3 122.5R 111.4T
Gnd Con 121.7
Radar Services: (BCN)
Miami App Con 123.9 119.7
Miami Dep Con 128.0 119.7
Ft Lauderdale (L) BVOR 111.4/FLL on fld.
Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY **FSS:** FORT MYERS
RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD **FSS:** TAMPA

GAINESVILLE (H) BVORTAC 116.2/GNV **FSS:** GAINESVILLE

GREENVILLE (L) BVOR 109.0/GEF **FSS:** TALLAHASSEE

HOLLYWOOD
§NORTH PERRY 5W **FSS:** MIAMI (LC 524-0233)
9 H31/4-22(4) (Max-16) BL5 S5 F4 U2
Remarks: Two way rdo required.
Tower[1] 121.3 122.4R
Remarks: [1]Opers 1200-0200Z.

HOMESTEAD (L) VOR 108.2/HST **FSS:** MIAMI
RBn MHW 221/HST

JACKSONVILLE
§IMESON *IFR* 5N **FSS:** JACKSONVILLE on Fld
52 H79/5-23(3) (S-62, T-110, TT-200) BL4,6,12 S5 F5, JP4 U2
RVV: Rnwy 5
Remarks: Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. Rnwy 18-36 open for dalgt VFR operns. 1500′ apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410/ E, rnwy 12 displaced 335′ W. Jet arresting gear rnwy 5-23.

FLORIDA—*Continued*

Jacksonville Tower: 118.3 126.2 122.5R 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2
Tfc Info: Ctc App Con on 119.0 25 mi out.
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452.
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I-JAX Apch Brg 045° BC unusable **LOM:** 221/JA
Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.
Jacksonville RBn H-SAB 344●/JAX 270° 1.4NM to fld.
VHF/DF available, contact tower
Remarks: [1]Glide slope unusable below 150′. **VOT:** 111.0

§KEY WEST INTL *IFR* 2 E AOE **FSS:** KEY WEST on Fld
4 H48/9-27(1) (S-30, T-40, TT-) BL4 S3 F4
Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 10:00 PM to Key West FSS.
Tower[1] 119.5 122.5R **Gnd Con** 121.9
Navy Key West App Con 118.7 122.5R
VFR ADV Ctc Key West rdo 0300-1100Z
(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.
RBn SBH 332/EYW 066° 1.2NM to fld.
Remarks: [1]Oper 0600-2200 lcl time.

LA BELLE (L) BVOR 110.4/LBV **FSS:** FORT MYERS

§LAKE CITY MUNI 3 E **FSS:** GAINESVILLE
202 H68/10-28(5) (S-75, T-140, TT-250) *L S5 F4 U1
Tower[1] 126.2
Remarks: [1]Oper 1300-2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL **FSS:** TAMPA (LC 682-3258

MARATHON RBn HW 260/MTH **FSS:** KEY WEST

MARIANNA (L) BVOR 114.0/MAI **FSS:** DOTHAN

MELBOURNE
§JOHN F KENNEDY MEML *IFR* 2 NW **FSS:** MELBOURNE on Fld
32 H112/(9-27(3) (S-85, T-145, TT-270) BL4 S5 F4, JP5 U2
Remarks: 9603′ rnwy 9-27 available ngts, displaced threshold rnwy 27 1589′W
Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9
Radar Services:
Patrick App Con 118.4
Patrick Dep Con 118.4
Melbourne (L) BVOR 110.0/MLB on fld.
Melbourne RBn HW 257/MLB 087° 2.1NM to fld.
Remarks: [1]Oper 0600-2400 daily, VFR use only.

MIAMI
§MIAMI INTL *IFR* 8 NW AOE **FSS:** MIAMI on Fld
9 H105/9L-27R (4) (S-200, T-200 TT-400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L
Remarks: Fee. Clsd non engine acft.
Tower 118.3 120.5 126.2 122.4R **Gnd Con** 121.8
‡Clrnc Del 127.5
ATIS: 115.9
Radar Services: (BCN)
App Con 118.1[1] 128.0 123.9[2] 122.4R
Dep Con 128.0 119.7
Tfc Info Ctc Twr 20 mi out or remain above 2500′.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509.
Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.
ILS 110.3 I-MFA Apch Brg 087° **LOM:**[4] 365/MF
109.5 I-MIA[3] Apch Brg 267° **LOM:** 248/MI
VHF/DF available, contact tower.
(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12
RBn H-SAB 365●/MF 087° 4.5NM to rnwy 9L.

FLORIDA—*Continued*

Remarks: [1]090°–269° [2]270°–089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]Glide slope rnwy 27 unusable below 175′ MSL. **VOT:** 112.0 [4]LOM is H–SAB.

§OPA LOCKA *IFR* 10 NW **FSS:** MIAMI
9 H80/9L–27R(5) (S–96 T–155 TT–290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L–27R. 1045′ TV twr 5 NM NNE. JP–1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.
Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Miami App Con 120.5 118.1
Miami Dep Con 128.0 119.7
Remarks: [1]Oper 1100–0300Z.

§TAMIAMI 8 W **FSS:** MIAMI
10 H38/14 32 (3) BL4 S5 F4
Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.
Tower[3] 121.1 122.6R **Gnd Con** 121.7
Radar Services:
Miami Dep Con 128.0[1] 119.7[2]
Remarks: [1]270°–089° [2]090–269°. [3]Opers 1200–0400Z.

OCALA (L) BVORTAC 112.8/OCF **FSS:** GAINESVILLE

ORLANDO
§HERNDON *IFR* 3 E **FSS:** ORLANDO on Fld
113 H60/7–25(3) (S–90, T–160, TT–300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7
Remarks: NW–SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.
Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7
Clrnc Del 121.7
Radar Services:
Orlando App Con 119.4 124.8 122.5R 109.9T
Orlando Dep Con 121.1
Tfc Info Ctc App Con on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613.
Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.
ILS 109.9 I–ORL Apch Brg 067° **LOM:** 221/OR
(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK **FSS:** WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN **FSS:** TALLAHASSEE

§PENSACOLA MUNI *IFR* 3 NE **FSS:** PENSACOLA on Fld
118 H50/16–34(2) (S–100, T–180, TT–320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16
Remarks: Overnight tie-down fee.
Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 123.9[1] 134.1 122.7R 119.0[2]
Dep Con 119.0[2] 134.1 123.9[1]
Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN
RBn H–SAB 326●/PNS 343° 1.8NM to fld.
Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR **FSS:** MIAMI

ST AUGUSTINE
§FAIRCHILD–ST AUGUSTINE 3N **FSS:** JACKSONVILLE
10 H65/13–31(3) (S–30) BL4,6 S5 F5
Remarks: Rnwy 2–20 and 6–24 clsd to acft over 12,500 lbs when twr not in opern.
Tower[1] 126.2 123.1 122.5R
Remarks: [1]Oper 1230–2115Z Mon–Fri.

ST. PETERSBURG
WHITTED 2E **FSS:** TAMPA (DL)
7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2
Remarks: Rgt tfc rnwys 6, 36.

FLORIDA—*Continued*

Tower 120.4 122.4R **Gnd Con** 121.8
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T
Tampa Dep Con 126.5
Tfc Info: See Tampa Intl
Remarks: Opers 0600–2200.

§ST. PETERSBURG-CLEARWATER INTL *IFR* 8N **FSS:** TAMPA (LC 446–1168)
10 H80/17–35 (3) (S–95, T–155, TT–200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17
Remarks: Rnwy 4–22 clsd to night ops UFN.
Tower 118.3 122.7R **Gnd Con** 121.9
Radar Services (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T **Tampa Dep Con** 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI
St Petersburg (L) BVORTAC 116.4/PIE at fld.
Remarks: [1]Glide slope unusable below 110′.

SANFORD NAS RBn SH 408/NRJ **FSS:** ORLANDO

§SARASOTA-BRADENTON *IFR* 3 N **FSS:** ST. PETERSBURG (DL)
24 H50/13–31(3) (S–62, T–110, TT–190) BL4,6 S5 F5, JP1 U2
Remarks: Rnwy 9–27 and all perimeter txwys clsd to acft in excess 12,500 lbs.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 108.4T
Tampa Dep Con 126.5
Sarasota (L) BVOR 108.4/SRQ at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUFLEY (L) BVOR 108.8/NUN **FSS:** PENSACOLA
RBn MH 293/NUN

§TALLAHASSEE MUNI *IFR* 4 SW **FSS:** TALLAHASSEE on Fld
81 H61/18–36(2) (S–80, T–150, TT–270) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 36
Tower 118.7 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
App Con 118.1 122.5R 117.5T 110.3T
Dep Con 118.1
ILS[1] 110.3 I–TLH Apch Brg 358° **LOM:** 379/TL
(H) BVORTAC 117.5/TLH
RBn H–SAB 379●/TL 358° 4.1NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 160′ MSL. **VOT:** 111.0 LOM is HSAB.

§TAMPA INTL *IFR* 3 W AOE **FSS:** Tampa on fld
27 H87(18R–36L (S–60, T–175, TT–270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L
Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.
Tower 119.9 126.2 122.5R 110.3T **Gnd Con** 121.7
Radar Services (BCN)
App Con 119.5 125.3 122.5R 118.5 116.0T 116.4T 108.4T
Dep Con: 126.5
Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.
ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP
RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36
VHF/DF: ctc FSS
Remarks: **VOT:** 111.0

TAYLOR (L) BVORTAC 113.8/TAY **FSS:** VALDOSTA

TYNDALL (L) VOR 117.7/PAM **FSS:** TALLAHASSEE
RBn HW 227/AAN

VERO BEACH (H) BVORTAC 117.3/VRB **FSS:** VERO BEACH

FLORIDA—*Continued*

WEST PALM BEACH

§PALM BEACH INTL ***IFR*** 3 W AOE **FSS:** MIAMI (LC 832-5697)

19 H80/9-27(2) (S-85, T-400, TT-) BL4.6,8A,9 S5 F5 JP4

RVV: Rnwy 9

Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.

Tower 119.1 122.7R **Gnd Con** 121.9

App Con 118.0 122.7R 115.5T 109.3T

ILS[1] 109.3 I-PBI Apch Brg 093° **LOM:** 356/PB

Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.

Palm Beach RBn HW 356/PB 093° 5.7 NM to fld.

Remarks: [1]Glide slope unusable below 150'. **VOT:** 109.0

LOM is HW.

GEORGIA

ALBANY (L) BVOR 112.9/ABY **FSS:** ALBANY

ALMA (H) BVORTAC 115.1/AMG **FSS:** ALMA

ATHENS (L) BVORTAC 109.6/AHN **FSS:** ANDERSON

ATLANTA

§ATLANTA MUNI ***IFR*** 7SSW **FSS:** ATLANTA

1024 H100(9L-27R(4) (S-100, T-170, TT-340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.

Remarks: Aprxly 2100' of W end rnwy 9R-27L not visible from twr. TV towers 1042' (2049' MSL) 8.5 NM NE. 1076' (2049' MSL) 7.5 NM NE. 1100' (2049' MSL) 10 nmi NE. Commercial Fee only. [2]Avail for apch and roll out.

Tower 119.1 119.5 122.7R **Gnd Con** 121.9

‡Clnrc Del 121.6

ATIS: 111.8 111.0

Radar Services: (BCN)

App Con 127.7 (N of V18) 118.1 (S of V18) 109.9T 109.3T 110.5T

Dep Con 125.7 125.0

Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.

PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.

ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424.
Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.

ILS 109.9 I-ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I-AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I-ALR Apch Brg 089° **LOM:** 254/AL

(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.

RBn H-SAB 266●/ATL 270° 4.7NM to rnwy 27R.

Remarks: [1]Glide slope rnwy 33 unusable below 1085' MSL. [2]Radar monitoring of instrument apchs only at pilot's request.

VOT: 111.0

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§DEKALB-PEACHTREE ***IFR*** 8 NE **FSS:** ATLANTA

1002 H40/16-34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2

Remarks: Ctl twr unuable to see first 1000' rnwy 2. TV towers 1042 (2049' MSL) 7.5NM SSW; 1076' (2049 MSL) 8NM SSW; 1100' (2049' MSL) 5NM SSW. Two unlgtd 8' bldgs 480 NNE intsxn rnwy 16-34 and 9-27, 160' E of rnwy 16-34.

Peachtree Tower[1] 120.9 122.5R **Gnd Con** 121.7

Radar Services:

Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8

Remarks: [1]Oper 1200-0400Z.

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§FULTON COUNTY ***IFR*** 6W **FSS:** ATLANTA on Fld

839 H52/8-26(2) (S50, T-77, TT-) BL4, 11 S5 F5

REIL: Rnwy 8.

Remarks: Towers 1042' (2049' MSL) 9 NM E. 1076' (2049' MSL) 8NM E. 110' (2049' MSL) 9.5 NM E.

Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7

Radar Services:

Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8

VHF/DF ctc FSS.

GEORGIA—*Continued*

(L) BVOR 108.2/FTY on fld.

RBn MH 245/FTY on fld

Remarks: [1]Oper 1200-0400Z.

AUGUSTA

§BUSH FIELD ***IFR*** 6S **FSS:** AUGUSTA on Fld

145 H80-17-35(2) (S-150, T-200, TT-360) BL4,6,8A,9 S5 F5, JP1, JP4 U2

Remarks: 1506' (1882' MSL) twr 7NM ENE and 1292' (1677' MSL) twr 7NM NE.

Augusta Tower 118.7 126.2 122.5R 110.5T

Gnd Con 121.9

Augusta App Con 125.4 122.5R 113.9T 110.5T

ILS[1] 110.5 I-AGS Apch Brg 349° BC unusable **LOM:** 233/AG

Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.

Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.

VHF/DF ctc FSS.

Remarks: [1]Glide slope unusable below 245' MSL.

BLAKELY RBn MHW 365/BLG **FSS:** DOTHAN

BRUNSWICK (L) BVOR 109.8/SSI **FSS:** BRUNSWICK

COLUMBUS

§MUSCOGEE COUNTY ***IFR*** 4NE **FSS:** ATLANTA

397 H50/5-23(2) (S-60, T-80, TT) BL4,6 S5 F5, JP5 U2

Remarks: Rnwy 12-30 closed to ngt lndgs.

Tower 120.1 122.5R **Gnd Con** 121.9

ILS[1] 110.3 I-CSG Apch Brng 053° BC unusable **LOM:** 355/CS

Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.

Remarks: [1]Glide slope unusable below 697'.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN **FSS:** MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA **FSS:** BRUNSWICK

HARRIS (L) BVOR 110.4/HRS **FSS:** KNOXVILLE, TENN.

LA GRANGE (L) BVOR 109.4/LGC **FSS:** ANNISTON

LAWSON (L) VOR 111.4/LSF

RBn SH 335/AWS

Remarks: VOR inoperative UFN.

LIBERTY RBn MHW 263/HIN **FSS:** SAVANNAH

LOST MOUNTAIN RBn HW 314/LSM

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§MACON MUNI ***IFR*** 9S **FSS:** MACON on Fld

354 H50/5-23(2) (S-30, T-50, TT-85) BL4,6,8A,9 S3 F5, JP1 U2 **RVV:** Rnwy 5

Tower[2] 118.3 122.5R 109.5T **Gnd Con** 121.7

Radar Services: (BCN)

App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T

Dep Con 124.8

ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.

ILS[1] 109.5 1-MCN Apch Brg 047° BC unusable **LOM:** 290/MC

(H) BVORTAC 114.2/MCN at fld.

VHF/DF ctc FSS.

Remarks: [1]Glide slope unusable below 450' MSL. [2]Opers 0700-2300 lcl time.

McDONOUGH (L) BVORTAC 113.6/MDU **FSS:** ATLANTA

MOULTRIE (L) BVOR 108.8/MGR **FSS:** VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR **FSS:** ATLANTA

REX (L) BVORTAC 111.8/REG **FSS:** ATLANTA

ROME (L) BVOR 115.4/RMG **FSS:** ATLANTA

RBn MHW 388/RMG

GEORGIA—*Continued*

SAVANNAH
§TRAVIS FIELD *IFR* 7NW **FSS:** SAVANNAH on Fld
50 H90/9–27(3) (S40–T60–TT–110) BL4,6,8A,9 S5
F4, JP5 **RVR:** Rnwy 9
Remarks: Rnwy 27 threshold displaced 400′. Rnwy 5–23 clsd all acft in excess 12,500 lbs GWT. Jet barrier and arresting gear rnwy 9–27
Savannah Tower 119.1 126.2 122.5R 110.1T
Gnd Con 121.9
Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7
ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: **VOT:** 111.0

TOCCOA (L) BVOR 109.8/TOC **FSS:** ANDERSON

VALDOSTA (L) BVOR 110.4/VLD **FSS:** VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA **FSS:** MACON

WAYCROSS (L) BVORTAC 110.2/AYS **FSS:** ALMA

IDAHO

§BOISE AIR TERMINAL *IFR* 3S **FSS:** BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9
S5 F5, JP1,4 U2 **RVV:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R. Jet barriers and arresting gear Rnwy 10R–28L plus jet barriers with donut supported cable aprxly 1000′ in from threshold lgts on rnwy 10R–28L.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI **FSS:** BURLEY
RBn SBH 272/BYI

COEUR D' ALENE RBn HW 347/COE **FSS:** SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS **FSS:** IDAHO FALLS

§IDAHO FALLS
FANNING FIELD *IFR* 2NW **FSS:** IDAHO FALLS on Fld
4739 H75/2–20(2) (S–30, T–90, TT–150) BL5,6,11 S5 F4 JP5
Remarks: Rnwy 20 threshold displaced 930′ SW. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 655′ S. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20. REIL rnwy 20.
Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350●/IDA 199° 2.2NM to rnwy 20.
VHF/DF ctc FSS.
Remarks: [1]Oper 1300–0500Z.

LEWISTON (L) BVOR 108.2/LWS **FSS:** WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD **FSS:** MALAD CITY

McCALL (H) BVORTAC 116.2/MYL **FSS:** BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP **FSS:** MULLAN PASS

§POCATELLO MUNI *IFR* 7NW **FSS:** POCATELLO on Fld
4448 H82/3–21(3) (S30, T80, TT130) BL5,6,9,12 S5 F4 JP1
U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF **FSS:** BURLEY

ILLINOIS

§ALTON CIVIC MEML 5E **IFR** **FSS:** ST. LOUIS
541 H51(2) BL4 S5 F4 JP1 (LC HO 5-4112)
Remarks: P-line NW. Hwy N
Tower[1] 121.1 122.5R **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
St. Louis Dep Con 119.9
VFR ADV: Ctc St. Louis, Lambert-St. Louis
RBn MHW 263/ALN
Remarks: [1]Oper 0700–2300 [2]Southeast Arrivals [3]Northwest arrivals

BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB **FSS:** VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI **FSS:** PEORIA

BRADFORD (H) BVORTAC 114.7/BDF **FSS:** PEORIA

CAHAKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

CAPITAL (H) BVORTAC 112.7/CAP **FSS:** VANDALIA

CARBONDALE RBn BMH 248/MDH **FSS:** CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL **FSS:** VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4SSW
FSS: CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4 U2 DT2
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN **FSS:** LAFAYETTE
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY *IFR* 3NW **FSS:** JOLIET (DL)
758 H40/10–28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 DT2
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy 5–23 clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 0600–2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E **FSS:** JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1,500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear acft. (3) 25 knots or more to all acft. Fld clsd daily to all opers btn hrs 2400 and 0600 lcl time due, no safety or svcs facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs.
Meigs Tower[1] 121.3 127.4 122.5R **Gnd Con** 121.9
Chicago Dep Con: 119.5
VFR ADV Ctc twr on 127.4 at least 10 mi out.
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY *IFR* 9SW AOE **FSS:** JOLIET (DL)
619 H65/13R–31L(6) (S–130, T–200, TT–400) BL2,4,6,8A,9,11
S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Customs svc avbl 0800–1700 cst Mon–Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 126.2 123.7 122.7R 109.9T 109.5T
Gnd Con 121.7
Radar Services:

ILLINOIS—*Continued*

Chicago App Con 119.5 126.2 124.7 124.2 122.6R 118.4 113.9T 110.1T 109.7T **Chicago Dep Con**[1] 124.2 119.2
Tfc Info Ctc Chicago App Con on 119.5.
PAR[2] Rnwy 13R Ceiling 300 Vsby ¾ mi Min alt 919
ASR Rnwys 4R, 9,[3]13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I–MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I–MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H–SAB 350●/MDW
VHF/DF contact Tower.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immeriate area of Midway. [2]PAR unusable from MM to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. LOM is Kedzie MHW. **VOT:** 111.0.

§CHICAGO-O'HARE INTL *IFR* 14NW **FSS:** JOLIET (DL)
667 H116/14R–32L(5) (S–120, T–200, TT–375) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **RVR:** 14R, 14L, 32L
RVV: Rnwys 4, 9, 27, 32R **REIL:** Rnwys 4, 22, 32R **VASI:** Rnwy 22
Remarks: Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts.
O'Hare Tower 118.1 126.2 122.6R 120.7 110.1T 109.7T
‡Clrnc Del 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4 125.0 124.2
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby ½ mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby ¾ mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I–ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I–OHA Apch Brg 138° **LOM:** 368/OH
110.5 I–IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I–RVG Apch Brg 318° **LOM:** 257/RV
111.1 I–IDN Apch Brg 318° **LOM** 385/ID
(L) VORTAC 113.9/ORD on fld.
VHF/DF ctc twr.
Remarks: [1]180°–359° [2]360°–179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE

DECATUR MUNI *IFR* 4E **FSS:** VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 TPI U–2
Remarks: REIL rnwy 18, 36
Tower: 118.9 122.5R **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700–2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN **FSS:** JOLIET

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

GLENVIEW RBn MH 269/NBU **FSS:** JOLIET

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

ILLINOIS—*Continued*

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY *IFR* 3S **FSS:** BURLINGTON (DL)
590 H55/9–27(3) (S–56, T–82, TT–140) BL4,6,8A,9 S5 F5, JP4 U2 DT2 **RVV:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 121.7[1] 224T
ILS 110.3 I–MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.
Remarks: [1]For IFR acft operg Davenport Mun Arpt.

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE

PEORIA
§GREATER PEORIA *IFR* 4W **FSS:** JOLIET
659 H70/12–30(4) (S–65, T–90, TT–170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. Arresting gear rnwy 12–30. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 1–PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD *IFR* 9E **FSS:** QUINCY on Fld
769 H54/3–21(3) (S65, T–90, TT–170) BL4,6 S5 F4 JP1 DT2
ILS[1] 110.1 I–UIN Apch Brg 035° **LOM:** 293/UI
Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.
Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: [1]Glide slope unusable below 950′ MSL. LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS **FSS:** CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD *IFR* 4S **FSS:** ROCKFORD on Fld
735 H60/18–36(3) (S–75, T–100, TT–). BL4,6,8A,9 S5 F5, JP1 DT2 **RVV:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I–RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV **FSS:** ST. LOUIS

SAMSVILLE (L) BVOR 116.6/SAM **FSS:** EVANSVILLE

SPRINGFIELD
§CAPITAL *IFR* 3NW **FSS:** VANDALIA (DL)
593 H70/4–22(3) (S–85, T–120, TT–210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVV:** Rnwy 4 **REIL:** Rnwy 22.
Remarks: Jet barrier rnwy 4–22.

ILLINOIS—*Continued*

Tower 121.3 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 118.6 aprx 25NM out
Springfield App Con 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I–SPI Apch Brg 038° **LOM:** 379/SP
Springfield RBn MHW 379/SP
Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY **FSS:** ST. LOUIS

VANDALIA (L) BVOR 114.3/VLA **FSS:** VANDALIA

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID **FSS:** INDIANAPOLIS

BAKALAR RBn HW 410/BAK **FSS:** INDIANAPOLIS
RBn MHW 201/BXR

BLOOMINGTON (L) BVOR 110.2/BMG **FSS:** INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL **FSS:** INDIANAPOLIS
RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU **FSS:** INDIANAPOLIS

CONNERSVILLE RBn MHW 275/CEV
Remarks: Owned and operated by the city.

EVANSVILLE
§DRESS MEMORIAL *IFR* 3N **FSS:** TERRE HAUTE (DL)
389 H60/3–21(3) (S–70, T–90, TT–) BL4.6 S5 F5 TPI U2 DT2
Remarks: P-line apch rnwy 21. Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below. First 700′ rnwy 21 clsd dalgt operns and first 250′ clsd ngt operns UFN.
Evansville Tower 118.7 122.5R **Gnd Con** 121.9
Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T
VFR ADV: Ctc App Con on 119.4
ILS 109.9 I–EVV Apch Brg 215° BC unusable **LOM:** 219/EV
Evansville (H) VORTAC 113.3/EVV 12.4NM to fld.

FT. WAYNE
§BAER FIELD *IFR* 6SSW **FSS:** FORT WAYNE on Fld.
801 H80/4–22(3) (S–90, T–120, TT–) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 22
Remarks: P-line apch rnwy 31. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9. Jet barrier rnwy 4–22.
Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6
Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.
ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW
Fort Wayne (H) BVORTAC 117.8/FWA on fld.
Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31
Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH **FSS:** SOUTH BEND

§INDIANAPOLIS MUNI (Weir Cook) *IFR* 7SW
FSS: INDIANAPOLIS on Fld
797 H100/4–22(2) (S–100, T–150, TT–270) BL6,8A,9,10,11 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 · **RVR:** Rnwy 4, 31
Remarks: Fee multi-eng commercial acft.
Tower 120.9 126.2 122.5R 116.3T
Clrnc Del 125.7 **Gnd Con** 121.9

INDIANA—*Continued*

ATIS 109.3 110.5
Radar Services:
App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T **Dep Con** 121.1
Tfc Info Cct App Con on 118.5 or 118.1
PAR[3] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN
110.5 I–COA Apch Brg 313° **LOM:** 232/CO
(H) BVORTAC 116.3/IND 142° 6.1NM to fld.
RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4
VHF/DF ctc FSS.
Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI **FSS:** SOUTH BEND

KOKOMO (L) BVOR 109.8/OKK **FSS:** INDIANAPOLIS
RBn MHW 227/OKK

LAFAYETTE
§PURDUE UNIVERSITY *IFR* 1SW **FSS:** LAFAYETTE on fld
605 H54/10–28(2) (S35 T53 TT80) BL5 S3 F5 JP1
Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.
ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA
Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU **FSS:** TERRE HAUTE

MARION (T) BVOR 108.6/MZZ **FSS:** INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI **FSS:** FORT WAYNE

MUNCIE
§DELAWARE COUNTY (Johnson Fld) *IFR* 3N
FSS: INDIANAPOLIS (DL)
937 H51/14–32(2) (S–70, T–90, TT–150) BL4 S5 F4 JP1 U2
Remarks: P-line in NW apch 3480′ off end runwy 14.
Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9
Muncie (L) BVOR 113.7/MIE
Remarks: [1]Oper 1200–0400Z.

NABB (L) BVOR 113.5/ABB **FSS:** LOUISVILLE

RICHMOND (L) BVOR 110.6/RID **FSS:** DAYTON
RBn MHW 385/RID

SCOTLAND (L) BVORTAC 111.2/SCJ **FSS:** TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB **FSS:** INDIANAPOLIS

SOUTH BEND
§ST. JOSEPH COUNTY *IFR* 3NW **FSS:** SOUTH BEND on Fld
785 H60/9–27(4) (S–110, T–145, TT–) BL4,6,8A,9 S4 F5, JP1 U2 **RVV:** Rnwy 27
Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.
South Bend Tower 118.9 122.5R 115.4T 109.3T
Gnd Con 121.9
South Bend App Con 121.0 122.5R 115.4T 109.3T
VFR ADV: Ctc App Con on 121.0
ILS 109.3 I–SBN Apch Brg 269° **LOM:** 341/SB
South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.
VHF/DF ctc FSS.

TERRE HAUTE
§HULMAN FIELD *IFR* 5E **FSS:** TERRE HAUTE on Fld
585 H90/5–23(3) (S–100, T–150, TT–270) BL4,6 S3 F4, JP1 U2
Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18–36 clsd to acft over 25,000 lbs. Jet barrier rnwy 5–23.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 122.5R 118.3
VFR ADV Ctc App Con on 123.8

INDIANA—*Continued*

ILS 109.7 I-HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT FSS: LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK FSS: FT. WAYNE

IOWA

AMES RBn MHW 275/AMW FSS: DES MOINES
Remarks: Operd by city.

ATLANTIC RBn MHW 365/AIO FSS: OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL FSS: BURLINGTON

§CEDAR RAPIDS MUNI *IFR* 5SSW FSS: CEDAR RAPIDS on Fld
863 H70/8-26(2) (S-100, T-135, TT-) BL4,6,8A,9,11 S-5 F4, TP-1 -JP1 U2 **REIL** Rnwy 26
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 119.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I-CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBN MHW 375/CCY FSS: MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN FSS: BURLINGTON

§DES MOINES MUNI *IFR* 3SW FSS: DES MOINES on Fld
957 H90/12-30(3) (S-100, T-180, TT-350) BL4,6,8A,9,11 S-5 F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17-35 closed to acft over 25,000 lbs. . DT Memorial Day—Labor Day.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I-DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ FSS: CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD FSS: MASON CITY

IOWA CITY (L) BVORTAC 111.0/IOW FSS: CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW FSS: DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK FSS: BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN FSS: DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW FSS: MASON CITY

NEOLA (L) BVORTAC 117.1/EOL FSS: OMAHA

NEWTON (L) BVOR 112.5/TNU FSS: DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM FSS: OTTUMWA

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

§SIOUX CITY MUNI *IFR* 6S FSS: SIOUX CITY CS/T
1097 H90/13-31(3) (Max 2.25) BL4,6,8A,9,11 S-5 F5, JP-1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 13

IOWA—*Continued*

Remarks: First 1500′ rnwy 22 not visible to tower. Arresting gear rnwy 13-31.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I-SUX Apch Brg 307° **LOM:** 414/SU
VHF/DF ctc tower
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
Remarks: [1]LOM is MHW.

SPENCER RBn MHW 257/SPW

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

§WATERLOO MUNI *IFR* 4NW FSS: WATERLOO on Fld
870 H54/12-30(3) (S-100, T-180, TT-305) BL4,8A,9 S-5 F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
App Con 125.8 122.5R 109.9T 108.2T
VFR ADV Ctc App Con on 125.8
ILS[1] 109.9 I-ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN FSS: LACROSSE

KANSAS

ANTHONY (L) BVOR 112.9/ANY FSS: WICHITA

CHANUTE (L) BVOR 109.2/CNU FSS: CHANUTE

DODGE CITY (L)BVOR 108.2/DDC FSS: DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP FSS: EMPORIA

FORT RILEY (L) VORW 109.4/FRI FSS: SALINA
RBn MHW 317/FRI

GARDEN CITY (H) BVORTAC 113.3/GCK FSS: GARDEN CITY
RBn H-SAB 257 /GCK

GOODLAND (L) BVORTAC 115.1/GLD FSS: GOODLAND

HILL CITY (H) BVORTAC 113.7/HLC FSS: HILL CITY

§HUTCHINSON MUNI *IFR* 3E FSS: WICHITA (DL)
1542 H70/13-31(3) (S-50, T-65, TT-103) BL4,6,8A,9 S5 F4 JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Threshold rnwy 31 displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 125.5 122.5R 118.5 116.8T
VFR ADV Ctc App Con on 125.5
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP FSS: CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE FSS: KANSAS CITY
746 H61/17-35(4) (S-30, T-50, TT-85) BL6 S5 F-5, JP-1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys. Rnwy 17-35 only rnwy avbl ngts.
Tower[3] 119.1 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Kansas City App Con 126.2 122.7R 121.1[1] 118.9[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Opers 0600-2200 daily, during hrs twr not in 2200-0600 tfc advisories will be furnished by Kansas City twr on 119.1

KANSAS—*Continued*

LIBERAL (H) BVOR 112.3/LBL FSS: GARDEN CITY
Remarks: To be BVORTAC Aug 19.

MANHATTAN (T) BVOR 110.2/MHK FSS: SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO FSS: SALINA

OSWEGO (L) BVOR 117.6/OSW FSS: JOPLIN

OTTAWA (L) VORW 111.6/TOE FSS: TOPEKA

PRATT RBn HW 356/PTT FSS: DODGE CITY

RUSSELL (L) BVOR 114.5/RSL FSS: RUSSELL

SALINA (H) BVORTAC 115.3/SLN FSS: SALINA

TOPEKA
§PHILIP BILLARD MUNI ***IFR*** 3NE FSS: TOPEKA on Fld
880 H51/13–31(3) (S–70, T–100, TT–175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
ILS[1] 109.5 I–TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

WICHITA
§BEECH ***IFR*** 5E FSS: WICHITA (DL)
1387 H50/18–36(3) F4
Remarks: Both apchs N–S rnwy restricted by polelines.
Tower[1] 119.9 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Operns 1400–2300Z Mon-Fri. Sat. 1300–1730Z. Clsd Sun and holidays.

§WICHITA MUNI ***IFR*** 5SW FSS: WICHITA on Fld
1332 H73/1–19(2) (S–100, T–188, TT–350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr ½NM NNW.
Tower 119.5 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
Wichita App Con 120.6 120.6 134.1 125.7 122.7R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I–ICT Apch Brg 011° **LOM:** 219/IC
(H) BVORTAC 113.8/ICT 162° 4.3NM to rnwy 14.
RBn SABH 332/ICT

KENTUCKY

ASHLAND RBn MHW 385/AKY FSS: HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG FSS: BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP FSS: BOWLING GREEN
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC FSS: LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT FSS: BOWLING GREEN

KENTUCKY—*Continued*

FALMOUTH (L) BVOR 109.0/FLM FSS: CINCINNATI

FORT KNOX (T) VOR 109.6/FTK FSS: LOUISVILLE
RBn MH 396/FTK

LEXINGTON
§BLUE GRASS FIELD ***IFR*** 5W FSS: LEXINGTON on Fld
978 H55/4–22(3) (S–95, T–128, TT–284) BL4,6,8A,9 S5 F5, JP–5 U2 **RVV:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.
Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd Con 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I–LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3NM to fld
Lexington RBn MHW 242/LE 042° 3.5NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ FSS: LONDON

LOUISVILLE
§BOWMAN FIELD ***IFR*** 5SE FSS: LOUISVILLE on Fld
549 H43/6–24(3) (Max 30) BL4,11 S–5 F–4, JP–4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

§STANDIFORD FIELD ***IFR*** 4S FSS: LOUISVILLE (DL)
497 H78/1–19(3) (S-60, T–90, TT–200) BL4,6,8A,9,14,15 S–4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1
Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7
Radar Services:
App Con 124.5 126.2 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I–SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I–LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF ctc tower
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS FSS: LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB FSS: HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO FSS: LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB FSS: EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK FSS: PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK FSS: HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG FSS: LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX FSS: ALEXANDRIA
RBn HW 251/AEX

BARKSDALE (L) VOR 114.8/BAD FSS: SHREVEPORT
RBn HW 379/BAD

BATON ROUGE
§RYAN ***IFR*** 4 N FSS: BATON ROUGE on Fld
70 H60/4–22 (3) (S–137, T–175, TT–340) BL4, 6, 11 S5 F4, JP5 U2 **REIL:** Rnwy 13
Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 120.3 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW

LOUISIANA—*Continued*

Tower 118.3 122.5R **Gnd Con** 121.9

Baton Rouge App Con 120.3 122.5R 116.5T 110.3T

ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT

Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (T) BVOR 108.8/ESF FSS: ALEXANDRIA

GRAND ISLE (H) BVORTAC 113.5/GNI FSS: NEW ORLEANS

RBn HH-SAB 236●/GNI

HARVEY (L) BVORTAC 112.4/HRV FSS: NEW ORLEANS

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§LAFAYETTE MUNI *IFR* 2 SE FSS: LAFAYETTE on Fld 42 H51/1-19(2) (S-29, T-47, TT-78) BL4, 8A, 9, 11 S5 F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1

Tower 118.5 122.5R **Gnd Con** 121.7

Clrnc Del 121.7

App Con 121.1 122.5R 118.5

ILS 109.5 I-LFT Apch Brg 193° **LOM:** 257/LF

(L)BVORTAC 110.8/LFT 344° 3.0 NM to fld.

RBn BMH 375/LFT at fld.

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§LAKE CHARLES MUNI *IFR* 3 S FSS: LAKE CHARLES on Fld 16 H65/15-33(2) (S-137, T-165, TT-350) BL4,5,6,8A, 9 S5 F4, JP4 **RVV:** Rnwy 15

Remarks: Rgt tfc rnwys 15 and 22.

Tower 120.7 122.5R **Gnd Con** 121.9

App Con 119.3 122.5R 113.4T 109.1T

ILS 109.1 I-LCH Apch Brg 148° **LOM:** 353/LC

(H)BVORTAC 113.4/LCH 252° 6.3 NM to fld.

RBn BH 242/LCH

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§MONROE *IFR* 3 E FSS: MONROE on Fld 79 H50/4-22(3) (S-50, T-75, TT-135) BL4,6,8,9 S5 F4, JP4 U2

Remarks: Apch to runwys 17-35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.

Tower 119.1 122.5R **Gnd Con** 121.9

App Con 119.1 122.5R

ILS[1] 109.5 I-MLU Apch Brg 039° **LOM:** 219/ML

(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.

Remarks: [1]Glide slope unusable below 320' MSL.

NEW ORLEANS

§NEW ORLEANS-LAKEFRONT *IFR* 4 NE **FSS:** NEW ORLEANS on Fld 10 H57/17-35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2

Remarks: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 290' N. 4424' avbl lndg rnwy 35. 4186' avbl lndg rnwy 17. No ngt operns rnwy 8-26. 1046' (1049' MSL) TV twr 8 NM S. 1049' MSL) TV twr 7 NM SE.

Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7

Radar Services:

New Orleans App Con 125.5 122.7R 118.1

New Orleans Dep Con 120.4

§NEW ORLEANS INTL-MOISANT FLD *IFR* 10 W FSS: NEW ORLEANS (DL) 3 H92/10-28(3) (S-180, T-225, TT-425) BL4,6,8A,9,11,14,15 S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10

Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300-1700Z Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28 threshold displaced 720' SW. Usable length rnwy 28—8507'; rnwy 10-9227'. 720' E of rnwy 28 threshold usable tkof only with approval ctl twr.

Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9

Radar Services:

New Orleans App Con [1]125.5 122.7R 118.1 109.9T

New Orleans Dep Con 120.6

Tfc Info Ctc App Con on 125.5, for other arpts in or transversing the area ctc App Con on 118.1

ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.

Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.

Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.

ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS

New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.

New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 10.

VHF/DF available, contact tower.

Remarks: [1]Acft transitioning New Orleans NAS MCC freq 126.0 during above 5000'; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

SHREVEPORT

§GREATER SHREVEPORT *IFR* 4 SW **FSS:** SHREVEPORT on Fld 257 H73/13-31(2) (S-83, T-120, TT-201) BL4, 6, 8A, 9, F4 **RVV:** Rnwy 13

Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9

Radar Services: (BCN)

Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T

Shreveport Dep Con 119.9

Tfc Info Ctc App Con on 118.5

ILS 110.3 I-SHV Apch Brg 136X **LOM:** 230/SH

Shreveport RBn H-SAB 230/SHV 153° 3.6 NM to rnwy 14.

Remarks: LOM is H-SAB

§SHREVEPORT DOWNTOWN *IFR* 2 N FSS: SHREVEPORT (DL) 179 H45/14-32(3) (S30) BL4 S5 F4

Tower 119.5 122.5R **Gnd Con** 121.7

Radar Services: (BCN)

Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T

Shreveport Dep Con 119.9

(T)VOR 108.6/DTN at fld.

Shreveport (H) BVORTAC 117.4/SHV 159° 13.9 NM to fld.

TIBBY (L) BVORTAC 112.0/TBD FSS: NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA FSS: LAFAYETTE

MAINE

AUGUSTA (L)BVORTAC 111.4/AUG FSS: AUGUSTA

RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR FSS: OLD TOWN

Rng SBRAZ 239/BW

BAR HARBOR RBn MHW 320/BHB FSS: OLD TOWN

BRUNSWICK (L)VOR 116.2/NHZ FSS: AUGUSTA

Rng MRLZ 368/NZ

HOULTON (L)BVOR 108.2/HUL FSS: HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE FSS: PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT FSS: MILLINOCKET

RBn H-SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU

Remarks: Owned and operd by Airport Commission.

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§PORTLAND MUNI *IFR* 2W FSS: PORTLAND on Fld 66 H50/11-29(2) (S-94, T-116, TT-) BL 5, 6, 8A, 9, 10 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 29

Remarks: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27' lctd at the end of rnwy and 800' rgt cntrline. Lesser penetrations lctd 250'-430' from end of rnwy and 720'-890' left cntrline. 1890'-2180' from end of rnwy and 900'-1090' left cntrline.

Tower 120.9 122.5R 109.9T **Gnd Con** 121.9

App Con 120.9

ILS 109.9 I-PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI FSS: HOULTON

PRINCETON (L)BVOR 114.3/PNN FSS: HOULTON

MAINE—*Continued*

ROCKLAND RBn MHW 353/RKD FSS: AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR FSS: HOULTON

WATERVILLE RBn MHW 375/AVI FSS: AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG FSS: WASHINGTON

ANDREWS (L)VORTAC 113.1/ADW

BALTIMORE

§FRIENDSHIP INTL ***IFR*** 8 S **FSS:** WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–100, T–220, TT–500) BL6, 8A, 9, 10, 11
S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10
REIL rnwy 4, 22

Remarks: For Customs use gates A–14 and A–3. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turboprop due noise complaints.

Tower 118.7 122.7R 109.7T **Gnd Con** 121.9

Radar Services:
Baltimore App Con 119.7 125.9[2]
Baltimore Dep Con 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.

ILS[3] 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA
(L) BVORTAC 113.8/BAL on fld.

VHF/DF ctc tower

Remarks: [1]101°–281° [2]282°–100° [3]Glide slope unusable from 400′ inside MM to touchdown. **VOT:** 108.2.

CUMBERLAND RBn MHW 317/CBE FSS: MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK FSS: MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI FSS: WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV FSS: MORGANTOWN

HAGERSTOWN (L)BVOR 109.8/HGR FSS: MARTINSBURG

NOTTINGHAM (L)BVORTAC 116.0/OTT FSS: WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT FSS: SALISBURY

POOLESVILLE RBn MHW 280/PLV FSS: WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY FSS: SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL FSS: SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI FSS: WASHINGTON

MASSACHUSETTS

BEDFORD

§LAURENCE G HANSCOM FLD ***IFR*** 1 S **FSS:** BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11
S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29
REIL: Rnwys 23, 29 **RVV:** Rnwy 11

Remarks: 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. Jet barriers and arresting gear rnwy 11–29. FEE for commercial acft over 5000′ lbs.

Tower 118.5 122.5R **Gnd Con** 121.7

Radar Services:
Boston App Con 124.4

ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE

Bedford (L)VOR 116.0/BED on fld.

Bedford RBn HW 512/BE 112° 4.0 NM to fld.

VHF/DF contact tower.

Remarks: LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF FSS: BOSTON

MASSACHUSETTS—*Continued*

BOSTON

§LOGAN INTL ***IFR*** 1 E **FSS:** BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A[1], 9[2], 10
S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L
RVV: Rnwy 22L

Remarks: FEE. Lndg threshold rnwy 4R displaced 2507′ to NE, 10,000′ avbl except lndg length toward NE restricted to 7493′ during IFR conditions and hrs of darkness. Rnwy 4L–22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. [1]Non-standard cntrline apch lgt sys. [2]Sequence flashers extend only 1200′.

Boston Tower 118.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7

Radar Services: (BCN)
Boston App Con [2]120.6 [1]126.5 126.2 124.4 122.5R 110.3T 382T
Boston Dep Con 119.1 124.4
PAR[4] Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.
ILS 110.3 I–BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I–LIP[3] Apch Brg 330° BC unusable **LOM:** 346/LI

Boston (H)VORTAC 112.7/BOS on fld.

Boston RBn H–SAB 382●/BOS 234° 1.0 NM to fld.

VHF/DF contact tower.

Remarks: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219′ MSL. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR FSS: WINDSOR LOCKS

DEVENS RBn MHW 352/AVE FSS: BOSTON

FALL RIVER RBn MHW 395/FLR FSS: NANTUCKET

FITCHBURG RBn MHW 206/FIT FSS: BOSTON

GARDNER (L)BVORTAC 110.6/GDM FSS: WORCESTER

HYANNIS

§BARNSTABLE MUNI ***IFR*** 1 N **FSS:** NANTUCKET (DL)
52 H55/6–24(2) (S–63, T–110, TT–) BL5, 6, 8A, 9, 11
S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6

Remarks: Poles SE, SW. Rnwy 11–29 open for dalgt lndgs and tkoffs on pilot reg only, and W wind exceeds 14 knots.

Hyannis Tower 119.5 122.5R **Gnd Con** 121.9

Radar Services: (BCN)
Otis App Con 127.7 134.1 116.8T
Otis Dep Con 127.7

ILS[1] 110.5 I–HYA Apch Brg 245° BC unusable **LOM:** 342/HY

Hyannis (L)BVORTAC 108.6HYA 241° 3.2 NM to rnwy 24.

Remarks: [1]Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM FSS: BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY FSS: NANTUCKET

§NANTUCKET MEMORIAL ***IFR*** 3 SE **FSS:** NANTUCKET on Fld
47 H50/6–24(2) (S–31, T–55, TT–) BL5, 6, 8A, 9 S3
F4 DT2 **RVV:** Rnwy 24

Tower [1]118.3 122.5R 109.1T **Gnd Con** 121.9

Radar Services: (BCN)
Otis App Con 118.2 134.1 116.8T
Otis Dep Con 118.2

ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC

Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.

VHF/DF: ctc FSS.

Remarks: [1]Oper 1200–0400Z advisory svc other times.

MASSACHUSETTS—*Continued*

§NEW BEDFORD MUNI ***IFR*** 2 NW **FSS:** NANTUCKET (DL)
79 H50/5–23(2) (S–63, T–110, TT) BL5,6,8, S5 F4 U2 DT2
Remarks: ILS apch zone for rnwy has unlgtd trees protruding above the 7 : 1 slope.
Tower 121.3 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I–EWB Apch Brg 053° **LOM:** 274/EW

NEW ULM RBn MHW 272/ULM
Remarks: VFR use only. Owned and operated by the state.

NORWOOD RBn MHW 212/OWD **FSS:** BOSTON

PITTSFIELD RBn MHW 343/PSF **FSS:** ALBANY

PROVINCETOWN MHW 230/PVC **FSS:** NANTUCKET
Operd Mass Aero Comm

WESTFIELD
§BARNES MUNI ***IFR*** 3 N **FSS:** WINDSOR LOCKS (LC 739–7132)
270 H90/2–20(3) (S–63, T–110, TT–195) BL5, 6 S3 F4, JP4 DT2
Remarks: Jet barrier rnwy 2–20.
Westfield Tower[1] 121.3 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 124.1 134.1 109.2T 114.0T
Westover Dep Con: 124.1 134.1
Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 1200–0400Z.

WHITMAN (L)BVORTAC 109.0/HTM **FSS:** BOSTON

§WORCESTER MUNI ***IFR*** 3 W **FSS:** WORCESTER on Fld
1009 H70 (11–29(3) (S–137, T–180, TT–297) BL6, 7, 12 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: Rnwy 29 threshold displaced 150'.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I–ORH Apch Brg 332° BC unusable **LOM:** 282/OR
Remarks: [1]ILS rnwy 33 glide slope unusable below 1209' MSL acct roughness 750' inside MM to lndg threshold. Auto and manual apchs below the altitude not authorized.

MICHIGAN

ALPENA
§PHELPS COLLINS ***IFR*** 6 W **FSS:** PELLSTON (DL)
689 H90(18–36 (3) (S95–T125–TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: Rnwy 18 9000' avbl lndg, 8000' apbl tkoff. Rnwy 36 8000' avbl lndg. Threshold displaced 1000' rnwy 36. Jet barrier 1050' S of apch end rnwy 18. GCA(ASR-PAR) VFR trng status for availability ctc twr, GCA civil freqs 118.5, 134.1 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5R
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN

BATTLE CREEK
§W K KELLOGG REGIONAL AIRFIELD ***IFR*** 3 W **FSS:** JACKSON (DL)
941 H70/4–22(4) (S–40, T–65, TT–115) BL4,6,8A,9 S5 F5 TP-1
Remarks: Rnwys 9–27, 18–36 clsd dur winter mos. E ramp S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR Adv Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I–BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141' MSL. LOM is MHW.

MICHIGAN—*Continued*

BELLAIRE RBn HW 251/ATM **FSS:** TRAVERSE CITY

BENTON HARBOR RBn MHW 400/BEH **FSS:** SOUTH BEND
Remarks: Privately owned and operated. Public instr flt rule apch procedure predicated on facil.

BOYNE FALLS RBn MHW 263/BFA **FSS:** PELLSTON
Remarks: VFR use only.

CADILLAC RBn MHW 269/CAD **FSS:** TRAVERSE CITY

CARLETON (L)BVORTAC 115.7/CRL **FSS:** DETROIT

CHARLEVOIX RBn MHW 222/CVX **FSS:** PELLSTON

COLDWATER RBn MHW 224/CWM **FSS:** JACKSON

DETROIT
§DETROIT CITY ***IFR*** 5 NE AOE **FSS:** DETROIT on fld
626 H51/15R–33L(3) (S250 T–350 TT) BL4, 11 S5 F4, JP1 U2 **REIL:** Rnwy 15
Remarks: 1063' (1749' MSL) 1057' (1738' MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0
ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226
ILS 111.3 I–DET Apch Brg 146° BC unusable **LOM** 338/DE
Remarks. VOT: 109.8

§DETROIT METROPOLITAN WAYNE ***IFR*** 13 SW AOE
FSS: DETROIT (DL)
639 H105/3L–21R (4) (S–200, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R **REIL:** Rnwy 3R
Remarks: Rnwy 15 threshold displaced 650'. Fee.
Metro Tower 121.1 126.2 122.7R 122.7R 109.3T 110.7T
‡Clrnc Del 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[2] 125.15[1] 123.7[2]
Metro Dep Con 118.4[1] 123.7[2]
Tfc Info Ctc 123.7, 1124.9 App Con.
ASR Rnwy 9, 3L, 3R, 21L, 27, 33 Ceil 400 Vsby 1 mi Min Alt 1039 Rnwy 21R Ceil 500 Vsby 1 mi Min Alt 1139
ILS 109.3 I–DTW Apch Brg 032° **LOM:** 388/DT
110.7[3] I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H–SAB 388●/DT 121°
Remarks: LOM is SAB. [1]001–180, [2]181–360, [3]ILS unusable for auto apchs below 400' AGL. **VOT:** 109.0.

§WILLOW RUN ***IFR*** 19 SW **FSS:** DETROIT (DL)
716 H75/5–23(6) (S–60, T–90, TT–200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500' rnwy 9L not visible from twr. 320' overrun area SW end rnwy 5R–23L usable only tkoff rnwy 5R lndg rnwy 23L.
Tower 121.3 122.6R 109.5T 114.9T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro Dep Con 118.4 123.7
Tfc Info Ctc Metro App Con on 124.9 or 123.7
ILS 109.5 I–YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF contact tower.
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

ESCANABA (L) BVOR 110.8/ESC **FSS:** MARQUETTE (DL)

FLINT
§BISHOP ***IFR*** 3 SW **FSS:** LANSING (DL)
781 H56/9–27 (S–40, T–60, TT–110) BL4,5,6,8A,9 S5 F4 U2 **RVV:** Rnwy 9.

MICHIGAN—*Continued*

Remarks: Rnwy 18 threshold displaced 635′.
Flint Tower 119.5 126.3 122.5R 111.6T 109.9T
Gnd Con 121.9
VFR ADV Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

GAYLORD (T) BVOR 109.2/GLR **FSS:** PELLSTON
Remarks: VFR use only.

GRAND RAPIDS
§KENT COUNTY *IFR* 6 SE **FSS:** SAGINAW
793 H66/8-26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1
U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS 109.7 I-GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: Glide slope unusable below 970′ MSL.

GRAND MARAIS RBn HW 341/GMI **FSS:** MARQUETTE

GROSSE ILE RBn HW 414/NFB **FSS:** DETROIT

HOUGHTON (L)BVOR 112.8/CMX **FSS:** HOUGHTON
RBn H-SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT **FSS:** MARQUETTE

IRONWOOD (L)BVOR 108.8/IWD **FSS:** MARQUETTE

JACKSON
§REYNOLDS MUNI *IFR* 2W **FSS:** JACKSON on Fld
1000 H53/5-23(2) (S-60, T-80, TT-) BL5,11 S5 F4 U2
REIL: Rnwy 23 (1200-0400Z)
Remarks: Rnwy 5 threshold displaced 559′. Rnwy 31 threshold displaced 475′.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clrnc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
Jackson RBn MHW 281/JXN
Remarks: Twr oper 1200-0400Z. TACAN comsng delayed.

§KALAMAZOO MUNI *IFR* 1SE **FSS:** SOUTH BEND (DL)
874 H53/17-35(3) (S-30, T-50, TT85[1]) BL4,6,8A,9 S5 F4 JP5
Remarks: [1](S-40, T-65, TT-110) avail rnwys 5-23 & 9-27. 42′ lgt obstn lctd aprxly 1100′ S and 75′ W apch end rnwy 35 til aprxly August 1966.
Tower[1] 118.3 122.7R 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[2] 110.9 1-AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1062′.

KEELER (L) BVOR 115.1/ELX **FSS:** SOUTH BEND

KINCHELOE (L) VOR 108.6/INR
RBn MHW 410/IN **FSS:** SAULTE STE. MARIE

LANSING
§CAPITAL CITY *IFR* 3NW **FSS:** LANSING on Fld
859 H65/9-27(2) (S-30, T-40, TT) BL5,6,8A,11 S5 F4, JP1 **RVV:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037′ (1889′ MSL) twr 8 NM ESE and 1023′ (1923′ MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.

MICHIGAN—*Continued*

ILS 110.1 I-LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL **FSS:** TRAVERSE CITY

MARQUETTE (L) BVORTAC 109.0/MQT **FSS:** MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM **FSS:** GREEN BAY

MT. PLEASANT (L) BVOR 109.8/MOP **FSS:** SAGINAW

§MUSKEGON CO *IFR* 4S **FSS:** MUSKEGON on Fld
628 H56/14-32(3) (S-40, T-65, TT-110) BL6,8A,9 S5 F4 U2
RVR: Rnwy 32
Remarks: Rnwy 36 threshold displaced 300′. Rnwy 14 threshold displaced 300′.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 1-MKG Apch Brg 317° BC unusable **LOM:** 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828′ MSL.

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

PELLSTON (L) BVOR 111.8/PLN **FSS:** PELLSTON
RBn (H) 332/PLN

§PONTIAC MUNI *IFR* 5W **FSS:** DETROIT (DL)
974 H53/9-27(3) (S-40, T-65, TT-110) BL6 S5 F4 U2
Tower [1]120.5 122.5R 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK
Remarks: [1]Oper 0700-2300 lcl time.

PULLMAN (H) BVORTAC 112.1/PMM **FSS:** SOUTH BEND

REED CITY RBn MHW 275/RCT **FSS:** MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW **FSS:** SAGINAW on fld
667 H56/-5-23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF avail ctc FSS.
Remarks: [1]Oper 0700-2300 lcl time.

SALEM (L) BVORTAC 114.3/SVM **FSS:** DETROIT

§SAULT STE MARIE MUNI *IFR* 1SW AOE
FSS: SAULT STE MARIE on Fld
722 H50/14-32(1) BL5, 11 S3 F4
REIL: Rnwy 14.
VFR ADV: Ctc Kincheloe for APP CON/DEP CON on 119.0.
(H) BVORTAC 112.2/SSM 337° 4.2 NM to fld.
RBn H-SAB 400●/SSM 313° 2NM to fld.

SAWYER (H) VOR 117.5/SAW **FSS:** MARQUETTE
RBn HW 359/SAW

SELFRIDGE (L) VOR 113.4/MTC **FSS:** DETROIT

THREE RIVERS RBn MHW 407/HAI **FSS:** JACKSON

TRAVERSE CITY (L) BVOR 112.4/TVC **FSS:** TRAVERSE CITY
RBn H-SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC **FSS:** MUSKEGON

WHITEFISH (L) BVOR 116.6/FSP **FSS:** SAULT STE MARIE

MINNESOTA

ALEXANDRIA (L) BVOR) 112.8/AXN **FSS:** ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM **FSS:** ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE **FSS:** HIBBING

BEMIDJI (L) BVOR 108.6/BJI **FSS:** HIBBING

BRAINERD (L) BVOR 109.2/BRD **FSS:** ALEXANDRIA

MINNESOTA—*Continued*

DARWIN (L) BVORTAC 109.0/DWN **FSS:** MINNEAPOLIS

§DULUTH INTL *IFR* 5NW (AOE) **FSS:** HIBBING
1429 H101/9-27(3) (S-80, T-112.5, TT-205) BL4,6,8A,9,10
F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9-27
Remarks: Jet barrier 2650′ from apch end rnwy 9 and 600′ from apch end rnwy 27. 1000′ overruns rnwy 9-27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I-DLH Apch Brg 087° **LOM:** 379/DLH
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H-SAB 379●/DLH 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H-SAB. [1]Glide slopes unusuable beyond 12NM.

EVELETH (T) BVOR 108.2/EVM **FSS:** HIBBING

FERGUS FALLS (T) BVOR 110.4/FFM **FSS:** ALEXANDRIA
Remarks: State owned. VFR use only.

FAIRMONT (T)BVOR 110.2/FRM **FSS:** MASON CITY
Remarks: VFR use only.

FARMINGTON (L) BVOR 115.7/FGT **FSS:** MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ **FSS:** HIBBING

HIBBING (L) BVOR 110.8/HIB **FSS:** HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL **FSS:** HIBBING

MANKATO (L) BVOR 110.8/MKT **FSS:** MINNEAPOLIS

MINNEAPOLIS

§CRYSTAL *IFR* 8NW **FSS:** MINNEAPOLIS (DL)
869 H32/13L-31(2) (S-21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Threshold rnwy 5L-23R displaced 400′ landing distance available 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600-2200.

§FLYING CLOUD *IFR* 11SW **FSS:** MINNEAPOLIS (DL)
909 H36/9L-27R(3) (S-14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
(L) VOR 111.8/FCM at fld.
Remarks: [1]Oper 0600-2200.

§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) *IFR* 6S
FSS: MINNEAPOLIS on Fld
840 H100/11R-29L(3) (S-110, T-150, TT-270) BL6,8A,9,10,11
S5, F5 JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4 **RVV:** Rnwy 29L
REIL Rnwy 11R, 22
Remarks: First 1000′ NE end rnwy 4-22 clsd to non-mil acft. Rnwy 11L-29R threshold displaced 610′ SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2
117.3T 111.8T 110.3T 109.3T 108.6T
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 300 Vsby ¾ mi Min Alt 1140
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295° **LOM:** 266/MS
109.3[1] I-APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H-SAB 266●/MSP 287° 2.4NM to fld.
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusable beyond 16 nmi. LOM is H-SAB. **VOT:** 111.0.

NODINE (H) BVORTAC 117.9/ODI **FSS:** LoCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD **FSS:** GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF **FSS:** REDWOOD FALLS

§ROCHESTER MUNI *IFR* 7S **FSS:** ROCHESTER on Fld
1310 H64/13-31(2) (S-126, T-159, TT-260) BL4,6,8A,9 S5 F4, JP4
U2 **RVV:** Rnwy 31
Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.8
App Con 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I-RST Apch Brg 307° **LOM:** 254/RS
(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC **FSS:** MINNEAPOLIS
Remarks: VFR use only.

ST PAUL

§ST PAUL-DOWNTOWN *IFR* 1S **FSS:** MINNEAPOLIS (DL)
703 H55/12-30(3) S-54, T-87, TT-160) BL2,5,11 S5 F5, JP5 U2
REIL: Rnwy 30
Remarks: 4562′ avbl lndg rnwy 12. NE-SW rnwy used as txwy.
St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
117.3T 111.8T 110.3T 109.3T 266T
Minneapolis Dep Con 119.3
Tfc Info Ctc Minneapolis App Con on 126.5.
St Paul (T)VOR 108.6/STP 289° 4.6NM to fld.
Remarks: [1]Oper 1200-0400Z.

THIEF RIVER FALLS (L) BVOR 108.4/TVF **FSS:** GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

WILLMAR (T) BVOR 108.4/ILL **FSS:** REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA **FSS:** LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG **FSS:** REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS **FSS:** TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV **FSS:** MOBILE

GREENVILLE (T) BVOR 110.2/GLH **FSS:** GREENWOOD

MISSISSIPPI—*Continued*

GREENWOOD (H) BVORTAC 114.7/GRW **FSS:** GREENWOOD

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§GULFPORT MUNI *IFR* 3NE **FSS:** MOBILE (LC 436–4242)
28 H90/13–31(3) (S–80, T–120, TT–210) BL4,6 S5 F5, JP1 U2
Remarks: Arrest barrier in oper on Rnwy 13–31. J–bar avbl Rnwy 13–31 on 5 min notice. 1000′ overruns ea end Rnwy 13–31.
Tower 121.3 122.5R 109.0T **Gnd Con** 121.9
App Con 124.6 122.5R 109.0T
(L) BVORTAC 109.0/GPT on fld.

HATTIESBURG (L) BVORTAC 110.6/HBG **FSS:** McCOMB (LC 582–2009)

HOLLY SPRINGS (L) BVOR 112.4/HLI **FSS:** MEMPHIS

JACKSON
§HAWKINS FIELD *IFR* 2NW **FSS:** JACKSON
343 H54/16–34(2) (S–30, T–45, TT–80) BL4,6 S5 F4 JP1 U2
Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW. SW 1615′ (1949′) twr 10 NM WSW.
Tower[3] 118.7 126.2 122.5R ~~121.5~~ 278T
Radar Services:
Jackson App Con 123.9[1] 125.2[2]
Jackson Dep Con 123.9 125.2
Jackson RBn H–SAB 260●/JAN 183° 2.3NM to fld.
Remarks: [1]333°–152°. [2]153°–332°. [3]1200–0400Z.

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§THOMPSON FIELD *IFR* 5E **FSS:** JACKSON on Fld
345 H85/15L–33R(2) (S–120, T–150, TT–265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.
Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7
Radar Services: (BCN)
Jackson App Con 125.2[1] 123.9[2]
Jackson Dep Con 125.2[1] 123.9[2]
ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745
Tfc Info: Ctc App Con
ILS[3] 110.5 I–JAN Apch Brg 153° **LOM:** 365/JA
Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.
VHF/DF ctc twr.
Remarks: [1]153°–332°. [2]333°–152°. [3]Glide slope unusable below 485′.

KEESLER RBn HW 391/BIX **FSS:** MOBILE

KEWANEE (L) BVOR 113.8/EWA **FSS:** MERIDIAN

LAUREL (L) BVOR 108.6/LUL **FSS:** MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB **FSS:** McCOMB

MERIDIAN
§KEY FIELD *IFR* 3SW **FSS:** MERIDIAN on Fld
297 H80/1–19(2) (S–45, T–120, TT–220) BL6 S3 F4, JP3
RVV: Rnwy 01
Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Jet barrier rnwy 1–19. Servicing Fee after 7 P.M.
Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Meridian App Con 120.5
Meridian Dep Con 124.8
ILS 110.1 I–MEI Apch Brg 004° BC unusable **LOM:** 356/ME
Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.
Remarks: [1]Twr opers 1300–0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ **FSS:** McCOMB

PICAYUNE (L) BVOR 112.2/PCU **FSS:** NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP **FSS:** MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR **FSS:** COLUMBIA

BLUE SPRINGS (L) BVOR/DME 113.6/BSP **FSS:** KANSAS CITY

BUTLER (H) BVORTAC 115.9/BUM **FSS:** KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI **FSS:** CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI **FSS:** COLUMBIA

DOGWOOD (L) BVOR 109.4/DGD **FSS:** SPRINGFIELD
Remarks: Class to be BVORTAC Aug 19.

FARLEY RBN MHW 290/FRY **FSS:** KANSAS CITY

FARMINGTON (H) BVORTAC 115.7/FAM **FSS:** CAPE GIRARDEAU

FORNEY (L) VOR 110.0/TBN **FSS:** VICHY
RBn MH 391/TBN

HALLSVILLE (L) BVORTAC 115.4/HLV **FSS:** COLUMBIA

JEFFERSON CITY (L) BVOR 110.2/JEF **FSS:** COLUMBIA

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§JOPLIN MUNI *IFR* 4NE **FSS:** JOPLIN on Fld
980 H55(3) BL4,6 S5 F4 U1
Remarks: 999′ (2049′ MSL) twr 5 NM SSW.
ILS[1] 110.3 I–JLN Apch Brg 131° **LOM:** 219/JL
Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

KANSAS CITY
§MID-CONTINENT INTL *IFR* 15NW **FSS:** KANSAS CITY
1011 H90/18–36(1) (S–100, T–188, TT–350) BL6,8A,9
RVR: Rnwy 36
Tower 120.7 **Gnd Con** 121.8
Radar Services:
Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
ILS 110.5 I–MCI Apch Brg 005° **LOM:** 359/MC
RBn H–SAB 359/MC 005° 4.4 to rnwy 36.
Remarks: [1]E sector. [2]W sector. LOM is H-SAB.

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§KANSAS CITY MUNI *IFR* 4N **FSS:** KANSAS CITY on Fld
758 H70/18–36(3) (S–110, T–165, TT–365) BL4,6,8A,9,11,13 S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36
Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.
Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
Dep Con 118.1
Tfc Info: Ctc App Con
PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.
ILS[3] 109.9 I–MKC Apch Brg 187° BC unusable **LOM:** 219/MK
(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.
Riverside (T) BVOR 111.4/RIS on fld.
VHF/DF contact tower.
Remarks: Acft approaching from 001–180° use 118.9 and/from 179°–360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. **VOT:** 108.6.

KIRKSVILLE (H) BVORTAC 114.6/IRK **FSS:** KIRKSVILLE

LAKE RBn HW 385/LAQ **FSS:** ST. LOUIS

MACON (L) BVOR 112.9/MCM **FSS:** KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW **FSS:** CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP **FSS:** VICHY

MARSHALL (L) BVOR/DME 109.6/MHL **FSS:** COLUMBIA

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS **FSS:** ST LOUIS

MISSOURI—*Continued*

NEOSHO (L) BVOR 116.6/EOS FSS: JOPLIN

READSVILLE (L) BVOR 112.0/REA FSS: COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW FSS: KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW FSS: ST. LOUIS

ST JOSEPH
§ROSECRANS MEMORIAL ***IFR*** 3WNW FSS: KANSAS CITY (DL)
826 H80/17-35(3) (S-60, T-160, TT-250) BL4,6,8 S5 F4
RVV: Rnwy 35
Tower 119.9 122.5R **Gnd Con** 121.9
Kansas City App Con 121.1 126.2 122.7R 118.9
Kansas City Dep Con 118.1
ILS[1] 110.3 I-STSJ Apch Brg 352° **LOM:** 260/ST
(L) BVORTAC 108.2/STJ 167° 10.7NM to fld.
Remarks:[1] ILS unusable below 1060′

ST. LOUIS
§LAMBERT-ST LOUIS ***IFR*** 10NW FSS: ST. LOUIS on Fld
571 H100/12R-30L(4) (S-100, T-200, TT-400) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24
Remarks: Arresting gear rnwy 12R-30L. Threshold lgts permly relctd 476′ SE apch end rnwy 12R.
St. Louis Tower 118.5 126.2 122.7R **Gnd Con** 121.9
ATIS[4]: 110.3 109.7
‡Clrnc Del 119.5
Radar Services:
St. Louis App Con 126.5[1] 123.7 118.1[2]
117.4T 110.3T 109.7T **St. Louis Dep Con** 119.9
Tfc Info Ctc St. Louis App Con.
PAR[3] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° **LOM:** 404/ST
109.7 I-LMR Apch Brg 117° **LOM:** 338/LM
VHF/DF available, contact tower.
St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.
St. Louis RBn (H-SAB) 338●/LM 117° 5.3NM to fld.
Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [3]Radar monitoring of instrument apchs only at pilot's request. LOM is H-SAB. [4]Opers 0600-2400 lcl. **VOT:** 111.0

§ SPIRIT OF ST. LOUIS 20W FSS: ST. LOUIS (DL)
462 H51/7-25(1) (S-30) BL6 S5 F4 DT2
Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, lndgs not authorized.
Tower[1] 121.3 122.5R 121.5X **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.
Remarks: [1]Opers 1200-0300Z. [2]Southeast arrivals. [3]Northwest arrivals.

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§SPRINGFIELD MUNI ***IFR*** 5NW FSS: SPRINGFIELD on Fld
1267 H56/1-19(2) (S-65, T-95, TT-165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1
Tower 119.9 122.5R **Gnd Con** 121.9
VFR ADV 125.8
App Con 125.8 122.5R 116.9T 109.9T
ILS[1] 109.9 I-SGF Apch Brg 015° **LOM:** 404/SG
(H) BVORTAC 116.9/SGF 193° 6.8NM to fld
RBn H-SAB 254●/SGF 137° 3.6NM to fld
VHF/DF: ctc FSS.
Remarks: [1]Glide slope unusable below 1325 ft MSL.

VICHY (L) BVORTAC 117.7/VIH FSS: VICHY

WHITEMAN (L) VOR 109.0/SZL FSS: COLUMBIA
RBn HW 314/SZL

MONTANA

BILLINGS
§LOGAN FIELD ***IFR*** 2NW **FSS:** BILLINGS on Fld
3606 H86/9-27(3) (S-130, T-200, TT-400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9
Remarks: 1000′ overrun each end rnwy 9-27.
Billings Tower 118.3 122.5R
VFR ADV: 120.5
Billings Gnd Con 121.9
Billings App Con 120.5 122.5R 114.5T 110.3T
ILS[1] 110.3 I-BIL Apch Brg 095° **LOM:** 251/BI
Billings (H) BVORTAC 114.5/BIL 070° 3.2NM to fld
Billings RBn H-SAB 400 /BIL 243° 1.4NM to fld
VHF/DF: Avail ctc FSS.
Remarks: [1]Not approved for auto apchs.

BOZEMAN (L) BVOR 112.2/BZN **FSS:** BOZEMAN
RBn H-SAB 329●/BZN

BUTTE (L) BVORTAC 111.6/BTM **FSS:** BUTTE

CUT BANK (L) BVORTAC 114.4/CTB FSS: CUT BANK
RBn[1] **BH** 263/CTB
Remarks: [1]VFR use only.

DILLON (H) BVORTAC 113.0/DLN FSS: DILLON
RBn[1] **BH** 379/DLN
Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU FSS: MISSOULA

GLASGOW (H) VOR 113.9/GSG FSS: MILES CITY
RBn H 236/GSG

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§GREAT FALLS INTL ***IFR*** 3SW FSS: GREAT FALLS on Fld
3671 H90/3-21(4) (S-60, T-80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34
Remarks: Rnwy 7-25 not authorized to acft over 64,000 lbs GWT. Jet barrier rnwy 3-21.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1
119.3 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.1 119.3 or 122.7R
ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171
ILS 110.3 I-GTF Apch Brg 341° BC unusable **LOM:** 407/GT
(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld
RBn H-SAB 371/GTF 009° 0.9 NM to fld

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§HELENA ***IFR*** 2NE **FSS:** HELENA on Fld
3873 H70/8-26(3) (S-90, T-120, TT-200) BL 5,11 S5 F4, JP1 U2 **REIL** rnwy 26
Remarks: Rnwy 11-29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
(H) BVORTAC 117.7/HLN at fld.
RBn SBH 317/HLN VFR use only.

KALISPELL (L) BVOR 108.4/FCA **FSS:** MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT **FSS:** LEWISTOWN
RBn[1] **SBH** 353/LWT
Remarks: [1]VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM FSS: LIVINGSTON
RBn[1] **BH** 224/LVM
Remarks: [1]VFR use only.

MALMSTROM (L) VOR 116.3/GFA **FSS:** GREAT FALLS

MILES CITY (H) BVORTAC 112.1/MLS **FSS:** MILES CITY
Rbn (H-SAB) 320 /MLS

MONTANA—*Continued*

§MISSOULA CO *IFR* 4NW **FSS:** MISSOULA on Fld
3203 H-70/11-29(3) (S-120, T-155, TT-235) BL6 S5 F4 U2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1]Oper 1300–0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA **FSS:** BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA **FSS:** SCOTTSBLUFF
RBn[1] **HW** 287/AIA
Remarks: [1]Owned by State.

BEATRICE (T) BVOR 110.6/BIE **FSS:** LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR **FSS:** CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

COLUMBUS (T) BVOR 110.4/OLU **FSS:** LINCOLN
Remarks: Owned by State.

§GRAND ISLAND MUNI *IFR* 4NE **FSS:** GRAND ISLAND on Fld
1846 H72(3) (S-42, T-65, TT-125) BL5,6,8A,9 S5 U-1 F5, JP-1
Remarks: 1000′ asphalt overrun both ends rnwy 17-35. BAK/12 arresting gear lctd 90′ in overrun rnwy 35 and 80′ in overrun rnwy 17.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1]Oper 1200–0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI **FSS:** GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT **FSS:** IMPERIAL

IMPERIAL RBn BH 391/IML **FSS:** IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN **FSS:** SIOUX CITY CS/T

KEARNEY (T) VOR 111.2/EAR **FSS:** GRAND ISLAND
Remarks: Owned by state.

§LINCOLN MUNI/AFB *IFR* 4NW **FSS:** LINCOLN on Fld
1198 H129/17R-35L(2)[1] (Max-15) BL6,8A,9,11 S5
F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: [1]All civ acft use 4000′ rnwy 17L-35R except Max 30, BL6 in actual IFR conditions or when acft manufacturers' recommendations rqr the use of rnwy 17R-35L. Ctn-jet tfc. Rnwy 17L-35R (S-31, T-50, TT-87)
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I-LNK Apch Brg 351° **LOM:** 385/LN
RBn MHW 385/LN
Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC.

McCOOK (L) BVOR 110.0/MCK **FSS:** NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK **FSS:** OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF **FSS:** NORTH PLATTE
RBn H-SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD *IFR* 3NE **FSS:** OMAHA on Fld
983 H85/14-32(2) (S-180, T-200, TT-400) BL4,8A,9,11,12 S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: US Customs lndg rgts arpt.

NEBRASKA—*Continued*

Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R 116.3T[2]
Omaha Dep Con 124.5 118.0 122.5R[2]
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I-OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H-SAB 320●/OM 136° 4.1 NM to rnwy 14.
Remarks: [1]BC unusable beyond 16 NM. [2]Freqs for Shenandoah, Iowa. LOM is H-SAB.

O'NEILL (H) BVORTAC 113.9/ONL **FSS:** GRAND ISLAND

PAWNEE CITY (H) BVORTAC 112.4/PWE **FSS:** LINCOLN

RAYMOND (L) BVORTAC 116.0/RAY **FSS:** LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF **FSS:** SCOTTSBLUFF
RBn MHW[1] 341/BFF
Remarks: [1]Operd by State.

SIDNEY (H) BVOR 115.7/SNY **FSS:** SIDNEY

WOLBACH (H) BVORTAC 114.7/OBH **FSS:** GRAND ISLAND

NEVADA

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM **FSS:** ELKO

BEATTY (H) BVORTAC 114.7/BTY **FSS:** TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD **FSS:** LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL **FSS:** TONOPAH

CURRANT (L) BVOR 113.4/URR **FSS:** ELY

ELKO (L) BVORTAC 114.5/EKO **FSS:** ELKO
RBn SBH 391/EKO

ELY (L) BVOR 110.6/ELY **FSS:** ELY

HAZEN (L) BVORTAC 114.1/HZN **FSS:** LOVELOCK

INDIAN SPRINGS RBn HW 215/INS **FSS:** LAS VEGAS

LAS VEGAS
§McCARRAN *IFR* 5S **FSS:** LAS VEGAS on fld.
2171 H125/7-25(3) (S-100, T-200, TT-380) BL4,6,10 S5 F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750′W end. 11,795′ avbl lndg rnwy 7 and tgof rnwy 25 day/ngt. 12545′ avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625′ SW end. 6878′ avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503′ avbl lndg rnwy 19 and tgof rnwy 1 day/ngt . Rnwy 32 threshold displaced 379′ SE end. 4021′ avbl rnwy 32 day/ngt. 4400′ avbl tkof rnwy 32 day only. 4021′ avbl tkof rnwy 32 ngt only. 4400′ avbl lndg rnwy 14 day only. 4021′ avbl lndg rnwy 14 ngt only. 4021′ avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 125.9 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H-SABZ 206●/LAS 196° 8.5 NM to rnwy 19.

LOVELOCK (L) BVORTAC 116.5/LOL **FSS:** LOVELOCK

MERCURY RBn HW 326/MCY **FSS:** LAS VEGAS

MINA (L) BVOR 113.1/MVA **FSS:** TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM **FSS:** LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO **FSS:** LOVELOCK

NEVADA—*Continued*

§RENO MUNI ***IFR*** 2SE **FSS:** RENO on Fld
441 H90/16–34(2) (S–100, T–160, TT–250)* BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: A-gear each threshold rnwy 16–34. *Rnwy 7–25 S–100, T–200, TT–350).
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 254T
ILS 109.3 I–RNO Apch Brg 162° **LMM:** 254/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn SBH 254/RNO 161° 2.3NM to fld.
Remarks: LMM is SBH.

SOD HOUSE (L) BVOR 114.3/SDO **FSS:** LOVELOCK

SPARKS RBn MHW 329/SPK **FSS:** RENO

TONOPAH (L) BVORTAC 117.2/TPH **FSS:** TONOPAH

WELLS (L) BVOR 114.2/LWL **FSS:** ELKO

WILSON CREEK (H) BVOR 116.3/ILC **FSS:** CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML **FSS:** CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON **FSS:** CONCORD

KEENE (L) BVOR 109.4/EEN **FSS:** CONCORD
RBn MHW[1] 224/EEN
Remarks: [1]Oper by State.

LACONIA RBn MHW 400/LCI **FSS:** MONTPELIER
Remarks: Oper by State.

LEBANON (L) BVOR 113.7/LEB **FSS:** LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) ***IFR*** 4S **FSS:** CONCORD (LC 669–1641)
233 H70/17–35(2) (S–127, T–200, TT–400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower[1] 121.3 126.2 122.5R
ILS 108.3 I–MHT Apch Brg 352° BC unusable
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW[2] 338/MHT 352° 3.5NM to fld.
Remarks: [1]Oper 1000–0300Z. [2]Oper by State.

NASHUA RBn MHW 260/AMH **FSS:** CONCORD (LC 889–0301)
Remarks: Oper by State.

NORTH CONWAY RBn MHW 334/CWN **FSS:** CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR
Remarks: To be in common system.

WHITEFIELD RBn MHW 272/HIE **FSS:** LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) ***IFR*** 9NW
FSS: MILLVILLE (LC 399–8096)
76 H100/13–31(4) (S–63, T–88, TT–160) BL4,6,8A,9 S3 F5, JP4 DT2
Remarks: Fee. BAK/9 arresting gear installed 2000′ from threshold rnwy 13 and 1000′ from threshold rnwy 31. Pendant 1½″ steel cable stretched across rnwy 31; ½–4″ above surface with rubber doughnuts extending 6″ above surface. Pendant may gyrate. Unlgtd frangible distance to go mrkrs every 1000′ each side rnwy 13–31.

NEW JERSEY—*Continued*

Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I–ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlanta City NAFEC (L) VORTAC 108.6/ACY at NAFEC
VHF/DF contact tower.
Remarks: [1]400 authoriezd for rnwys 13, 17, 22, 26, 31.

BARNEGAT (L) BVOR 116.7/BGT **FSS:** MILLVILLE

CHATHAM RBn MHW 254/CAT **FSS:** NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL **FSS:** TETERBORO

COYLE (H) BVORTAC 113.4/CYN **FSS:** MILLVILLE

LAKEHURST RBn HW 396/NEL **FSS:** N. PHILADELPHIA

MILLVILLE (L) BVORTAC 115.2/MIV **FSS:** MILLVILLE
Rng SBRAZ 363/MV

§MORRISTOWN MUNI ***IFR*** 2E **FSS:** TETERBORO (LC JE8–2196)
187 H40/4–22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 800′ rnwy 22. Ngt trng flts by nonbased acft prohibited. Due obstns, ramp and txwys not ctld by twr.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6[2] 124.3[3] 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: [1]Oper 1200–0400Z. [2]270–089° [3]090–269°

§NEWARK MUNI ***IFR*** 2 S **FSS:** TETERBORO (DL)
18 H70/4–22(2) (S–115, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE.
Tower 118.3 126.2 122.7R 110.3T 109.3T 109.1T
‡Clrnc Del 121.4 **Gnd Con** 121.9
ATIS: 109.1 or 110.3 (Arr)
Radar Services: (BCN)
App Con 120.6 [2] 124.3 [3] 122.7R 110.3T 109.3T
Dep Con 119.2 127.6
Tfc Info Inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I–EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW[4]
109.1 I–ARK Apch Brg 217° **LOM:** 242/AR
RBn H–SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF contact tower.
Remarks: [1]Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix [2]270–089° [3]090–269° [4]LOM unusable beyond 12 mi 050–090°. **VOT:** 108.6

PALISADE PARK MHW 233/PAD

PATERSON RBn MHW 347/PNJ **FSS:** TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV **FSS:** N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE **FSS:** MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ **FSS:** TETERBORO

SPARTA (L)BVORTAC 112.3/SAX **FSS:** TETERBORO

STILLWATER (L) BVORTAC 109.6/STW **FSS:** TETERBORO

§TETERBORO MUNI ***IFR*** 1 SW **FSS:** TETERBORO on Fld
7 H50/6–24(3) S–50, T–80, TT–) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission.

NEW JERSEY—*Continued*

Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14–32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I–TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY ***IFR*** 4 NW **FSS:** N. PHILADELPHIA (LC. 882–1590)
213 H52/6–24(3) S–31.5, T–51, TT–) BL4,11,12,[1] S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. [1]1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R 109.3T
Philadelphia Dep Con 119.0[1] 128.55[2]
ILS 111.3 I–TTN Apch Brg 065° **LOM:** 369/TT
Remarks: [1]270–089°. [2]090–269°.

WOODSTOWN (L)BVOR 112.8/00D **FSS:** MILLVILLE

NEW MEXICO

ALAMOGORDA RBn HWZ 375/ALM **FSS:** ROSWELL

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB ***IFR*** 3 SE **FSS:** ALBUQUERQUE on Fld
5352 H127/8–26(4) (S–158, T–200, TT–400) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVR:** Rnwy 35
Remarks: Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC–3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
ATIS: 110.3
Gnd Con 121.9
Clrnc Del 119.2
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
Albuquerque Dep Con 123.9
Tfc Info Ctc App Con 25 mi out on 121.1.
PAR[2] Rnwy 8[1] Ceil 300 Vsby ¾ mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I–ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: [1]500–1½ rqrd for civil jet acft. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO (L)BVOR–DME 110.0/ACH **FSS:** LAS VEGAS

CANNON (L) VORW 115.7/CVS **FSS:** TUCUMCARI
RBn HW 272/CVS

CARLSBAD (L)BVOR 116.3/CNM **FSS:** CARLSBAD

CIMARRON (H) BVORTAC 116.4/CIM **FSS:** TRINIDAD

COLUMBUS (L) BVORTAC 111.2/CUS **FSS:** DEMING

CORONA (L) BVOR 115.5/CNX **FSS:** ALBUQUERQUE

DEMING (L) BVOR 108.6/DMN **FSS:** DEMING

§FARMINGTON MUNI ***IFR*** 2 NW **FSS:** FARMINGTON of Fld
5503 H67(2) (Max–60) BL4 S5 F4 U2
Tower[1] 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF: ctc FSS.
Remarks: [1]Oper 1300–0500Z.

NEW MEXICO—*Continued*

GALLUP (H)BVORTAC 115.1/GUP **FSS:** ZUNI

GRANTS (L)BVORTAC 116.5/GNT **FSS:** GRANTS

§HOBBS, LEA COUNTY ***IFR*** 4 W **FSS:** HOBBS on Fld
3659 H63/3–21 (4) (S–115 T–200 TT–400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN (L)VORW 115.8/HMN **FSS:** ROSWELL

LAS VEGAS (H) BVORTAC 117.3/LVS **FSS:** LAS VEGAS

OTTO (L) BVOR 114.0/OTO **FSS:** ALBUQUERQUE

PINON (L) BVOR 110.4/PIO **FSS:** EL PASO

§ROSWELL MUNI ***IFR*** 1 NW **FSS:** ROSWELL on Fld
3623 H58/17–35(4) (S–42, T–60, TT–110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 120.2 122.7R
Walker Dep Con 123.8
Tfc Info Ctc Walker App Con 30 mi out at 10,000′ and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn SABH[2] 305●/ROW 312° 7.9 NM to fld.
Remarks: [1]Oper 1300–0500Z. [2]Oper 1200–0500Z.

§SANTE FE COUNTY MUNI ***IFR*** 9 SW **FSS:** SANTA FE on Fld
6344 H83/2–20 (3) (S–45, T–60, TT–) BL4 S5 F4, JP1 U2
Tower 126.2 122.5R 119.5 **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO (H) BVORTAC 116.8/ONM **FSS:** ALBUQUERQUE

TAOS (L) BVOR 117.6/TAS **FSS:** SANTA FE

TRUTH OR CONSEQUENCES (H) BVORTAC 112.7/TCS **FSS:** TRUTH OR CONSEQUENCES

TUCUMCARI (H) BVORTAC 113.6/TCC **FSS:** TUCUMCARI

WALKER RBn MHW 396/LK **FSS:** ROSWELL

ZUNI (L) BVORTAC 113.4/ZUN **FSS:** ZUNI

NEW YORK

§ALBANY COUNTY ***IFR*** 6 NW AOE **FSS:** ALBANY on Fld
288 H50/1–19 (3) (S–110, T–200, TT–400) BL4,6,8A,9,11 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S, trees SE. Rnwy 15–33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I–ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: VOT: 109.0

ALPINE RBn MHW 245/ALP **FSS:** ELMIRA

AVON RBn MHW 344/AVN **FSS:** ROCHESTER

BABYLON RBn MHW 275/BBN **FSS:** NEW YORK

BECKSGROVE RBn MHW 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY ***IFR*** 7 N **FSS:** BINGHAMTON on Fld
1629 H56/16–34(2) (S–94.5, T–135, TT–) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34
Binghamton Tower 119.3 122.5R 114.3T 112.1T
Gnd Con 121.9
Radar Services: (BCN)

NEW YORK—*Continued*

Binghamton App Con 118.6 **Binghamton Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I–BGM Apch Brg 338° BC unusable **LMM:** 203/GM
Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.
Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO

§GREATER BUFFALO INTL *IFR* 5 E AOE FSS: BUFFALO on Fld
722 H81/5–23(2) (S–120, T–180, TT–400) BL4, 6, 11 S5 F5, JP1, JP4, JP5 DT2
Remarks: Fee.
Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7
Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7 110.3T
Buffalo Dep Con 125.5
Tfc Info Inbnd acft ctc Buffalo App Con on 126.5 or 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 110.3 I–BUF Apch Brg 052° BC unusable. **LOM:** 204/GB
Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld
Buffalo RBn BH 260/BUF 211° 0.9 nm to fld
VHF/DF contact Buffalo App Con
Remarks: **VOT:** 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM FSS: GLENS FALLS

CANARSIE (T) VORW 111.0/CRI FSS: JFK TWR

CARMEL (L) BVORTAC 116.6/CMK FSS: TETERBORO

DEER PARK (L) VORTAC 111.2/DPK FSS: NEW YORK

DE LANCEY (L) BVOR 112.1/DNY FSS: BINGHAMTON CS/T

DUNKIRK (L) BVOR 114.2/DKK FSS: BUFFALO

ELMIRA

§CHEMUNG COUNTY *IFR* 5 NW FSS: ELMIRA on Fld
951 H56/6–24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2
Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.5 122.5R 120.0[1]
ILS 109.1 I–ELM Apch Brg 239° BC restricted
Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.
Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.
Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE FSS: BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT FSS: UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL FSS: GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO FSS: NEW YORK

HANCOCK (L) BVORTAC 109.0 HNK FSS: BINGHAMTON CS/T

HUGUENOT (H) BVORTAC 116.1/HUO FSS: WILKES-BARRE

ISLIP

§LONG ISLAND–MacARTHUR *IFR* 7 NE FSS: NEW YORK on Fld
98 H50/6–24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6
Remarks: Trees E.
Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7
Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
ILS 108.3 I–ISL Apch Brg 057° **LOM:** 366/IS
VHF/DF: ctc FSS.
Remarks: [1]054–110°. [2]110–160°.

NEW YORK—*Continued*

ITHACA (L) BVOR 111.8/ITH FSS: ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW FSS: BRADFORD

KINGSTON (L) BVOR 117.6/IGN FSS: POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS FSS: MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF FSS: POUGHKEEPSIE
RBn MHW 335/SWF

NEW YORK

§JOHN F KENNEDY INTL *IFR* 11 SE FSS: NEW YORK (DL)
12 H146/13R–31L(5) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 13L, 13R
RVR: Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]
Remarks: Fee. Clsd to fightertype, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R–31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3324′. Rnwy 7–25 clsd duration winter due constrn. Rnwy 4L–22R extended to 11,350′ with lndg threshold rnwy 22R displaced 3020′. Rnwy 13L displaced threshold usable length 7739′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Nonstandard. Lead in lgts rnwys 13L and 13R. Rnwy 13R usable 7884′; rnwy 31L usable 6884′.
Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡Clrnc Del 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5
Radar Services: (BCN)
Kennedy App Con 127.4 134.1 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
PAR Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 22R Ceil 500 Vsby 1 mi Min Alt 512.
Rnwys 31R Ceil 400 Vsby 1 mi Min Alt 412.
ILS 109.5 I–JFK Apch Brg 042° **LOM:** 373/JF[4]
110.9 I–IWY Apch Brg 222° **LOM:** 226/IW
111.5 I–RTH[3] Apch Brg 311° BC unusable. **LOM:** 268/RT
Kennedy (H) BVORTAC 115.9/JFK on fld.
Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.
VHF/DF[1] contact Tower.
Remarks: [1]054–110°, [2]110°–160°. [3]Glide slope shutdown until July 1. [4]LOM is MHW. **VOT:** 112.5.

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§LA GUARDIA *IFR* 4E FSS: TETERBORO (DL)
21 H70/4–22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4
REIL: Rnwy 13–31, 22
Remarks: Fee. Rnwy threshold displaced 175′ NW. 5813′ avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. Rnwy 4 clsd to turbo jet acft lndg. Rnwy 22 clsd to turbojet acft tkof. 1465′ (1520′ MSL) twr 5 NM WSW. Mag anomalies may affect compass heading when using extensions rnwys 13 and 22 for tkof.
FAA Dep Proc: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
Tower 118.7 122.7R 113.1T 109.9T 108.5T 110.5T
‡Clrnc Del 126.15 **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 1085T 110.5T
Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [4]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.
ILS 109.9 I–LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I–GDI[1] Apch Brg 134°
110.5 I–URD[3] Apch Brg 223° BC unusable **LOM:** 385/UR
La Guardia (L) VOR–DME 113.1/LGA 177° 0.4 NM to fld

NEW YORK—*Continued*

Palisade Park MHW 233/PAD
VHF/DF contact App Con.
Remarks: Flwg shut down indef due arpt constrn: Rnwy 22 apch lgts; Rnwy 4 ILS, PAR adv svc to Rnwy 22. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000–3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235–245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 109.0.

§NIAGARA FALLS MUNI *IFR* 4 E **FSS:** BUFFALO (DL)
590 H91/10L–28R(4) (S–90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
Remarks: No signal SS–SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.
Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5 110.3T 278T
Buffalo Dep Con 125.5
ILS 110.1 I–IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF contact tower.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200–0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

§ROCHESTER-MONROE CO *IFR* 3 SW AOE
FSS: ROCHESTER on Fld
560 H70/4–22(5) (S–126, T–160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS–SR to indicate IFR conditions.
Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I–ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I–MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON CS/T

ROME RBn HW 212/RME **FSS:** UTICA

SARANAC LAKE (L) BVOR 111.2/SLK **FSS:** MASSENA

§SCHENECTADY COUNTY *IFR* 2 N **FSS:** ALBANY (DL)
378 H70/4–22(3) (S–52) BL4, 6 S5
F5, JP5 DT2
Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr. Rnwy 28, 15 and 33 apch restricted by trees.
Tower[1] 126.2 121.3 1225R 356T

NEW YORK—*Continued*

Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF ctc twr.
Remarks: Opers 1200–0400Z.

SYRACUSE
§HANCOCK *IFR* 4 NE **FSS:** SYRACUSE on Fld
421 H90/10–28(3) (S–120, T–190, TT–350) BL4, 6, 8A, 9, 14 S5 F5, JP4 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 6–24 limited to acft under 12,500 lbs GWT.
Syracuse Towerr 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 125.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I–SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY *IFR* 7 NW **FSS:** UTICA on Fld
742 H60/15–33(2) (S–60, T–80, TT) BL4, 6, 8A, 9 S5 F2 U2 DT2 **RVV:** Rnwy 33.
Remarks: Rgt tfc rnwys 9 & 15.
Utica Tower 118.1 122.5R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.5R
Griffiss Dep Con 120.9
ILS 109.3 I–UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WESTHAMPTON BEACH
SUFFOLK COUNTY (T) VOR 110.4/FOK **FSS:** NEW YORK

WHITE PLAINS
§WESTCHESTER COUNTY *IFR* 3NE **FSS:** NEW YORK
439 H65/16–34(3) (S–63, T–110, TT–275) BL4, 8A, 9 S5 F5, JP5 U2 DT2
Remarks: Trees NW, SE. Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I–HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI *IFR* 9 S **FSS:** GREER (LC 684–4401)
2161 H65/16–34(1) (S–100, T–160, TT–275) BL6,8A,9,10 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.
Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I–AVL Apch Brg 342° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA **FSS:** ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB **FSS:** WILMINGTON CS/T

NORTH CAROLINA—*Continued*

CHARLOTTE
§DOUGLAS MUNI *IFR* 4 W FSS: HICKORY (LC 332-8161)
748 H78/18-36 (2) (S-60) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932′ MSL) twr 10 NM ENE. Rnwy 18 threshod displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148
ILS[2] 109.5 I-CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L) BVORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. **VOT:** 112.0

COFIELD (L) BVORTAC 114.4/CVI FSS: ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG FSS: ELIZABETH CITY

FAYETTEVILLE
§GRANNIS FIELD *IFR* 3 S FSS: FAYETTEVILLE on Fld
189 H50/3-21(2) (S-64, T-120, TT-200) BL4,6,8A,9 S5 F4, JP4
RVV: Rnwy 3
Remarks: Trees NNW, SSE.
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I-GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB FSS: ROCKY MOUNT

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG FSS: ROCKY MOUNT

§GREENSBORO-HIGH POINT/WINSTON-SALEM *IFR* 7 W
FSS: RALEIGH (LC BR 56341)
926 H64/14-32(2) (S-40, T-140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Remarks: Rnwy 5 threshold displaced 290′.
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Greensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1326
ILS[1] 109.9 I-GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY FSS: HICKORY

KINSTON (L) BVORTAC 109.6/ISO FSS: NEW BERN

LIBERTY (L) BVOR 111.2/LIB FSS: RALEIGH-DURHAM

NEW BERN (L) BVOR 108.4/EWN FSS: NEW BERN

PINEHURST (L) BVORTAC 111.8/SOP FSS: FAYETTEVILLE

§RALEIGH-DURHAM *IFR* 9 NW FSS: RALEIGH on Fld
435 H75/5-23(3) (S-110, T-160, TT-270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: No signal btn SS-SR indicate gnd vsby of less than 2.6 NM and/or ceil less than 1000.

NORTH CAROLINA—*Continued*

Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 122.5R 120.6
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I-RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H-SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 635′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT FSS: ROCKY MOUNT

SEYMOUR-JOHNSON AFB (L) VOR 116.5/GSB FSS: ROCKY MOUNT
RBn MHW 285/GSB
ILS[1] 109.3 I-GSB Apch Brg 077° BC unusable **LOM** 285/GSB
Remarks: LOM is MHW. [1]Glide slope unusable below 309′.

WEEKSVILLE RBn (HW) 254/EKV FSS: ELIZABETH CITY

WILMINGTON
§NEW HANOVER CO *IFR* 2 NE FSS: NEW BERN
(LC 762-7567)
31 H80/5-23(3) (S-120, T, TT)* BL4, 6, 8A, 9 S5
F5, JP5
Remarks: *(S-90, T-120, TT-212) avbl rnwy 5-23 (S-30, T-48, TT-86) avbl rnwy 9-27 Rnwy 9 threshold displaced 2875′ E. Usable length rnwys 9 and 27. 4127′. Due non-vsby some areas of fld, ctc twr. Jet aresting gear rnwy 16-34.
Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9
Clrnc Del 121.9
Wilmington App Con 118.8 122.5R 110.3T
ILS[1] 110.3 I-ILM Apch Brg 343° **LOM:** 281/IL
Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.
Remarks: [1]Glide slope unusable below 231′.

WINSTON-SALEM
§SMITH REYNOLDS *IFR* 2NE FSS: HICKORY
969 H66/15-33(3) (S-40, T-85, TT-105) BL4, 6, 8, 12 S5
F5, JP5 U2 **RVV:** Rnwy 33.
Remarks: Apch lgts oper 0700-2300 only. Rnwy lgts 15-33 only oper 2300-0700. Rnwy 3-21 (S-56, T-85, TT-105)
Winston-Salem Tower[1] 118.7 126.2 122.7R 278T
Gnd Con 121.7
Radar Services: (BCN)
Greensboro App Con 118.5 122.5R 120.9 109.9T
Greensboro Dep Con 124.6
ILS[2] 110.3 I-INT Apch Brg 328° BC unusable **LOM:** 317/IN
Remarks: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300-0700 EST daily.

NORTH DAKOTA

§BISMARCK MUNI *IFR* 2 SE FSS: BISMARCK on Fld
1677 H69/12-30(3) (S-78, T-114, TT-190) BL4, 6, 8 S5
F4 JP4 U2 **RVV:** Rnwy 30
Remarks: Rnwys 17-35, 2-20 and E-W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to lndg acft. Rnwy 2 threshold displaced 530′ SW end. Rnwy 12 threshold displaced 817′ NW end.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
ILS 110.3 I-BIS Apch Brg 306° **LOM:** 215/BI
(L) BVORTAC 116.5/BIS 272° 3.6 NM to fld
RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB FSS: MINOT

DEVILS LAKE (L) BVOR 111.0/DVL FSS: GRAND FORKS

NORTH DAKOTA—*Continued*

DICKINSON (H) BVORTAC 112.9/DIK **FSS:** DICKINSON
RBn BH[1] 308/DIK
Remarks: [1]VFR use only.

FARGO
§HECTOR FIELD *IFR* 2NW **FSS:** FARGO on Fld
900 H91/17–35(3) (S–90, T–120, TT) BL4,6, 8A,9 S5
F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35
Fargo Tower 118.3 122.5R **Gnd Con** 121.9
Fargo App Con 125.8 110.3T 365T
VFR ADV Ctc App Con 25 mi out on 125.8
ILS 110.3 I–FAR Apch Brg 351° **LOM:** 219/FA
Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld
Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVOR 111.2/GFK **FSS:** GRAND FORKS

JAMESTOWN (L) BVOR 114.5/JMS **FSS:** JAMESTOWN

MINOT (L) BVOR 117.1/MOT **FSS:** MINOT
Rng BMRLZ 209/MT

PEMBINA (H) BVORTAC 112.4/PMB **FSS:** GRAND FORKS

RED RIVER (H) VOR 116.7/RDR
RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN **FSS:** MINOT

OHIO

§AKRON MUNI *IFR* Adj SE AOE **FSS:** AKRON on Fld
1059 H53/7–25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2
REIL: Rnwys 7 and 25.
Remarks: Poles E. Obstn lgts inop SE hill apch rnwy 32. Rnwy 25 threshold displaced 511′ SW.
Tower 120.1 122.7R 110.9T **Gnd Con** 121.9
Radar Services:
Akron-Canton App Con 125.5 126.2 122.5R 109.5T
Akron-Canton Dep Con 118.6
ILS 110.9 1–AKR Apch Brg 246° **LOM:** 362/AKR
(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld
RBn MHW 362/AKR 246° 3.7 NM to fld.
Remarks: LOM is MHW.

§AKRON-CANTON *IFR* 10SE **FSS:** AKRON
1228 H56/1–19(4) (S–120, T–160, TT–250) BL4,6,11 S5 F5, JP1
DT2 **RVV:** Rnwy 1 **REIL:** Rnwy 23
Remarks: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.
Tower 126.2 122.5R 118.3 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.5 126.2 122.5R 109.5T
Dep Con 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400
Vsby 1 mi Min Alt 1628
ILS 109.5 1–CAK Apch Brg 006° **LOM:** 233/CA
Remarks: VOT: 115.4.

APPLETON (H) BVORTAC 116.7/APE **FSS:** COLUMBUS

ATHENS RBn MHW 206/UOA **FSS:** PARKERSBURG

ATTICA (L) BVORTAC 116.9/ATO **FSS:** MANSFIELD

BELLAIRE (L) BVORTAC 111.0/AIR **FSS:** WHEELING

BRECKSVILLE RBn MHW 326/BKI **FSS:** CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV **FSS:** AKRON

CHARDON (L) BVORTAC 109.8/CXR **FSS:** CLEVELAND

OHIO—*Continued*

COVINGTON, KY. (CINCINNATI, OHIO)
§GREATER CINCINNATI *IFR* 9SW Cincinnati **FSS:** CINCINNATI
890 H86/18–36(3) (S–179, T–283, TT–500) BL4,6,8A,9,11 S5
F5 **REIL:** Rnwy 27 **RVR** Rnwy 18–36
Remarks: Rnwy 4–22 clsd to acft over 48,000 lbs. Fee.
Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7
Clrnc Del 121.3
ATIS 112.9
Radar Services:
Cincinnati App Con 124.7 126.2 122.7R 119.7
Cincinnati Dep Con 121.0
ASR Rnwys 4, 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290.
Rnwys 22, 27 Ceil 700 Vsby 1 mi Min Alt 1590
ILS 109.9 I–CVG Apch Brg 360° **LOM:** 287/CV
111.5 I–SIC Apch Brg 180° **LOM:** 351/SI
Cincinnati (L) VORTAC 112.9/CVG 043° 2.3 NM to fld
VHF/DF contact tower or radar
Remarks: **VOT:** 108.4.

§CINCINNATI MUNI-LUNKEN FLD *IFR* 3SE **FSS:** CINCINNATI on Fld
488 H61/2R–20L(4) (S–55, T–75 TT–167) BL4,6,8A,9 S5 F4, JP4
U2
Remarks: Rnwy 2L threshold displaced 189′ NE. 4795′ avbl lndg rnwy 2L; tkoff rnwy 20R. 4984′ avbl lndg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 701′ SE. 3331′ avbl lndg rnwy 15; tkoff rnwy 33. 4032′ avbl tkoff rwy 15, lndg rnwy 33.
Lunken Tower 126.2 122.5R 118.7 **Gnd Con** 121.9
Radar Services:
Cincinnati App Con 119.7 126.2 124.7 122.7R
Cincinnati Dep Con 121.0
ILS 110.9 I-LUK Apch Brg 201° **LOM** 379/DME
Cincinnati Rng SABRAZ 335/LUK 227° 4.3 NM to fld
Remarks: Glide slope unusable beyond 11 NM below 2700′ MSL. LOM is Maderia RBn.

CLEVELAND
§BURKE LAKEFRONT Adj N **FSS:** CLEVELAND (DL)
584 H52/6–24(1) (S–31, T–37, TT–55) BL 6 S5 F4, JP1
U2 DT2
Remarks: Fee. Rgt tfc rnwy 24.
Lakefront Tower[3] 126.2 122.5R 120.9 **Gnd Con** 121.9
Radar Services
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Remarks: [1]270°–089° [2]090°–269° [3]Oper 1100–0300Z.

§CLEVELAND-HOPKINS INTL *IFR* 9SW AOE **FSS:** CLEVELAND on Fld
792 H90/5R–23L(5) (S–54, T–78, T–126)* BL4,6,8A,9,10,11 S5
F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27
REIL: Rnwy 36L.
Remarks: *(S-125, T–188, TT–338) avbl rnwy 9–27. Rnwy 23L apch restricted by fence. Rnwy 18L threshold displaced 493′S. 4522′ avbl lndg rnwy 18L; tkof rnwy 36R. 5015′ avbl lndg 36R, tkof rnwy 18L.
Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7
‡Clrnc Del 127.4
ATIS 112.0[5]
Radar Services: (BCN)
Cleveland App Con 124.0[1] 122.7R 118.5[2] 124.5[6] 110.7T
109.9T **Cleveland Dep Con** 121.0 124.5[6]
ASR. Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292.
Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.
ILS 109.9 I–CLE Apch Brg 055°
110.7 I–CEE[3] Apch Brg 278°
Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld
Cleveland RBn H–SAB 344●/CLE 070° 0.8 NM to fld

OHIO—*Continued*

VHF/DF contact tower
Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]Emergency Basis. [6]For Cuyahoga County Arpt.
VOT: 110.4

CLINTON (T) VOR 113.2/ILN FSS: DAYTON
RBn MHW 219/ILN

§COLUMBUS, PORT COLUMBUS INTL *IFR* 6E
FSS: COLUMBUS on Fld
816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28R **REIL:** Rnwys 10R, 28R.
Remarks: *(S–180, T–200, TT–400) avbl rnwy 10L–28R. Due non-vsby some areas of fld, ctc twr.
Tower 126.2 121.1 109.1T **Gnd Con** 121.9
Clrnc Del 121.3
Radar Services: (BCN)
App Con 119.0 126.2 125.4 122.5R 109.5T 3023.5R
Dep Con 120.5 126.2
ASR Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.
Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.
ILS[1] 109.1 1–CBP Apch Brg 096° **LOM:** 271/CB
109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM
RBn BH 391/CMH 070° 1.0 NM to fld
VHF/DF contact tower
Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM. ASR apchs unavbl til Aug. **VOT:** 111.0

CUYAHOGA RBn MHW 275/CUC FSS: CLEVELAND

DAYTON
§JAMES M COX-DAYTON MUNI *IFR* 9N FSS: DAYTON on Fld
1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: P-line SE. 1096′ TV twr 10NM S.
Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 125.2
Radar Services: (BCN)
Dayton App Con 118.0 122.7R 111.6T 110.3T
Dayton Dep Con 119.9
ILS[1] 110.3 1–DAY Apch Brg 056° **LOM:** 356/DA
Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.
Remarks: **VOT:** 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI FSS: FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY FSS:FINDLAY
RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO FSS: FINDLAY
Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL FSS: CLEVELAND

HAMILTON RBn MHW 260/HAO FSS: CINCINNATI

HUBBARD RBn MHW 408/HBD FSS: YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN FSS: YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA FSS: FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK FSS: COLUMBUS

LUNKEN RBn MHW 248/LKA FSS: CINCINNATI
Remarks: To be decmsnd June 30.

MADEIRA RBn MHW 379/MDE

§MANSFIELD MUNI *IFR* 3N FSS: MANSFIELD on Fld
1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32
Tower 119.3 122.5R 110.5T **Gnd Con** 121.9
App Con 124.7 122.5R 110.5T 108.8T
ILS 110.5 1–MFD Apch Brg 320° **LOM:** 374/MF
(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.
RBn MHW 374/MF 320° 4.0 NM to fld.
Remarks: LOM is MHW.

MARION RBn MHW 203/MNN FSS: MANSFIELD

MIDDLETOWN RBn MHW 239/MWO FSS: DAYTON

MONTGOMERY CO. (T) VORW 110./MGY FSS: DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW FSS: ZANESVILLE

PATTERSON (T) VOR 111.6/FFO FSS: DAYTON
RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD FSS: DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY FSS: CLEVELAND

§SPRINGFIELD MUNI *IFR* 5S FSS: DAYTON (LC FA 2–4562)
1049 H90/5–23(3) (S–190, T–200, TT–380) BL4 S5 F4, JP4
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245–2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM FSS: CLEVELAND

STRONGSVILLE (L) VOR 112.0/STG FSS: CLEVELAND

TIPP CITY RBn MHW 212/TPC FSS: DAYTON

TIVERTON (L) BVOR 116.5/TVT FSS: MANSFIELD

§TOLEDO EXPRESS *IFR* 9SW FSS: FINDLAY (LC 242–4171)
684 H87/7–25(2) (S–107, T–163, TT–287) BL5,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 7
Remarks: First 300′ N end and 1000′E end rnwy 17–35 clsd; usable length 4300′.
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084.
Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I–TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV FSS: TOLEDO

WILLOUGHBY
§LOST NATION *IFR* 2 N FSS: CLEVELAND (DL)
626 H50/9–27(2) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W. Rnwy 5 threshold displaced 200′ NE. 4800′ avbl lndg rnwy 5, tkof rnwy 23. 5000′ avbl lndg rnwy 23, tkof rnwy 5.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°–089° [2]090°–269° [3]Oper 0230–1430Z.

§YOUNGSTOWN MUNI *IFR* 10 N FSS: YOUNGSTOWN on Fld
1196 H75/14–32(3) (S–116, T–160, TT–270) BL4, 6, 8A, 9 S5 F4 TP1 U2 **RVV:** Rnwy 32
Remarks: Rnwy 9–27 rnwy lgts inop.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I–YNG Apch Brg 320° **LOM:** 338/YN
(L) BVOR–DME 109.0/YNG 183° 4.1 NM to fld.
VHF/DF contact tower

OHIO—*Continued*

ZANESVILLE (L) BVORTAC 111.4/ZZV FSS: ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS
RBn HW 410/LTS FSS: HOBART

ARDMORE (L) BVORTAC 116.7/ADM FSS: ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO FSS: TULSA

CLINTON (L) VOR 111.2/CSM FSS: HOBART
RBn MHW 320/CSM

DUNCAN (L) BVOR 111.0/DUC FSS: ARDMORE

GAGE (H) BVORTAC 115.6/GAG FSS: GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR FSS: HOBART

KINGFISHER (L) BVORTAC 114.2/IFI FSS: OKLAHOMA CITY

§LAWTON MUNI *IFR* 2 S FSS: WICHITA FALLS (LC EL5–1323)
1109 H54/17–35(1) (S–50, T–75, TT–135) BL4 S5 F5 JPI U–2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.7R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230–0430Z.

McALESTER (L) BVORTAC 112.0/MLC FSS: McALESTER

MUSKOGEE RBn MHW 306/MKO FSS: TULSA (DL)

OKLAHOMA CITY
§WILEY POST *IFR* 7 NW FSS: OKLAHOMA CITY (DL)
1303 H54/17–35(3) (S–15, T–20, TT–30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200–0400Z.

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§WILL ROGERS WORLD *IFR* 6W FSS: OKLAHOMA CITY on fld
1284 H98/17R–35L(4) (S–100, T–180, TT–350) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3–21 and txwy (C–1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr.
Tower 118.'3 126.2R 122.7R 109.9T **Gnd Con** 121.9
ATIS: 109.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I–OKC Apch Brg 351° **LOM:** 219/OK
Oklahoma City (H) BVORTAC 115.0/OKC 098° 8.1 NM to rnwy 12.
Oklahoma City RBn H–SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM FSS: TULSA

OWASSO RBn MHW 317/DW FSS: TULSA

OKLAHOMA—*Continued*

PAGE (L) BVOR 113.5/PGO CS/T: FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC FSS: PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO FSS: HOBART

STILLWATER (T) BVOR 108.4/SWO FSS: OKLAHOMA CITY (LC FR 2–4935)

TINKER AFB RBn HW 394/TIK FSS: OKLAHOMA CITY

TULAKES RBn MHW 406/TWO FSS: OKLAHOMA CITY

§TULSA INTL *IFR* 5NE FSS: TULSA on Fld
674 H100/17L–35R(5) (S–200, T–200, TT–400) BL4, 6, 8A, 9, 10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R
Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy.
Tower 118.7 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.2
Radar Services: (BCN)
App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7
Tfc Info Ctc App Con 25 mi out on 119.1
ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074
ILS 109.7 I–DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I–TUL[2] Apch Brg 355° **LOM:** 338/TU
(H) BVORTAC 114.4/TUL 260° 4.3 NM to rnwy 26
RBn H–SAB 245●/TUL 220° 0.9NM to fld.
Remarks: [1]500–1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL; unusable for automatic apchs. Both systems not operd simultaneously. **VOT:** 109.0

§TULSA RIVERSIDE *IFR* 5S FSS: TULSA
624 H40/18–36(1) BL4 S5 F4 U2
Remarks: Due non-vsby some areas of fld, ctc twr.
Tower:[1] 118.1 122.7R
Remarks: [1]Oper 1200–0400Z.

WOODRING (T) BVOR 109.0/ODG FSS: PONCA CITY

OREGON

ASTORIA (L) BVOR 114.0/AST FSS: HOQUIAM

BAKER (L) BVORTAC 115.3/BKE FSS: BAKER

CORVALLIS (L) BVOR 108.4/CVO FSS: EUGENE

EUGENE
§MAHLON-SWEET FLD *IFR* 7 NW FSS: EUGENE on Fld
365 H55/16–34(2) (S–80, T–120, T–190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16
Eugene Tower 118.9 122.5R **Gnd Con** 121.9
Eugene App Con 118.9 122.5R 112.9T 109.5T
ILS 109.5 I–EUG Apch Brg 159° **LOM:** 227/EU
Eugene (L) BVORTAC 112.9/EUG on fld

JOHN DAY (H) BVOR 115.6/JDA FSS: BAKER

KLAMATH FALLS
§KINGSLEY FLD *IFR* 4 SE FSS: KLAMATH FALLS on Fld
4092 H103/14–32(3) (S–100, T–200, TT–380) BL4, 6,8A′, 9′ S5 F4, JP1 U2 DT2
Remarks: [1]Below FAA standards. 1000′ overrun N end, 750′ overrun S end rnwy 14–32.
Kingsley Tower 118.5 122.5R 269T **Gnd Con** 121.9
Radar Services: (BCN)
Klamath Falls App Con 126.2 122.5R
Klamath Falls Dep Con 124.1
Tfc Info Ctc App Con
ILS[1] 109.5 I–LMT Apch Brg 319° BC unusable **LMM:**269/MT

OREGON—*Continued*

Klamath Falls (L) BVORTAC 115.9/LMT on fld
Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.
Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV FSS CS/T: KLAMATH FALLS

§MEDFORD MUNI ***IFR*** 2 N FSS: MEDFORD on Fld
1330 H54/14-32(2) (S-80, T-120, TT-180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVV:** Rnwy 14
Remarks: Ngt fueling delay and surcharge 1800–0730 lcl time.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 119.8 110.3T 113.6T
ILS[1] 110.3 I-MFR Apch Brg 141° **LOM:** 394/MF
(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.
RBn SBH 263/MFR 161° 2.1NM to fld.
VHF/DF contact tower or FSS.
Remarks: [1]ILS not certified for automatic apchs. [2]VHF/DF coverage 40 NM at MEA excp 360–015°, 9000′; 015–030°, 10,000′; 030–057°, 11,000′; 120–210°, 13,500′; 315–350°, 8000′; 350–360°, 8500′; 057–075°, 30 NM at 11,000′; 075–120°, 30 NM at 13,500′; 210–225°, 30 NM at 12,000′; 225–250°, 30 NM at 10,500′.

NEWBERG (H) BVORTAC 117.4/UBG FSS: PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP FSS: EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH FSS: NORTH BEND
RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO FSS: BOISE

§PENDLETON MUNI ***IFR*** 2 NW FSS: PENDLETON on Fld
1493 H63/7L-25R(4) (S-70, T-100, TT-170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25
Remarks: Rnwy 25L threshold displaced 821′W. 2029′ avbl lndg rnwy 25L, 7R-25L dalgt operns only lgt planes.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 114.7T 341T
ILS 110.3 I-PDT Apch Brg 250° **LOM:** 236/PD
(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.
RBn SABH 341●/PDT 259° 1.7 NM to fld

§PORTLAND INTL ***IFR***..4 NE FSS: PORTLAND on Fld
26 H88/10R-28L(3) (S-100, T-200, TT-400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R
Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.0
Radar Services: (BCN)
App Con 118.1[2] 126.2 122.7R 119.8[3] 109.9T
Dep Con 124.9
Tfc Info Ctc App Con
PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226
ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726
Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826
ILS 109.9 I-PDX Apch Brg 098° BC restricted **LMM:** 201/DX
111.3 I-IAP Apch Brg 278° **LOM:** 383/IA
(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.
Rng SABH 332●/PDX 155° 2.9 NM to fld.
VHF/DF contact tower.
Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070–289°. [3]290–069°. **VOT:** 111.0.

§PORTLAND-TROUTDALE ***IFR*** Adj NW FSS: PORTLAND (DL)
36 H46/7-25(1) (Max 20) BL 4 S5 F4 U2 DT2
RVV: Rnwy 7
Remarks: Rnwy 7 threshold displaced 400′ E. 4241′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 500′W. 4141′ avbl lndg rnwy 25.

OREGON—*Continued*

Troutdale Tower[3] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Portland App Con 118.1[1] 119.8[2]
Portland Dep Con 124.9
Remarks: [1]070–289° [2]290–069°. [3]Oper 1500–0700Z.

REDMOND (L) BVORTAC 117.6/RDM FSS: REDMOND
RBn H-SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO FSS: BAKER

ROSEBURG (L) BVOR 108.2/RBG FSS: EUGENE CS/T

§SALEM-MCNARY FLD ***IFR*** 1 SE FSS: PORTLAND (DL)
207 H58/13-31(2) (S-50, T-75, TT-110) BL4, 6 S5 F4 U1 DT2 **RVV:** Rnwy 31
Remarks: Rnwy 16–34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins.
ILS[1] 110.3 I-SLE Apch Brg 309° **LOM:** 266/SL
Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY FSS: PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS FSS: THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON ***IFR*** 3 NE FSS: ALLENTOWN on Fld
388 H62/6-24(4) (S-55, T-76, TT-125) BL4,6,8A,9 S5 F4 JP1 U2 DT2 **RVR:** Rnwy 6
Remarks: 5210′ avbl lndg rnwy 24. Rnwy 14–32 open for ngt opern 2415′ btn threshold lgts plus 175′ of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9
Clrnc Del 121.9
Allentown App Con 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061° **LOM:** 400/AB
Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld
Allentown Rng SBMAZ 321/AE 195° 2.5 NM to fld.

ALTOONA (T) BVOR 108.8/AOO FSS: ALTOONA

AMBLER RBn MHW 275/ING FSS: PHILADELPHIA
Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD FSS: BRADFORD
RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP FSS: PITTSBURGH

CARROLLTOWN (L) BVORTAC 110.6/CLN FSS: ALTOONA

CLARION (L) BVOR 112.9/CIP FSS: DU BOIS

COATESVILLE RBn MHW 262/CVE FSS: PHILADELPHIA

CREEK RBn MHW 219/CRK FSS: PITTSBURGH

CRYSTAL LAKE RBn MHW 392/CYE FSS: WILKES-BARRE

DU BOIS RBn BH 356/DUJ FSS: DU BOIS

EAST TEXAS (L) BVORTAC 110.2/ETX FSS: DU BOIS

ELLWOOD CITY (H) BVORTAC 115.8/EWC FSS: PITTSBURGH

ERIE
§PORT ERIE ***IFR*** 5 SW FSS: ERIE on Fld
732 H50/6-24(3) (S-75, T-115, TT-) BL4, 6, 8A, 9, 11 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Erie Tower: 118.1 122.5R 110.3T 118.4 **Erie Gnd Con** 121.9
Erie App Con 119.0 122.5R 110.3T
ILS 110.3 I-ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

FRANKLIN (L) BVOR 109.6/FKL FSS: YOUNGSTOWN
RBn MHW 233/FKL

PENNSYLVANIA—*Continued*

§HARRISBURG-YORK STATE ***IFR*** 3 S **FSS:** HARRISBURG on Fld
347 H50/8–26(3) (S–65, T–105, TT–185) BL4, 6, 8A, 9 S5
F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26.
Harrisburg Tower 119.5 126.2 122.5R 109.1T
Gnd Con 121.9
Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R , 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447.
Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I–HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC, 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMRAZ 338/HR 118° 0.9 NM to fld.

HAZELTON (T) BVOR 109.4/HZL **FSS:** WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200–2400Z by City.

IMPERIAL (L) BVORTAC 109.4/IRL **FSS:** PITTSBURGH

INDIANA RBn MHW 242/INP **FSS:** ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/HD **FSS:** MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST **FSS:** ALTOONA

KEATING (L) BVOR 114.7/ETG **FSS:** PHILIPSBURG

§LANCASTER ***IFR*** 5N **FSS:** HARRISBURG (LC 392–0881)
403 H50/8–26(2) (S–77, T–107, TT–) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
Rbn MHW 326/LRP
Remarks: [1]Oper 1200–0400Z.

LATROBE (T) VORW 108.2/LBE **FSS:** PITTSBURGH

MCKEESPORT RBn MHW 287/MKP **FSS:** PITTSBURGH

MILTON (L) BVORTAC 109.2/MIP **FSS:** WILLIAMSPORT

PHILADELPHIA
§ NORTH PHILADEPHIA ***IFR*** 10 NE **FSS:** PHILADELPHIA on Fld
120 H50/6–24(2) (S–120, T–200, TT–) BL4, S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
VHF/DF etc FSS
Remarks: [1]270–089° [2]090–269°

§PHILADELPHIA INTL ***IFR*** 5 SW **FSS:** PHILADELPHIA (DL)
14 H95/9–27 (3) (S–120, T–200, TT–400) BL4, 6, 8A, 9 S5
F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: Fence E, NE. Constrn vcnty rnwy 27.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
PAR [3]Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 214
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
ILS 109.3 I–PHL Apch Brg 085°. **LOM:** 237/PH
VHF/DF contact tower.
Remarks: [1]270–089° [2]090–269° [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB **FSS:** PHILIPSBURG
RBn MHW 236/PSB

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PITTSBURGH
§ALLEGHENY COUNTY ***IFR*** 4 S **FSS:** PITTSBURGH on Fld
1252 H55/9–27(3) (S–70, T–120, TT–210) BL6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30
Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7
Radar Services: (BCN)
Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]
Pittsburgh Dep Con 125.9
ILS 109.1 I–AGC Apch Brg 275° BC unusable
(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld
RBn H–SAB 254●/AGC 082° 2.0 NM to fld
Remarks: [1]270–089° [2]090–269°

§GREATER PITTSBURGH ***IFR*** 12 NW **FSS:** PITTSBURGH (DL)
1203 H105/10L–28R(4) (S–120, T–200, TT–400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32
Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. US Customs lndg rts arpt.
Pittsburgh Tower 119.1 126.2 122.7R 110.3T
‡Clrnc Del 121.3 **Gnd Con** 121.9
Radar Services: (BCN)
Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]
Pittsburgh Dep Con 125.9
Tfc Info Ctc Radar App Con on 124.15 when approaching from NW & NE, and on 118.7 from SE & SW.
PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1368
ASR Rnwys 5,14,23.28R,32 Ceil 500 Vsby 1 mi Min Alt 1703
Rnwy 10L, 10R, 28L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I–GPB Apch Brg 277° BC unusable **LOM:** 323/GP
111.7 I–LXB Apch Brg 097° BC unusable.
VHF/DF contact tower.
Remarks: [1]270–089° [2]090–269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POOTSTOWN (L) BVORTAC 116.5/PTW **FSS:** PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING
§GENERAL SPAATZ FIELD ***IFR*** 2NW **FSS:** HARRISBURG (LC 376–3045)
343 H51/18–36(3) (S–30, T–45, TT–175) BL4, 6, 7, 12 S5
F4, JP4 U2 DT2
Remarks: Rgt tfc rnwys 5, 13, and 36.
Reading Tower 119.9 126.2 122.5R 109.5T
Gnd Con 121.9
Reading App Con 119.9 126.2 122.5R 109.5T
ILS 109.5 I–RDG Apch Brg 001° BC unusable **LOM:** 269/RD
VHF/DF available, contact tower.

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

TOBYHANNA RBn MHW 410/TSD **FSS:** WILKES BARRE

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** PHILADELPHIA

PENNSYLVANIA—*Continued*

§WILKES-BARRE-SCRANTON ***IFR*** 9 NE **FSS:** WILKES-BARRE on Fld
956 H52/4-22 (3) (S-100, T-140, TT-) BL4-6,8A,9 F5, JP4 DT2 **RVV:** Rnwy 4
Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.
FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.
Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Wilkes-Barre App Con 124.5 122.5R 109.9T
Wilkes-Barre Dep Con 126.3
ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956
Rnwy 10,22 Ceil 900 Vsby 1 mi Min Alt 1856
ILS[1] 109.9 I-AVP Apch Brg 043° BC unusable **LOM:** 257/AV
Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

§WILLIAMSPORT-LYCOMING CO ***IFR*** 4 E **FSS:** WILLIAMSPORT on Fld
528 H50/9-27 (3) (S-40, T-60, TT-) BL4,6,8A,9 S5 F4, JP1 DT2
Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 12,500 lbs and under. Rnwy 12-30 (Max-200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW.
Williamsport Tower 119.1 122.5R
Williampsort Gnd Con 121.9
Williampsort App Con 124.9 122.5R
ILS 110.1 I-IPT Apch Brg 266° BC unusable **LMM:** 281/PT
Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO **FSS:** BOSTON

PROVIDENCE
§GREEN ***IFR*** 6 S **FSS:** PROVIDENCE on Fld
56 H54/5R-23L(4) (S-94.5, T-143, TT) BL5,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 5R
Remarks: Fee. No mult engine lndgs 5L, no tkofs 23R.
Providence Tower 120.7 122.5R 109.3T 368T
Gnd Con 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.3 I-PVD Apch Brg 046° BC unusable **LOM:** 368/PV
Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

ANDERSON (L) BVORTAC 108.6/AND **FSS:** ANDERSON

§CHARLESTON AFB/MUNI ***IFR*** 9 NW **FSS:** CHARLESTON on Fld
45 H90/15-33 (2) (S-100, T-140, TT-250) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15
Tower 121.0 122.5 126.2 113.5T 109.7T **Gnd Con** 121.9
Clrnc Del 121.7
Radar Services:
App Con 119.3 118.5 113.5T 109.7T
Dep Con 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.
PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445
Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245
Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445

SOUTH CAROLINA—*Continued*

ILS[1] 109.7 I-CHS Apch Brg 149° BC unusable **LOM:** 329/CH
(H) BVORTAC 113.5/CHS on fld.
RBn H-SAB 329●/CH
Remarks: LOM is H-SAB. **VOT:** 111.0.

CHESTERFIELD (L) BVOR 108.2/CTF **FSS:** FLORENCE

COLUMBIA
§COLUMBIA METROPOLITAN ***IFR*** 5SW **FSS:** FLORENCE (LC 254-9791)
236 H75/10-28(2) (S-45, T-130, TT-270) BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10
Remarks: Rnwy 5-23 (S-45, T-170, TT-320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.
Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
App Con 118.2 122.5R 114.7T 110.3T 227T
ILS 110.3 I-CAE Apch Brg 107° BC unusable **LOM:** 356/CA
(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.

§OWENS FIELD 1SE **FSS:** FLORENCE (LC 254-9791)
203 H36/15-33(2) (S-30) L4 S5 F4 U1
Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.
Tower[1] 126.2 122.5R
Columbia App Con 118.2 122.5R 110.3T 227T
Remarks: [1]AAS—Oper weekdays 1230-1630Z and 1745-2115Z. Sats 1230-1600Z.

CONWAY RBn HW 269/MTL **FSS:** FLORENCE

FLORENCE (H) BVORTAC 115.2/FLO **FSS:** FLORENCE

FORT MILL (L) BVOR 112.4/FML **FSS:** HICKORY

GREENVILLE
§GREENVILLE MUNI DOWNTOWN ***IFR*** 2 E **FSS:** GREER
1047 H54/18-36 (3) (S-21, T-30, TT-60) BL4,6 S5 F4, JP1 U2
Remarks: Rgt tfc rnwys 18, 27, 23.
Tower 119.9 126.2 122.5R 109.7T 391T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.0 124.3 122.5R 119.4 109.7T
Dep Con 118.8
Tfc Info: [2]Ctc App Con 25 NM out
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.
ILS[1] 109.7 I-GRL Apch Brg 002° BC unusable **LOM:** 272/GR
Remarks: [1]Glide slope unusable below 1347′ MSL. [2]Oper. 1200-0400Z.

GREENWOOD (L) BVORTAC 114.9/GRD **FSS:** ANDERSON

GREER
§GREENVILLE-SPARTANSBURG ***IFR*** 3 S **FSS:** GREER on Fld
972 H76/3-21 (2) (S-120) BL6,8A,9, 14,15 S5 F5, JP5 U2 **RVV:** Rnwy 3
Remarks: Fee commercial only.
Greer Tower 120.1 126.2 122.7R 115.7T 109.3T 209T
Gnd Con 121.8
Radar Services: (BCN)
Greenville App Con 118.0 126.2 124.3 122.5R 119.4 109.7T
Greenville Dep Con 118.8
Tfc Info[1] Ctc App Con 25 NM out.
ILS 109.3 I-GSP Apch Brg 033° **LOM:** 287/GS
VHF/DF ctc FSS.
Remarks: [1]Oper 1200-0400Z.

MYRTLE BEACH (L) BVOR 116.0/MYR **FSS:** FLORENCE

SHAW AFB (L)VOR 109.2/SSC **FSS:** FLORENCE
RBn HW 375/SW

SOUTH CAROLINA—*Continued*

§SPARTANSBURG DOWNTOWN MEMORIAL *IFR* 2SW
FSS: GREER (LC 585–5470)
816 H52/4–22(3) (S–56) BL4, 6 S5 F5, JP1, JP5
Tower[1] 118.3 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Greenville App Con 124.3
Greenville Dep Con 118.8
(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H–SAB 248●/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100–0300Z.

VANCE (L) BVOR 110.4/VAN **FSS:** CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR **FSS:** ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR **FSS:** PIERRE

ELLSWORTH (L) BVOR 110.8/RCA **FSS:** RAPID CITY

HURON
§HOWES MUNI *IFR* 1NW **FSS:** HURON on Fld
1287 H51/12–30(2) (S–50, T–75, TT–132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17–35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 1–HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM **FSS:** DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE **FSS:** HURON
Remarks: VFR use only.

PHILIP (L) BVOR 108.4/PHP **FSS:** PIERRE

PIERRE (L) BVORTAC 112.5/PIR **FSS:** PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

§RAPID CITY MUNI *IFR* 8SE **FSS:** RAPID CITY on fld
3181 H62/14–32(2) (S–63, T–85, TT–140) BL6,11 S5 F4 U2 JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld.
RBn[2] H–SAB 254/RAP 102° 1.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Oper 1300–0500Z. [2]To be SABH June 23.

SIOUX FALLS
§JOE FOSS FIELD *IFR* 2NW **FSS:** HURON (DL)
1428 H90/3–21(3) (S–85, T–120, TT–220) BL4,6,8A,9,11 S5 F5 JP1 U2 **RVV:** Rnwys 3, 21 **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9–27 clsd acft over 30,000 lbs. First 300′ rnwy 27 unusable tkof. Usable length 5392′.
Foss Tower 118.3 122.5R **Gnd Con** 121.9
Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 1–FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

WATERTOWN (L) BVORTAC 116.6/ATY **FSS:** WATERTOWN

SOUTH DAKOTA—*Continued*

WINNER (L) BVOR 112.8/ISD **FSS:** PIERRE

YANKTON (L) BVOR 111.4/YKN **FSS:** HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW **FSS:** TRI-CITY on Fld
1519 H66/4–22(2) (S–95, T–125, TT–215) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 119.5 126.2
ILS[1] 109.9 I–TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 500 Vsby ¾ mi Min Alt 2019
Remarks: [1]Glide slope unusable below 2019′ MSL. Lclzr unusable above 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME **FSS:** MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E **FSS:** CROSSVILLE (LC 267–5343)
682 H62/2–20(2) (S–90, T–120, TT–) BL4,6,8A,9,10 S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanoga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I–CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn HW 341/CQN 196° 7.7 NM to fld.
Remarks. [1]016–196° [2]197–015° Glide slope unusable below 882′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV **FSS:** NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV **FSS:** CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR **FSS:** DYERSBURG

GRAHAM (L) BVOR 111.6/GHM **FSS:** NASHVILLE

HARDEE RBn MHW 281/MKL
Remarks: Privately owned.

HIGHWAY (L) BVOR 108.4/HIY **FSS:** CROSSVILLE

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY CS/T

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE
§McGHEE-TYSON *IFR* 11S **FSS:** KNOXVILLE on Fld
989 H90/4L–22R(3) (S–84, T–90, TT–200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services:
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.

TENNESSEE—*Continued*

ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I–TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H–SAB[1] 281/TYS 200° 2.6 NM to fld
VHF/DF contact tower.
Remarks: [1]AB 1000–0300Z. **VOT:** 112.0.

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§MEMPHIS METROPOLITAN *IFR* 3S **FSS:** MEMPHIS on Fld
331 H89/9–27(4) (S–105, T–150, TT–240) BL4,6,8A,9,10,15
S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwys 3-21 & 14–32 (S–100). Rnwy 17–35. (S–110, T–150, TT–270). 3816′ avbl lndg & tkoff both directions rnwy 14–32. 1088′ (1340′ MSL) twr 9 NM NNE. 1078′ (1333′ MSL) twr 10 NM NE. 1077′ (1349′ MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 126.2 122.5R 118.3 115.5T 110.5T 109.5T
Gnd Con 121.9
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I–MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I–TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn SBH 371/TS 354° 4.7 NM to fld
VHF/DF available, contact FSS
Remarks: [1]077–271.° [2]272–076° [3]Glide slope unusable below 400′ MSL. [4]LOM is Brooks MHW. [5]LOM is SBH. [6]Glide slope unusable below 350′ MSL. **VOT:** 111.0

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§NASHVILLE METROPOLITAN *IFR* 5SE **FSS:** NASHVILLE on Fld
597 H80/13–31(3) (S–76, T–130, TT–220) BL4,6,8A,9 S5
F5, JP1 U2 **RVV:** Rnwy 2L
Remarks: Rnwy 2R–20L–240′ overrun N end; 1185′ S end; rnwy 2L–20R–1065′ overrun S end; rnwy 13–31–1000′ overrun SE and NW end. 1368.5′ (2049′ MSL) twr 8.5 NM W. 1179′ (2049′ MSL) 9 NM NNW.
Berry Tower 126.2 122.5R 119.1 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I–BNA Apch Brg 016° **LOM:**304/BN
Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.
Nashville RBn H–SAB[2] 304●/BN 016° 5.0 NM to rnwy 2L.
VHF/DF available, contact tower
Remarks: [1]Main 1200′ til 2 mi from end of rnwy on final to rnwy 20R. LOM is H–SAB. [2]AB 0500–2200. **VOT:** 112.0.

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 298/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT

TEXAS

§ABILENE MUNI *IFR* 3SE **FSS:** ABILENE on Fld
1778 H60/17–35(2) (S–70, T–89, TT–145) BL4,6,8A,9 S5
F4 JP1 U2 **RVV:** Rnwy 35
Remarks: NW–SE txwy used by lgt acft for lndg during high

TEXAS—*Continued*

cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmit 122.5 and receive 124.1 mc 20 mi out.
Tower[1] 120.1 122.7R 110.3T 126.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0
Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
ILS 110.3 I–ABI Apch Brg 350° **LOM:** 353/AB
(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.
Remarks: [1]Opers 0600–2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

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§AMARILLO AFB/MUNI *IFR* 8E **FSS:** AMARILLO on Fld
3605 H135/3–21(2) (S–65, T–330, TT–470) BL6,8A,9,10
S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21
Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100′ MSL. Overhead tfc ptn 5400′ MSL. Rnwy 13–31 lmtd to 33,000 lbs GWT.
Tower 126.2 122.5R 118.3 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T
Dep Con 119.5
Tfc Info Ctc App Con 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005.
Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105
ILS[1] 110.3 I–AMA Apch Brg 035° **LOM:** 338/AM
(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.
RBn SABH 251●/AMA 109° 1.3 NM to fld.
Remarks: [1]Glide slope unusable below 3905′ MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN
§MUELLER MUNI *IFR* 2NE **FSS:** AUSTIN on Fld
632 H73/12R–30L(5) (S–74, T–100, TT–159) BL4,6,8A,9,10 S5
F5, JP5 U2 **VASI:** Rnwy 12R **RVV:** Rnwy 30L
Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844′ SE. 6400′ avbl lndg rnwy 12R. Rnwy 16R threshold displaced 589′ S. 4406′ avbl lndg rnwy 16R. 1137′ (2049′ MSL) twr 5 NM W. 1199′ (2049′ MSL) twr 7 NM W.
Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Austin App Con 124.9 118.8 122.7R 112.5T
Austin Dep Con 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
Tfc Info Contact App Con 25 mi out on 118.8.
ILS 109.5 I–AUS Apch Brg 305° **LOM:** 353/AU
Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.
Austin RBn MHW 353/AU 305° 4.8 NM to fld.
Remarks: LOM is MHW.

BEAUMONT-PORT ARTHUR
§JEFFERSON CO *IFR* 9SE **FSS:** BEAUMONT on Fld
16 H57/11–29(3) (S–65, T–91, TT–170) BL4,6,8A,9,11 S5
F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16
Remarks: (S–83, T–118, TT–212) avbl rnwy 16–34.
Tower 119.5 122.5R **Gnd Con** 121.9
Beaumont App Con 121.3 122.5R 114.9T
ILS 109.5 I–BPT Apch Brg 114° **LOM:** [2]257/BP
Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.
RBn[1] **MHW** 368/BEM
Remarks: [1]VFR use only. [2]LOM unusable beyond 8 NM.

BEEVILLE **FSS:** ALICE
§CHASE (NAAS) FLD 45E
186 H80/13R–31L(3) BL4,6,7

TEXAS—*Continued*

Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.
Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO **FSS:** FORT WORTH

BERGSTROM (L) VORW 109.8/BSM **FSS:** AUSTIN
RBn HW 293/BSM

BIGGS RBn HW 400/BIF **FSS:** EL PASO

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326 /BGS

BORGER (L) BVOR 108.6/BGD **FSS:** AMARILLO

BRAZOS SANTIAGO RBn HW 314/PIL **CS/T:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE

§RIO GRANDE VALLEY INTL ***IFR*** 4E AOE **FSS:** BROWSNVILLE on Fld 22 H74/13R–31L(5) (S–26, T–50, TT–87) BL4,6,7 S5 F5, JP1 JP4 U2

Remarks: Brush apch 31L. Trees apch rnwys 31R, 35R. Rnwy 17R–35L: (S–35, T–56, TT–108). Rnwys 8–26 and 4–22 do not meet air carrier standards for day/ngt operns. No lgts rnwys 13R–31L and 8–26.

Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I–BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 114.7/ARO **FSS:** AMARILLO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR **FSS:** ALICE

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION

§EASTERWOOD FIELD ***IFR*** 2SW **FSS:** COLLEGE STATION on Fld 319 H51/10–28(3) (S–30, T–40, TT–) BL4 S3 F4 JP1

Remarks: Services offered dalgt hrs only. Due non-vsby some areas of fld, ctc twr.

Tower^1 118.5 126.2 122.5R **Gnd Con** 121.9
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: ^{1}Oper 1200–0400Z.

CONNALLY RBn MHW 400/CNW **FSS:** WACO

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§CORPUS CHRISTI INTL ***IFR*** 5W **FSS:** ALICE (LC TU 4–5712) 43 H56/13–31(2) (S–96, T–108, TT–152) BL4,6,8A,9 S5 F4, TP–1 JP4 U2 **RVV:** Rnwy 13

Remarks: Amber flashing lgt for rgt ptn. US Customs–lndg rts arpt 0800–1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.

Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I–CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS

§ADDISON ***IFR*** 9N **FSS:** DALLAS (LC FL2–8491) 637 H52/15–33(2) BL4 S5 F5. JP1 U2

Remarks: P-line NE.

Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8^1 125.2 119.8^2 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: ^{1}127°–307° ^{2}308°–126°.

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§DALLAS LOVE FIELD ***IFR*** 5NW **FSS:** DALLAS on Fld 485 H88/13R–31L(3) (S–100, T–150, TT–350) BL4,6,8A,9,-10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R **RVR:** Rnwy 13L

Remarks: Rnwy 13R–31L limited to tkofs only. US Customs lndg rgts arpt 0030–1430 Mon-Fri, 0030–1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.

Tower 126.2 122.5R 118.7 **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8^2 125.2 125.8^3 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR ^{5}Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31^1, 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS^4 110.3 I–DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF contact tower.

Remarks: ^{1}Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. ^{3}127°–307° ^{2}308°–126° ^{4}Glide slope unusable below 677′ MSL due roughness. BC unusable for automatic apchs. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. ^{5}Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

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§RED BIRD ***IFR*** 6SW **FSS:** DALLAS (LC FL2–8491) 660 H44/13–31(2) BL4 S5 F4, JP1 U2

Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.

Tower^3 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8^1 125.2 122.5R 119.8^2 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: ^{1}127°–307° ^{2}308°–126° ^{3}Oper 1200–0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

DYESS (L) VOR 109.2/DYS **FSS:** ABILENE
RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

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§EL PASO INTL ***IFR*** 4NE (AOE) **FSS:** EL PASO on Fld 3956 H120/4–22(3) (S–95, T–156, TT–280) BL4,6,8A,9,11 S5 F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26

Remarks: Rnwy 4 threshold displaced 1000′ NE. 11,000′ avbl lndg rnwy 4. Rnwy 17 threshold displaced 395′ S. 6606′ avbl lndg rnwy 17.

Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
Dep Con 119.1
ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356

TEXAS—*Continued*

ILS[1] 109.5 I–ELP Apch Brg 218° **LOM:** 266/EL

(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.

RBn H–SAB 242●/ELP 258° 3.2 NM to fld.

Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH

§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE **FSS:** FORT WORTH (DL)

568 H90/17–35(2) (S–83, T–120, TT–210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13

Remarks:1074′ (1679′ MSL) twr 10.5 NM WSW.

Southwest Tower 120.5 126.2 122.7R **Gnd Con** 121.8

Radar Services:

Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T

Fort Worth Dep Con 123.9 122.7R

Tfc Info Ctc App Con 25 NM out on 118.1

ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968

ILS 109.5 I–GSW Apch Brg 129° **LOM:** 219/GS

Greater Southwest (L) BVORTAC[1] 110.6/GSW at fld.

VHF/DF [2]contact tower.

Remarks: VOT: 111.8. [1]Wea bcsts discontd 2400–0600 excp forecast. [2]VHF/DF inop til Oct 27.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld

692 H52/17–35(3) (S–60, T–80, TT–) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17

Remarks: P-line SE.

Tower[1] 126.2 122.7R 118.3 **Gnd Con** 121.9

Radar Services:

Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T

Fort Worth Dep Con 123.9 122.7R

ILS 109.9 I–FTW Apch Brg 174° **LOM:** 365/FT

Fort Worth RBn H–SAB 365●/FT 174° 3.5 NM to rnwy 17

Remarks: [1]Oper 1200–0400Z. LOM is H–SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON

RBn H H–SAB 206●/GLS

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK **FSS:** COLLEGE STATION

GREENVILLE

§MAJORS FIELD *IFR* **4SE** **FSS:** DALLAS

544 H80/17–35(2) S–26, T–50, TT–) BL4 S5 F4

Remarks: Rgt tfc rnwy 17.

Tower[1] 121.3 122.5R **Gnd Con** 121.7

Remarks: [1]Oper 1330–2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE

HOOD (L) VORW 111.8/HLR **FSS:** COLLEGE STATION

RBn MHW 347/HLR

HOUSTON

§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld

48 H76/3–21(2) (S–75, T–107, TT–185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12

Remarks: US Customs lndg rgts arpt 0800–1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12–30, 3–21 not usable for lndgs or taxg acft; usable rnway pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.

Tower 118.7 126.2 122.5R **Gnd Con** 121.9

‡Clrnc Del: 127.6

ATIS 109.9

TEXAS—*Continued*

Radar Services:

App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T

Dep Con 120.2 126.2

Tfc Info Ctc App Con 25 mi out on 119.1 or 118.1

ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448 Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548

ILS 109.9 1–HOU Apch Brg 036° **LOM:** 251/HO

Houston (H) BVORTAC 115.9/HOU on fld.

VHF/DF available, contact tower.

Remarks: [1]218°–008° [2]009°–217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/IDU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

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§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN

1515 H63/17–35(1) L4,11 F4 U1 **REIL:** Rnwy 35

Tower[1] 126.2

Radar Services:

Austin App Con 124.9 118.8 122.7R

Austin Dep Con 120.8

RBn MH 393/JCY 346° 2 NM to fld.

Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (H) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

KELLY (L) VORW 113.8/SKF **FSS:** SAN ANTONIO

RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI **FSS:** ALICE

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§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2–3612)

524 H49/15–33(1) (S–25, T–37, TT–) BL4 S3 F4 U1

Remarks: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T.

VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.

(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.

LAUGHLIN (L) VOR 114.4/DLF **FSF:** JUNCTION

RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FS**[illegible]**AN ANTONIO**

LEONA (L) BVORTAC 110.8/LOA **FSS:** [illegible] EGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

LONGVIEW

§GREGG COUNTY MUNI *IFR* 6SE **FSS:** GREGG COUNTY on Fld

365 H61/17–35(3) (S–75, T–100, TT–) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13

Tower 118.9 122.5R **Gnd Con** 121.9

ILS 109.5 I–GGG Apch Brg 127° **LOM:** 410/GG

Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

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§LUBBOCK MUNI *IFR* 4NE **FSS:** LUBBOCK on Fld

3269 H85/17R–35L(5) (S–90, T–150, TT–250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R

Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl lndg rnwy 35L, 8500′ avbl lndg rnwy 17R. Clsd to tactical mil jet acft.

Tower 119.9 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.1 125.8 126.2 122.5R 110.8T

Dep Con 119.3

ASR [1]Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Alt 3669

TEXAS—*Continued*

ILS 109.5 I-LBB Apch Brg 169° **LOM:** 219/LB
(L)BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12
Remarks: [1]Oper 1200–0400Z.

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT **FSS:** DALLAS

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI **FSS:** PALACIOS

McALLEN
§MILLER INTL ***IFR*** 2S (AOE) **FSS:** McALLEN on Fld
106 H49/13–31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13
Remarks: P-line N, S. TV ant NE. Rnwy 31 threshold displaced 542′ NE.
McAllen Tower 118.9 122.5R **Gnd Con** 121.9
Brownsville App Con: 119.5 126.2 118.1
McAllen (L) BVOR 109.8/MFE on fld
Remarks: Oper 1200–0400Z.

§MIDLAND AIR TERMINAL ***IFR*** 8SW **FSS:** MIDLAND on Fld
2870 H83/10–28(4) (S–100, T–128, TT–280) BL4,6,8A,9
S5 F5,JP2 U2 **RVV:** Rnwy 10
Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl lndg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
App Con 121.1 122.5R 114.8T 110.3T
ILS 110.3 I-MAF Apch Brg 103° **LOM:** 344/MA
VHF/DF contact FSS.
(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.

MINERAL WELLS (H) BVORTAC 117.7/MWL **FSS:** MINERAL WELLS
RBn BMH 284/MWL

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CORPUS (L) VOR W 109.6/NGP **FSS:** PALACIOS
RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PLAINVIEW
§HALE COUNTY ***IFR*** 1S **FSS:** AMARILLO (LC CA 3-2148)
3372 H52/4–22(2) (S–30, T–40, TT) BL4 S5 F4 U2
Remarks: Hangar NE.
Plainview Tower[1] 118.9 122.5R **Gnd Con** 121.7
Lubbock App Con 118.1 126.2 112.9T
Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.
Remarks: [1]Oper 1200–0400Z.

QUITMAN (L) BVOR 114.0/UIM **FSS:** TYLER

RANDOLPH RBn HW 359/RND **FSS:** SAN ANTONIO

ROCKSPRINGS (L) BVOR 111.2/RSG **FSS:** SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI **FSS:** BEAUMONT CS/T

SALT FLAT (L) BVORTAC 113.0/SFL **FSS:** EL PASO

SAN ANGELO
§MATHIS FIELD ***IFR*** 7SW **FSS:** SAN ANGELO on Fld
1915 H59/3–21(3) (S–35, T–56, TT–) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3
Remarks: Trees E. Rnwy 9–27 clsd to acft over 25,000 lbs GWT.
Tower 118.3 122.5R **Gnd Con** 121.9

TEXAS—*Continued*

San Angelo App Con 119.2 118.3 122.5R 115.1T 109.7T
ILS 109.7 I-SJT Apch Brg 033° **LOM:** 356/SJ
San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

§SAN ANTONIO INTL ***IFR*** 7N **FSS:** SAN ANTONIO on Fld
808 H85/12–30(3) (S–150, T–225, TT–300) BL4,6,8A,9 S5 F4, JP1 U2 **RVV:** Rnwy 3 **RVR:** Rnwy 12
Remarks: US customs lndg rts arpt 1000–2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′.
Tower 118.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 1208
ILS 110.9 I-ANT Apch Brg 123° BC unusable **LOM:** 305/AN
109.7 I-SAT Apch Brg 032° **LOM:** 219/SA
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
VHF/DF contact tower.
Remarks: **VOT:** 110.4.

SAN ANTONIO
§STINSON MUNI ***IFR*** 5S **FSS:** SAN ANTONIO (LC TA 6-9575)
577 H48/9–27(3) (S–40, T–75, TT–) BL5 S5 F4
Remarks: Trees all apchs. Tfc 800′ above terrain 1367′ MSL. Rnwy 14 threshold displaced 600′ SE; rnwy 32–400′ NW.
Tower[1] 119.5 122.7R **Gnd Con** 121.7
Radar Services:
San Antonio App Con 120.3 134.1 126.5 126.2R 122.5R
San Antonio Dep Con 123.9
Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld
Remarks: [1]Oper 1300–0500Z.

SEGUIN RBn HW 371/UCT **FSS:** SAN ANTONIO
Remarks: VFR only. Opers daylight hours Mon-Fri.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR **FSS:** DALLAS

TANK RBn BH 388/DDA **FSS:** DALLAS

TEMPLE (L) BVOR 110.4/TPL **FSS:** WACO

TEXICO (H) BVORTAC 112.2/TXO **FSS:** TUCUMCARI

TRADEWIND RBn MHW 338/AM **FSS:** AMARILLO

TYLER
§POUNDS FIELD ***IFR*** 4W **FSS:** TYLER on Fld
544 H52/13–31(3) (S–40, T–60, TT–100) BL5,6,8A,9 S5 F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl lndg rnwy 17.
Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I-TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT **FSS:** PALACIOS (512) 445-1281

§WACO MUNI ***IFR*** 5NW **FSS:** WACO on Fld
515 H57/18–36(3) (S–26, T–38, TT–)* BL4,6,8A,9 S5 F5 U2 **RVV:** Rnwy 18
Remarks: *Rnwy 14–32 (S–57, T–68, TT–104) Rnwy 5 threshold displaced 453′ E. Usable length rnwy 23–5500′; rnwy 5–5049′.

TEXAS—*Continued*

Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 115.3T
Dep Con 125.4
ILS 109.7 I-ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS
§SHEPPARD AFB/WICHITA FALLS AIR TRML ***IFR*** 5N **FSS:** WICHITA FALLS on Fld
1015 H131/15-33(2) (S-65, T-300, TT-530) BL4,6,8A,9,10 S5 F4, JP1 JP5 U2 **VASI:** Rnwys 15, 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700' rectangular tfc ptn 2200' MSL. Rgt tfc rnwys 17 & 33. Rnwy 17-35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Wichita Falls App Con 118.2 122.5R 109.7T
Wichita Falls Dep Con 118.2
ILS 109.7 I-SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.8 NM to rnwy 33.
VHF/DF ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK **FSS:** WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL **FSS:** SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE **FSS:** BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC **FSS:** CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA **FSS:** SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG **FSS:** SALT LAKE CITY

HANKSVILLE (H) BVORTAC 115.9/HVE **FSS:** CEDAR CITY

HILL RBn MHW 317/HI **FSS:** SALT LAKE CITY

LA SAL (L) BVORTAC 112.9/LXL **FSS:** GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU **FSS:** SALT LAKE CITY

MILFORD (H) BVORTAC 112.1/MLF **FSS:** CEDAR CITY

MYTON (H) BVORTAC 117.9/MTU **FSS:** GRAND JUNCTION

§OGDEN MUNI ***IFR*** 3SW **FSS:** SALT LAKE CITY (LC 394-8712)
4455 H73/3-21(3) (S-100, T-160, TT-280) BL4,11 S5 F5 JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000' NE end. 6300' avbl lndg day/ngt rnwy 21 and lndg rnwys. Tkof rnwy 21 ngts. 7300' avbl lndg rnwy 3 and tkof rnwys 21 days.
Tower[1] 118.7 122.5R ~~121.6~~ **Gnd Con** 121.7
Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1
Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
Remarks: [1]Oper 1300-0500Z.

PROVO (H) BVORTAC 116.6/PVU **FSS:** SALT LAKE CITY (LC 374-6327)

§SALT LAKE CITY MUNI NO. 1 ***IFR*** 4W **FSS:** SALT LAKE CITY on Fld
4226 H100/16R-34L(2) (S-100, T-160, TT-260) BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: Rnwy 7-25 & 14-32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500-2330Z Mon-Fri. No service holidays.
Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Salt Lake App Con 120.9 122.7R 116.8T 109.5T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I-SLC Apch Brg 339° **LOM:** 239/SL
(H) BVORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF[1] ctc FSS and twr
Remarks: [1]VHF/DF unusable 350-140°, 170-225° beyond 15 NM at MOCA. **VOT:** 111.0

VERNAL (L) BVOR 108.2/VEL **FSS:** GRAND JUNCTION

VERMONT

§BURLINGTON MUNI ***IFR*** 2E AOE **FSS:** MONTPELIER (LC 878-3393)
335 H78/15-33(2) (S-62, T-110, TT-195) BL5,6,8A,9 S5 F5, JP1, JP4 U2 DT2 **RVV:** Rnwys 15 and 33
Tower 118.3 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 122.5R 110.3T
Dep Con 119.2
ILS 110.3 I-BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H-SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF contact tower.
Remarks: VOT: 109.0.

MONTPELIER (L) BVOR 108.2/MPV **FSS:** MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK **FSS:** MONTPELLER

RUTLAND RBn MHWZ 391/RUT **FSS:** GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD **FSS:** LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA **FSS:** BLUEFIELD

BLACKSTONE RBn MHW 326/BKT **FSS:** BLACKSTONE (0600-2200) **FSS:** RICHMOND (2200-0600)

BROOKE (L) BVORTAC 111.8/BRV **FSS:** WASHINGTON

CAPE CHARLES (L) BVORTAC 112.2/CCV **FSS:** NEWPORT NEWS

CASANOVA (L) BVORTAC 109.6/CSN **FSS:** WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE ***IFR*** 7N **FSS:** CHARLOTTESVILLE on fld
634 H46(1) BL4,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
ILS 109.1 I-CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.9 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD **FSS:** ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN **FSS:** DANVILLE

ECLIPSE RBn HW 209/NGU **FSS:** NEWPORT NEWS

EVINGTON RBn MHW 385/EVI **FSS:** ROANOKE

FELKER (T) VOR 111.4/FAF **FSS:** NEWPORT NEWS
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU **FSS:** NEWPORT NEWS
RBn MHW 356/NTU

VIRGINIA—*Continued*

FLAT ROCK (H) BVORTAC 113.3/FAK **FSS:** RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN **FSS:** NEWPORT NEWS
RBn H 362/FKN. Private facility

FRONT ROYAL (H) BVORTAC 115.3/FRR **FSS:** MARTINSBURG

GORDONSVILLE (H) BVORTAC **FSS:** CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM **FSS:** NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN **FSS:** WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW **FSS:** RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP **FSS:** ROANOKE
Remarks: Private Facility

LANGLEY (L) VOR 111.6/LFI **FSS:** NEWPORT NEWS

LAWRENCEVILLE (L) BVOR 112.9/LVL **FSS:** BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE **FSS:** ROANOKE

LINDEN (L) BVORTAC 114.3/LDN **FSS:** WASHINGTON

§LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sept 6.
Lynchburg Tower 120.7 122.5 **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS[1] 110.1 I–LYH Apch Brg 032°
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: [1]BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR **FSS:** CHARLOTTESVILLE
112.6/MOL

MORRISON RBn MHW 248/MOV

NEWPORT NEWS
§PATRICK HENRY *IFR* 9NW **FSS:** NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5 F5, JP1 U2 DT **FSS:** NEWPORT NEWS on Fld
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30–Sept 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 126.8
ILS 110.1 I–PHF Apch Brg 065° **LOM:** 375/PH
Remarks: BC unusable below 1500′ MSL beyond 5 NM.

§NORFOLK MUNI *IFR* 5NE **FSS:** NEWPORT NEWS (DL)
26 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVV:** Rnwy 4
Remarks: DT May 30–Sept 5. Rnwy 13 threshold displaced 219′ SE. 4657′ avbl lndg rnwy 13. 4876′ avbl lndg and tkof rnwy 31 and tkof rnwy 13. Rnwy open day/ngt operns. Rnwy 19 threshold displaced 950′ SW. Dalgt operns 4050′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both direstions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibted from making eng runup when facing SE at the apch end of rnwy 4.
Tower 121.1 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.9 **Dep Con** 118.5
Tfc Info: Ctc App Con 25 mi out on 127.2.
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526

VIRGINIA—*Continued*

ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF contact tower.

PULASKI (H) BVORTAC 115.9/PSK **FSS:** BLUEFIELD
Rng SBMRAZ 272/PK

RICHMOND
§RICHARD E. BYRD FLYING FIELD *IFR* 6 E **FSS:** RICHMOND on Fld
167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5 F5, JP1, JP4 U2 DT **RVV:** Rnwy 6
Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ overrun each end rnwy 15–33. DT may 30–Sept 5.
Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Richmond App Con 119.0 126.2 122.5R 119.9 110.3T
Richmond Dep Con 118.2
Tfc Info Lndg acft App Con 35 mi out on 119.9
ASR Rnwys 2, 15,[1] 20, 24,[1] 33[1] Ceil 400 Vsby 1 mi Min Alt 567
Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667
ILS 110.3 I–RIC Apch Brg 063° **LOM:** 382/RI
Richmond (H) BVORTAC 114.1/RIC on fld.
Richmond SBH 260/RIC 018° 1.7 NM to fld.
Remarks: [1]400–¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT:** 110.8.

§ROANOKE MUNI *IFR* 3 NW
FSS: ROANOKE on Fld
1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5 F5, JP1 U2 DT **REIL:** Rnwy 23
Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sept 6.
Tower 118.3 122.5R 120.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 126.9 122.5R 120.2 109.0T
Dep Con 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374
Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV **FSS:** DANVILLE

SPRINGFIELD RBn MHW 353/SRI **FSS:** WASHINGTON

WOODRUM (T) VOR 109.0/ODR **FSS:** ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI **FSS:** BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K **FSS:** SEATTLE

ELLENSBURG (L) BVORTAC 117.9/ELN **FSS:** WENATCHEE

EPHRATA (H) BVOR 116.8/EPH **FSS:** EPHRATA

EVERETT
§PAINE FIELD *IFR* 6 SW **FSS:** SEATTLE (DL)
603 H90/16–34(2) (S–50, T–150, TT–220) BL6, 8A, 9 S5 F4, JP4 U2 DT2
Remarks: Rnwy 11 threshold displaced 1600′. Jet arresting barrier 3″ above rnwy 16/34 J-bar each end rnwy 34 not visible to twr 2000′ to 4000′ from apch end. Due constrn twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.
Tower 121.3 126.2 122.5R
Radar Services:
Seattle Center App Con 121.2
ILS 109.3 I–PAE Apch Brg 155° **LOM:** 396/PAE

WASHINGTON—*Continued*

Everett (L) VOR 114.2/PAE on fld.
Everett RBn HW 396/PAE 158° 7.9 NM to fld
Remarks: LOM is HW.

GRAY RBn MH 216/GRF **FSS:** SEATTLE

HOQUIAM (H) BVORTAC 115.4/HQM **FSS:** HOQUIAM
Remarks: Restricted to awy and apch only.

KITSAP RBn MHW 206/PWT **FSS:** SEATTLE
Remarks: Operd by County.

LARSON (L) VOR 117.0/LRN **FSS:** EPHRATA
RBn MHW 408/LR

NEAH BAY RBn HW 391/EBY **FSS:** SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM **FSS:** SEATTLE

PASCO (L) BVOR 108.4/PSC **FSS:** WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM **FSS:** SEATTLE

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§RENTON MUNI *IFR* Adjt NW 031° **FSS:** SEATTLE (LC RO 2-4000)
29 H53/15-33(1) (S-100, T-190, TT-300) BL4 S5
F4, U2 JP4 DT2
Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195-300° at 1000′ MSL beyond 2 mi.
Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9
Seattle Dep Con 119.2
Remarks: [1]Oper 0700-2300 lcl time.

SEATTLE
§KING COUNTY ARPT, BOEING FIELD *IFR* 4 S **FSS:** SEATTLE on fld
17 H100/13-31(2) (S-100, T-160, TT-290) BL6, 11, 12 S5
F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
Remarks: Rnwy 12-30 (Max-12.5)
Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2
ILS[1] 110.9 I-BFI Apch Brg 128° BC unusable **LOM:** 387/BF
Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.
Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

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§SEATTLE-TACOMA INTL *IFR* 10 S **FSS:** SEATTLE (DL)
428 H119/16-34(2) S-45, T-145, TT-300) BL4,6,8A,9,14
S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I-SEA[1] Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I-SZI[2] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF contact tower.
Remarks: [1]Automatic apchs not authorized from MM to touchdown. [2]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

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§SPOKANE INTL *IFR* 5 S **FSS:** SPOKANE
2372 H90/3-21(2) (S-100, T-200, TT-350) BL5, 6, 8A, 9
S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3-21.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3

WASHINGTON—*Continued*

Tfc Info Ctc Spokane App Con aprx 20 mi out.
ILS 109.9 I-GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: **VOT:** 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW **FSS:** SEATTLE

WALLA WALLA
§CITY-COUNTY *IFR* 3 NE **FSS:** WALLA WALLA on fld
1205 H72/2-20(3) BL4, 6, 8A, 9 S5 F5, JP4 DT2
Remarks: 1030′ overrun NE end, 500′ SW end.
Walla Walla Tower[1] 118.5 122.7R
(L) BVOR 111.8/ALW
RBn BH 356/ALW
Remarks: [1]Oper 1400-0200Z Mon-Fri; Clsd wkends, holidays. AAS propided by FSS when twr not in opern.

WENATCHEE (L) BVOR 111.0/EAT **FSS:** WENATCHEE

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§YAKIMA MUNI *IFR* 2 S **FSS:** YAKIMA on Fld
1082 H55/9-27(3) (S-50, T-60, TT-100) BL4, 6 8A, 9 S5
F5, JP1, JP4 U2
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.7 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I-YKM Apch Brg 269° **LOM:** 284/YK
(H) BVOR 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW **FSS:** CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF **FSS:** BLUEFIELD

CHARLESTON
§KANAWHA *IFR* 2 NE **FSS:** CHARLESTON on Fld
982 H56/5-23(2) (S-150, T-200, TT-44) BL4, 6, 8A, 9, 11
S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:
Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I-CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/SRW 084° 8.1 NM to fld
VHF/DF contact tower.
Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. **VOT:** 111.0.

CLARKSBURG (L) BVOR 115.1/CKB **FSS:** MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN **FSS:** ELKINS
Rng SBMRAZ 245/EN

HENDERSON (L) BVORTAC 111.2/HNN **FSS:** HUNTINGTON

HUNTINGTON
§TRI-STATE (WALKER LONG FLD) *IFR* 6 SW
FSS: HUNTINGTON on Fld
828 H53/11-29(1) (S-50, T-75, TT-135) BL6, 8A, 9 S5
F4, JP1 U2 DT1
Huntington Tower 120.9 122.5R **Gnd Con** 121.9
Huntington App Con 118.5 122.5R 109.9T
ILS[1] 109.9 I-HTS Apch Brg 114° **LOM:** 287/HT
Huntington RBn BH 323/HTW 199° 2.5 NM to fld.
Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL **FSS:** ELKINS

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§MARTINSBURG MUNI *IFR* 4 S **FSS:** MARTINSBURG on Fld
556 H70/8-26(2) (S-90, TT-) BL4,6 F4 DT2

WEST VIRGINIA—*Continued*

Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9

Radar Services:

Dulles App Con 119.2 126.1

Dulles Dep Con 125.55

PAR[2] Rnwy 26 Ceil 300 Vsby 3/4 mi Min Alt 856

ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956

(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.

Remarks: [1]Oper 0800–1630 Tues, Thur, Sat and Sun; 0830–2200 Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW **FSS:** MORGANTOWN

RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB **FSS:** PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL **FSS:** CHARLESTON

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§WHEELING-OHIO COUNTY *IFR* 7 N **FSS:** WHEELING on Fld

1195 H50/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12 F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21

Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9

ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL

Wheeling (L) BVORTAC 112.2/HLG 220° 5.8 NM to fld.

Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU **FSS:** ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW **FSS:** GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ **FSS:** WAUSAU

CAMP MC COY RBn MHW 412/CAY **FSS:** LA CROSSE

DELLS (L) BVORTAC 110.4/DLL **FSS:** LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU **FSS:** EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD **FSS:** GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG **FSS:** MINNEAPOLIS

GREEN BAY

§AUSTIN STRAUBEL *IFR* 7 SW **FSS:** GREEN BAY on Fld

694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT1 **RVR:** Rnwy 6

Remarks: US Customs lndg rts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE

Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9

Green Bay App Con 119.4

VFR ADV Ctc App Con on 119.4.

ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR

Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.

VHF/DF ctc FSS.

JANESVILLE

ROCK COUNTY *IFR* 4 SW **FSS:** ROCKFORD (LC EN5639)

808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2

REIL: Rnwy 4

Remarks: Rnwy 22 threshold displaced 6981 NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.

Tower 121.2 122.7R **Gnd Con** 121.9

Rockford App Con 119.6

(L) BVORTAC 113.4/JVL

Remarks: Opers 0600–2200 lcl time.

LACROSSE (T) BVOR 108.4/LSE **FSS:** LACROSSE

RBn MHW 371/LSE

WISCONSIN—*Continued*

LAND 'O LAKES RBn MHW 396/LNL **FSS:** WAUSAU

Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR **FSS:** LONE ROCK

MADISON

§TRUAX FIELD *IFR* 5 NE **FSS:** MADISON on Fld

859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36

Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.

Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9

Madison App Con 120.1 126.2 109.9T

Madison Dep Con 118.8

VFR ADV Ctc App Con on 120.1.

ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN

Madison RBn MHW 400/MSN 359° 3.9 NM to fld.

Truax (L) BVOR 115.5/TAX at fld.

VHF/DF contact FSS.

Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW **FSS:** GREEN BAY

MARSHFIELD RBn MHW 391/MFI

Remarks Operd by City

MILWAUKEE

§GENERAL MITCHELL FLD *IFR* 5 S **FSS:** MILWAUKEE on Fld

722 H99/1–19(4) (S–100. T–185, TT–350) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwy 1

Remarks: Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N. Rnwy 7L threshold displaced 667′ NE. Rnwy 25R threshold displaced 944′ SW. Air carrier turbo-jet trng lndgs and tkofs prohibited 0330–1100Z. Tkofs permitted rnwy 7R btn 040–100° and wind velocity greater than 10 knots only.

Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9

Clrnc Del 120.0

Radar Services: (BCN)

Milwaukee App Con 126.5 123.8 126.2 116.4T 110.3T 242T

Milwaukee Dep Con 118.0 126.2 122.7R 118.6

Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.

ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.

Rnwys 13, 19, 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223

Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1323

ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK

Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.

Mitchell RBn H–SAB 242●/GM 352° 1.4 NM to fld.

VHF/DF contact tower.

Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. **VOT:** 109.0

§TIMMERMAN FIELD *IFR* 5 NW **FSS:** MILWAUKEE (DL)

745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1

Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County arpt Director except emgcy.

Tower[1] 120.5 122.5R **Gnd Con** 121.7

Radar Services:

Milwaukee App Con 126.5[2] 126.2 123.8[2] 116.4T 110.3T 242T

Milwaukee Dep Con 118.0 126.2 122.7R 118.6

WISCONSIN—*Continued*

Tfc Info Ctc Milwaukee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200–0400Z. [2]360–179 [3]180–359.

OSHKOSH
§**WINNEBAGO CO** ***IFR*** 1 SW FSS: GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC FSS: MILWAUKEE

REWEY (L) BVOR 115.8/RWY FSS: LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI FSS: WAUSAU

SHEBOYGAN MHW 254/SBM

STEVENS POINT (L) BVOR-DME 110.6/STE FSS: WAUSAN
Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC FSS: MILWAUKEE

TRUAX (L) BVOR 115.5/TAX FSS: MADISON

VOLK (L) VOR 109.0/VOK FSS: LA CROSSE
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW FSS: WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI FSS: ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY FSS: WORLAND

§**CASPER AIR TERMINAL** ***IFR*** 7 NW FSS: CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2
Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVOR 112.2/CKW FSS: RAWLINS

§**CHEYENNE MUNI** ***IFR*** 1 N FSS: CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
VFR Adv Ctc App Con on 118.7 aprx 25 mi out.
App Con 119.9 122.5R 113.1T 109.9T
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1/CYS 196X 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI FSS: SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW FSS: CASPER

DUNOIR (L) BVOR 113.4/DNW FSS: WORLAND

WYOMING—*Continued*

FORT BRIDGER (L) BVORTAC 108.6/FBR FSS: ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC FSS: IDAHO FALLS
Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR FSS: LARAMIE

MEDICINE BOW (L) BVOR 114.1/MBW FSS: LARAMIE

RIVERTON (L) BVOR 108.8/RIW FSS: WORLAND

§**ROCK SPRINGS MUNI** ***IFR*** 7E FSS: ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I-RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290/RKS
VHF/DF ctc FSS

SHERIDAN (L) BVORTAC 115.3/SHR FSS: SHERIDAN

SINCLAIR RBn SBH 368/SIR FSS: RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE FSS: SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ FSS: SAN JUAN

SAN JUAN
§**ISLA GRANDE** Adj W FSS: SAN JUAN
10 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100–0200Z

§**PUERTO RICO INTL** 6E FSS: SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9
ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391.SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP FSS: SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX FSS: ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§**HARRY S. TRUMAN** 2W FSS: SAN JUAN
11 H42/9–27(1) (S–30, T–45, TT–70) BL5 F4
Remarks: U.S. Customs lndg rgts.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE PART I DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)	VHF (High)
119.8 124.5 124.6 124.7	132.65 132.9 133.0 133.05
125.2 125.4 125.9 126.0	133.45 133.55 133.65 133.8
126.4 126.9 127.2 132.3	133.85 134.35 134.45 134.75
134.5	135.05 135.15 135.3 135.7
	135.8

ATLANTA

VHF (Low)	VHF (High)
118.9 120.0 120.3 120.8	132.25 132.75 132.85 132.9
120.9 121.2 123.8 124.1	133.1 133.35 133.7 134.45
124.4 125.2 125.5 126.4	134.55 134.6 135.15 135.75
126.6 126.8 127.55 127.8	
127.95 128.3 128.6 128.65	
128.75 135.6	

BOSTON

VHF (Low)	VHF (High)
119.0 121.0 124.0 124.2	127.8 128.1 132.5 132.65
124.9 125.8 127.0 127.1	132.9 133.5 134.3 134.7
127.3 127.6 127.8 127.9	134.45 134.95 134.85
128.1 128.2 132.4 132.5	
132.65 135.7	

CHICAGO

VHF (Low)	VHF (High)
119.4 119.6 120.2 120.4	124.5 127.95 132.15 128.65
120.6 120.8 121.4 123.9	132.4 132.5 132.75 133.1
124.0 124.1 124.4 124.8	133.35 133.5 133.7 133.9
125.1 125.2 125.6 126.4	133.95 134.85 135.1 135.35
126.6 126.8 127.0 127.1	135.55
127.5 127.6 127.7 127.8	
128.0 128.05 128.2 128.4	
128.5 128.7 132.2 132.3	

CLEVELAND

VHF (Low)	VHF (High)
118.8 118.9 119.6 119.8	132.25 132.45 133.25 133.3
120.2 120.3 120.4 120.6	133.95 134.25 134.65
120.8 121.2 121.4 123.9	
124.2 124.3 124.4 124.6	
125.0 125.1 125.2 125.3	
125.6 125.7 126.1 126.4	
126.8 127.15 127.45 127.5	
127.65 127.9 128.35 128.45	
128.6 134.3	

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)	VHF (High)
119.8 124.1 125.0 125.6	127.55 128.2 132.1 132.05
125.8 126.0 127.2 127.8	132.15 132.85 133.15 127.3
132.5 132.7 133.0 133.4	133.3 133.75 133.85 134.4
134.6	134.65 134.7 135.5 135.15
	135.65

FORT WORTH

VHF (Low)	VHF (High)
119.4 124.4 124.6 124.7	132.2 132.35 132.45 132.55
124.8 125.0 125.5 125.6	132.75 133.25 133.35 133.5
126.0 126.6 127.3 127.7	133.55 133.7 133.95 134.25
128.1 128.3 128.8 133.1	134.55 134.85 135.1 135.35
133.3 133.9 135.0 135.6	135.4 135.6 135.75

GREAT FALLS

VHF (Low)	VHF (High)
120.4 124.1 125.0 125.1	118.9 125.0 132.25 132.65
125.8 125.9 126.4 126.5	132.95 133.4 133.55 134.55
127.6	135.25 135.55

HOUSTON

VHF (Low)	VHF (High)
118.2 118.9 120.6 120.7	127.8 132.15 132.4 132.5
121.0 121.2 124.0 124.1	132.6 132.7 132.8 132.95
124.2 125.8 125.9 126.0	133.05 133.4 133.65 133.75
126.4 126.6 126.8 126.9	133.85 134.35 134.8 134.95
126.95 127.0 127.2 128.0	135.2
128.1 128.2 128.3 128.4	
132.9 134.7	

INDIANAPOLIS

VHF (Low)	VHF (High)
118.2 124.2 124.4 124.8	128.25 132.7 133.05 133.45
126.0 127.0 127.1 127.3	133.75 134.35 134.75 134.9
127.4 128.3 128.4 128.55	134.95
128.8 132.2 132.6 135.1	
135.7 135.8	

WISCONSIN—*Continued*

Tfc Info Ctc Milwaukee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200–0400Z. [2]360–179 [3]180–359.

OSHKOSH
§WINNEBAGO CO *IFR* 1 SW **FSS:** GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC **FSS:** MILWAUKEE

REWEY (L) BVOR 115.8/RWY **FSS:** LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI **FSS:** WAUSAU

SHEBOYGAN MHW 254/SBM

STEVENS POINT (L) BVOR-DME 110.6/STE **FSS:** WAUSAN
Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC **FSS:** MILWAUKEE

TRUAX (L) BVOR 115.5/TAX **FSS:** MADISON

VOLK (L) VOR 109.0/VOK **FSS:** LA CROSSE
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW **FSS:** WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI **FSS:** ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY **FSS:** WORLAND

§CASPER AIR TERMINAL *IFR* 7 NW **FSS:** CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2
Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVOR 112.2/CKW **FSS:** RAWLINS

§CHEYENNE MUNI *IFR* 1 N **FSS:** CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
VFR Adv Ctc App Con on 118.7 aprx 25 mi out.
App Con 119.9 122.5R 113.1T 109.9T
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1/CYS 196X 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI **FSS:** SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW **FSS:** CASPER

DUNOIR (L) BVOR 113.4/DNW **FSS:** WORLAND

WYOMING—*Continued*

FORT BRIDGER (L) BVORTAC 108.6/FBR **FSS:** ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC **FSS:** IDAHO FALLS
Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR **FSS:** LARAMIE

MEDICINE BOW (L) BVOR 114.1/MBW **FSS:** LARAMIE

RIVERTON (L) BVOR 108.8/RIW **FSS:** WORLAND

§ROCK SPRINGS MUNI *IFR* 7E **FSS:** ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290/RKS
VHF/DF ctc FSS

SHERIDAN (L) BVORTAC 115.3/SHR **FSS:** SHERIDAN

SINCLAIR RBn SBH 368/SIR **FSS:** RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE **FSS:** SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ **FSS:** SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W **FSS:** SAN JUAN
10 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100–0200Z

§PUERTO RICO INTL 6E **FSS:** SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9
ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391.SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP **FSS:** SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX **FSS:** ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W **FSS:** SAN JUAN
11 H42/9–27(1) (S–30, T–45, TT–70) BL5 F4
Remarks: U.S. Customs lndg rgts.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE PART I DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)	VHF (High)
119.8 124.5 124.6 124.7	132.65 132.9 133.0 133.05
125.2 125.4 125.9 126.0	133.45 133.55 133.65 133.8
126.4 126.9 127.2 132.3	133.85 134.35 134.45 134.75
134.5	135.05 135.15 135.3 135.7
	135.8

ATLANTA

VHF (Low)	VHF (High)
118.9 120.0 120.3 120.8	132.25 132.75 132.85 132.9
120.9 121.2 123.8 124.1	133.1 133.35 133.7 134.45
124.4 125.2 125.5 126.4	134.55 134.6 135.15 135.75
126.6 126.8 127.55 127.8	
127.95 128.3 128.6 128.65	
128.75 135.6	

BOSTON

VHF (Low)	VHF (High)
119.0 121.0 124.0 124.2	127.8 128.1 132.5 132.65
124.9 125.8 127.0 127.1	132.9 133.5 134.3 134.7
127.3 127.6 127.8 127.9	134.45 134.95 134.85
128.1 128.2 132.4 132.5	
132.65 135.7	

CHICAGO

VHF (Low)	VHF (High)
119.4 119.6 120.2 120.4	124.5 127.95 132.15 128.65
120.6 120.8 121.4 123.9	132.4 132.5 132.75 133.1
124.0 124.1 124.4 124.8	133.35 133.5 133.7 133.9
125.1 125.2 125.6 126.4	133.95 134.85 135.1 135.35
126.6 126.8 127.0 127.1	135.55
127.5 127.6 127.7 127.8	
128.0 128.05 128.2 128.4	
128.5 128.7 132.2 132.3	

CLEVELAND

VHF (Low)	VHF (High)
118.8 118.9 119.6 119.8	132.25 132.45 133.25 133.3
120.2 120.3 120.4 120.6	133.95 134.25 134.65
120.8 121.2 121.4 123.9	
124.2 124.3 124.4 124.6	
125.0 125.1 125.2 125.3	
125.6 125.7 126.1 126.4	
126.8 127.15 127.45 127.5	
127.65 127.9 128.35 128.45	
128.6 134.3	

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)	VHF (High)
119.8 124.1 125.0 125.6	127.55 128.2 132.1 132.05
125.8 126.0 127.2 127.8	132.15 132.85 133.15 127.3
132.5 132.7 133.0 133.4	133.3 133.75 133.85 134.4
134.6	134.65 134.7 135.5 135.15
	135.65

FORT WORTH

VHF (Low)	VHF (High)
119.4 124.4 124.6 124.7	132.2 132.35 132.45 132.55
124.8 125.0 125.5 125.6	132.75 133.25 133.35 133.5
126.0 126.6 127.3 127.7	133.55 133.7 133.95 134.25
128.1 128.3 128.8 133.1	134.55 134.85 135.1 135.35
133.3 133.9 135.0 135.6	135.4 135.6 135.75

GREAT FALLS

VHF (Low)	VHF (High)
120.4 124.1 125.0 125.1	118.9 125.0 132.25 132.65
125.8 125.9 126.4 126.5	132.95 133.4 133.55 134.55
127.6	135.25 135.55

HOUSTON

VHF (Low)	VHF (High)
118.2 118.9 120.6 120.7	127.8 132.15 132.4 132.5
121.0 121.2 124.0 124.1	132.6 132.7 132.8 132.95
124.2 125.8 125.9 126.0	133.05 133.4 133.65 133.75
126.4 126.6 126.8 126.9	133.85 134.35 134.8 134.95
126.95 127.0 127.2 128.0	135.2
128.1 128.2 128.3 128.4	
132.9 134.7	

INDIANAPOLIS

VHF (Low)	VHF (High)
118.2 124.2 124.4 124.8	128.25 132.7 133.05 133.45
126.0 127.0 127.1 127.3	133.75 134.35 134.75 134.9
127.4 128.3 128.4 128.55	134.95
128.8 132.2 132.6 135.1	
135.7 135.8	

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
124.3	124.7	125.1	125.5	133.25	133.95	134.25	134.75
126.5	126.9	127.2	128.1	134.85	135.4	135.05	135.25
132.3	132.5	132.8	133.4	135.55	135.65		
133.5	134.3	134.7					

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.5	135.4			
125.9	127.4	127.5	127.6				
127.7	127.8	128.1	128.4				
128.6	132.1	134.6	134.9				

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	125.8	127.9	128.3	128.6	132.15
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.8
127.1	127.3	127.4	128.2	134.55	134.75	134.95	135.25
128.4	128.8	132.3	132.5	135.45			
132.6	133.4	133.8	134.2				
134.4	134.6	135.05					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	126.1	127.1	134.25	134.9	135.3	135.5
127.2	127.25	127.3	127.4	135.7			
127.6	127.75	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	125.8	127.7	132.7
124.4	124.5	124.7	125.4	132.15	132.95	133.65	133.8
125.6	125.8	126.4	127.0	134.35	134.5	134.95	135.5
127.2	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.5	132.15	133.4	133.55	133.65
125.6	125.9	126.0	126.1	133.85	134.25	134.45	134.8
127.1	127.2	127.3	127.8	134.55	135.45	135.7	
127.9	128.6	132.1	132.6				
134.6	134.8						

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.2	132.1	132.3	132.75	132.95
124.8	125.1	125.3	125.4	133.8	133.9	134.8	135.45
125.5	125.6	126.0	126.4	135.55	135.75		
126.6	126.8	126.9	127.95				
128.2	128.3	128.5	128.65				
128.7	132.6	134.6	135.1				
135.6	135.65						

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	128.15	132.05	132.8	132.65
121.2	123.8	123.9	124.2	132.85	132.95	133.3	133.7
124.6	125.5	125.7	125.9	133.75	134.35	134.7	
126.5	126.8	127.05	127.3				
127.2	127.5	127.7	127.8				
128.7							

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.40	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	128.4	133.1	134.25	134.85	135.7	

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.3	125.1	125.3	125.6	133.0	133.5	133.65	133.9
125.8	126.0	128.1	132.1	134.65	134.75	134.95	
132.6	133.0	133.5					

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.5	133.15	133.55	133.65	133.85
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
134.3	135.0	135.4					

SAN JUAN

VHF (Low)	VHF (High)			
	119.9	120.3	121.5	125.0

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 2 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

- ★ **Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.**
- ◆ Indicates a restricted number, use for aviation weather information
- ▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed. Four designated part-time FSS's transmit and receive on only 123.6 and 121.5 (emergency). These are identified in the tabulation by ✓ symbol preceding the name.

Location and Identifier			Area Code	Telephone
ALABAMA				
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595–6151▬
		WB	(205)	595–2101★
Dothan DHN	DF	FSS	(205)	794–6683
Huntsville HSV		FSS	(205)	536–1254
		WB	(205)	881–2761◆
Mobile MOB (Bates)		FSS	(205)	342–1177
		WB	(205)	342–2762◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269–4368
		WB	(205)	263–0621◆
Muscle Shoals MSL	DF	FSS	(205)	383–6541
		WB	(205)	383–6657◆
Tuscaloosa TCL		FSS	(205)	758–3628
ARIZONA				
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4–5353
Flagstaff		WB	(602)	774–1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261–4295▬
		WB	(602)	261–3868◆
Prescott PRC	DF	FSS	(602)	HI 5–2160
Tucson TUS	DF	FSS	(602)	294–1463▬
Winslow		WB	(602)	289–3592
Yuma YUM		FSS	(602)	725–2601▬
ARKANSAS				
El Dorado ELD (Goodwin)		FSS	(501)	UN 3–9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2–8277
ARKANSAS (Con't)				
Ft. Smith FSM		FSS	(501)	MI 6–1791
		WB	(501)	646–5731
Harrison HRO		FSS	(501)	EM 5–3433
Little Rock		WB	(501)	374–1546◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5–0652
Texarkana TXK		FSS	(501)	774–6221
Walnut Ridge ARG		FSS	(501)	TU 6–6671
CALIFORNIA				
Arcata ACV	DF	FSS	(707)	TE 9–2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399–1787▬
Bishop		WB	(714)	873–3213 (0545–1915)
Blue Canyon		WB	Emigrant Gap	2721 (0545–1415)
Blythe BLH	DF	FSS	(714)	948–6638
Burbank				
		WB	(213)	848–6206◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4–2514
Daggett DAG		FSS	(714)	CL4–2223
Eureka		WB	(707)	442–2171◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251–8269▬
Imperial IPL		FSS	(714)	355–1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429–0337◆
Los Angeles LAX (International)		FSS	(213)	SP 6–2727
		WB	(213)	670–2223
Marysville MYV (Yuba Co.)		FSS	(916)	742–1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459–3003
Mt Shasta		WB	(916)	926–2227 (0730–1600)
Needles EED		FSS	(714)	326–3511

CALIFORNIA (Con't.)

Location and Identifier			Area Code	Telephone
Oakland OAK (International)		FSS	(415)	562-7807▬
		WB	(415)	832-5418★
				(Via San Francisco)
Ontario ONT		FSS	(714)	983-2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947-3502
Paso Robles PRB	DF	FSS	(805)	238-2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527-0242▬
Sacramento SAC	DF	FSS	(916)	428-6500▬
Salinas SNS		FSS	(408)	422-4723
San Diego SAN (Lindbergh)		FSS	(714)	296-3181▬
San Francisco		WB	(415)	589-6711★
		WB	(415)	761-2052◆
(So. San Francisco)		WB	(415)	588-3012
Santa Barbara SBA		FSS	(805)	967-2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925-3525
				(0600-2200)
Stockton SCK		FSS	(209)	466-3684▬
Thermal TRM		FSS	(714)	EX 9-5155
Ukiah UKI		FSS	(707)	462-6136

COLORADO

Location and Identifier			Area Code	Telephone
Akron AKO		FSS	(303)	345-2271
Alamosa		WB	(303)	589-2547
				(0400-2000)
Colorado Springs		WB	(303)	632-0535◆
Denver DEN (Stapleton Intl)		FSS	(303)	297-3277▬
		WB	(303)	388-3653★
Eagle EGE		FSS	(303)	328-2125
Grand Junction GJT (Walker Field)		FSS	(303)	242-1801▬
La Junta LHX		FSS	(303)	DU 4-4311
Pueblo PUB (Memorial)		FSS	(303)	948-3301
		WB	(303)	948-3376◆
Trinidad TAD	DF	FSS	(303)	846-2623

CONNECTICUT

Location and Identifier			Area Code	Telephone
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247-2855◆
New Haven		WB	(203)	469-2141◆
				(0630-1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3-5590

DELAWARE

Location and Identifier			Area Code	Telephone
Wilmington		WB	(302)	328-2755◆

DISTRICT OF COLUMBIA

Location and Identifier			Area Code	Telephone
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661-8526◆
Washington National DCA		FSS	(202)	DI 7-1442
		WB	(202)	628-0491▬
		WB	(202)	347-8016★

▬This line answered by FSS or WB. Caller can be switched to either office upon request.

FLORIDA

Location and Identifier			Area Code	Telephone
Apalachicola		WB	(305)	653-3171
Crestview CEW	DF	FSS	(305)	MU 2-2795
Daytona Beach DAB		FSS	(904)	255-4767
		WB	(904)	252-5949
Ft. Myers FMY (Page Field)		FSS	(813)	936-1857
		WB	(813)	WE 6-2057
				(0600-1400 Apr-Oct)
				(0600-2200 Nov-Mar)
Gainesville GNV		FSS	(904)	376-8521
Jacksonville JAX (Imeson)		FSS	(904)	355-3601▬
		WB	(904)	353-8605★
Key West EYW (International)		FSS	(305)	CY 6-2042
		WB	(305)	CY 6-2011
Lakeland		WB	(813)	682-4221
				(0600-2400 Nov 15-Mar 15)
				(0800-1700 Mar 16-Nov 14)
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3-6151
Miami MIA		IFSS	(305)	633-1461▬
		WB	(305)	666-2543★
Orlando ORL (Herndon)		FSS	(305)	841-5101
Pensacola PNS		FSS	(305)	HE 8-4390
St Petersburg via Tampa		WB	(813)	894-3086★
Tallahassee TLH	DF	FSS	(305)	224-7101
		WB	(305)	222-3335
Tampa TPA (Tampa International)		FSS	(813)	877-7503
		WB	(813)	872-9964★
		WB	(813)	877-1677◆
Vero Beach VBR	DF	FSS	(305)	562-2167
			(305)	464-1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832-5697★
		WB	(305)	683-3032◆

GEORGIA

Location and Identifier		Area Code	Telephone
Albany ABY	FSS	(912)	435–6201
Alma AMG	FSS	(912)	632–4422 (0600–2200 EST)
Athens	WB	(404)	LI 3–3891◆
Atlanta FTY (Fulton Co.) DF	FSS	(404)	344–1551
	WB	(404)	767–0244★
	WB	(404)	767–3187◆
Augusta AGS (Bush Fld)	FSS	(404)	798–5164
	WB	(404)	798–6821★
Brunswick SSI (Malcom McKinnon)	FSS	(912)	638–8641
Columbus CSG (Muscogee County)	FSS	(404)	322–6458
	WB	(404)	322–1793◆ (0630–2045)
Macon MCN (Muni)	FSS	(912)	788–5064
	WB	(912)	788–1100◆
Rome	WB	(404)	232–6801 (0700–1300 Mon–Fri) (0700–1100 Sat)
Savannah SAV (Travis)	FSS	(912)	234–2257/8■
	WB	(912)	233–0272
Valdosta VLD	FSS	(912)	CH 4–2361

IDAHO

Location and Identifier		Area Code	Telephone
Boise BOI (Air Terminal)	FSS	(208)	343–2525■
Burley BYI	FSS	(208)	678–7451
Idaho Falls IDA (Fanning Field) DF	FSS	(208)	522–9024
Lewiston	WB	(208)	743–3841
Malad City MLD	FSS	(208)	766–2971
Mullan Pass MLP	FSS	(208)	PR 5–2001
Pocatello PIH	FSS	(208)	232–2032
	WB	(208)	233–0143◆

ILLINOIS

Location and Identifier		Area Code	Telephone
Champaign CMI (University of Ill.)	FSS	(217)	822–5211
Chicago	WB	(312)	686–2155◆
	WB	(312)	667–5055★
Joliet JOT DF	FSS	(815)	725–3144
	FSS	(312)	242–3111
Moline MLI (Quad City)	FSS	(309)	762–2412
	WB	(309)	762–1726
Peoria PIA (Greater Peoria)	FSS	(309)	697–0751
	WB	(309)	637–6422◆
Quincy UIN (Baldwin)	FSS	(217)	885–3251
Rockford RFD (Greater Rockford)	FSS	(815)	965–6758
	WB	(815)	963–5816◆ (0515–2115)
Springfield SPI (Capital)	FSS	(217)	544–9012
	WB	(217)	523–5812◆
Vandalia VLA	FSS	(618)	283–0478

INDIANA

Location and Identifier		Area Code	Telephone
Evansville EVV (Dress Memorial) DF	FSS	(812)	422–8120
	WB	(812)	424–9613◆
Ft. Wayne FWA (Baer Field)	FSS	(219)	747–3139
	WB	(219)	747–2577◆
Indianapolis IND (Weir-Cook) DF	FSS	(317)	244–3316■
	WB	(317)	244–2411★
Layfayette LAF (Purdue University)	FSS	(317)	743–1802/3
South Bend SBN (St. Joseph Co.) DF	FSS	(219)	CE 3–4433
	WB	(219)	234–3937◆
Terre Haute HUF (Hulman)	FSS	(812)	C–2704

IOWA

Location and Identifier		Area Code	Telephone
Burlington BRL	FSS	(319)	752–4734
Cedar Rapids CID	FSS	(319)	364–3041
Davenport (via Moline Ill.)	WB	(319)	326–2677
Des Moines DSM	FSS	(515)	285–5691
	WB	(515)	284–4493◆
Dubuque	WB	(319)	582–3171 (0545–2105)
Mason City MCW	FSS	(515)	GA 3–7512
Ottumwa OTM	FSS	(515)	MU 2–1846
Sioux City SUX DF	FSS	(712)	258–1060
	WB	(712)	252–0244 ext 210
Waterloo ALO	FSS	(319)	AD 3–5528
	WB	(319)	234–1602◆

KANSAS

Location and Identifier		Area Code	Telephone
Concordia	WB	(913)	243–3141
Chanute CNU	FSS	(316)	HE 1–4450
Dodge City DDC	FSS	(316)	HU 3–3441
	WB	(316)	483–3311
Emporia EMP	FSS	(316)	DI 2–7475
Garden City GCK (New Municipal)	FSS	(316)	BR 6–2531
Goodland GLD	FSS	(913)	899–7154
	WB	(913)	899–2360◆
Hill City HLC	FSS	(913)	674–5642
Hutchinson HUT	FSS	(316)	2–4851
✓Manhattan MHK	FSS	(913)	PR 8–2162 (0700–1900) (Other hrs. Salina) LC PR 6–9751
Russell RSL	FSS	(913)	483–2312
Salina SLN	FSS	(913)	TA 5–5309
Topeka TOP (Phillip Billard)	FSS	(913)	232–5478
	WB	(913)	CE 4–8659◆
Wichita ICT	FSS	(316)	942–2261/2
	WB	(316)	942–3284★
	WB	(316)	943–1063◆

KENTUCKY

Location and Identifier		Area Code	Telephone
Bowling Green BWG (Warren County)	FSS	(502)	843–4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381–8195◆
Lexington LEX (Blue Grass)	FSS	(606)	254–5143
	WB	(606)	255–1774◆
London LOZ	FSS	(606)	864–4410
Louisville LOU (Bowman)	FSS	(502)	451–5344
	WB	(502)	368–2188◆
Paducah PUK (Barkley)	FSS	(502)	442–1551

LOUISIANA

Alexandria AEX DF	FSS	(318)	445–3663▬
Baton Rouge BTR (Ryan)	FSS	(504)	EL 5–2763
	WB	(504)	357–9943◆
Lafayette LFT	FSS		CE 5–3752
	WB		234–1220◆
Lake Charles LCH	FSS	(318)	477–1784▬
	WB	(318)	477–5227◆
Monroe MLU	FSS	(318)	322–3157
New Orleans MSY	FSS	(504)	943–5535
	WB	(504)	523–4311★
	WB	(504)	729–2520◆
Shreveport SHV (Greater Shreveport)	FSS	(318)	ME 1–3661
	WB	(318)	631–1141◆

MAINE

Augusta AUG (State)	FSS	(207)	622–6491
Caribou	WB	(207)	496–8931
Houlton HUL (Memorial International) DF	FSS	(207)	532–2475
Millinocket MLT	FSS	(207)	723–8343
Old Town OLD	FSS	(207)	827–2363
	FSS	(207)	827–4010
Portland PWM	FSS	(207)	SP 5–0602
	WB	(207)	775–3071◆

MARYLAND

Baltimore	WB	(301)	761–1333◆
	WB	(301)	766–0757★
Salisbury SHV (Salisbury-Wicomico)	FSS	(301)	742–7324

MASSACHUSETTS

Boston BOS (Logan)	FSS	(617)	LO 7–0099▬
	FSS	(617)	LO 7–0015▬
	WB	(617)	569–1773★
Nantucket ACK DF	FSS	(617)	228–0815▬
	WB	(617)	228–0971
Worcester ORH	FSS	(617)	PL 5–6083
	WB	(617)	798–2124◆ (0600-2200)

MICHIGAN

Location and Identifier		Area Code	Telephone
Alpena	WB	(517)	354–8733◆ (0645–1915)
Battle Creek BTL (Kellogg)	FSS	(616)	2–7878
Detroit DTW (City)	FSS	(313)	372–3737
	WB	(313)	274–5310★
	WB	(313)	278–7340◆
Detroit (Willow Run)	WB	(313)	482–5001◆
Flint FNT (Bishop)	FSS	(313)	CE 3–6250
	WB	(313)	CE 4–3987◆
Grand Rapids GRR (Kent County)	FSS	(616)	949–4090
	WB	(616)	949–4251◆
Houghton HTL (Houghton County)	FSS	(906)	482–0380
Houghton Lake (Roscommon County)	WB	(517)	366–5392
Jackson JXN (Reynolds Mun.)	FSS	(517)	ST 4–9640
Lansing LAN (Capital City)	FSS	(517)	482–9237
	WB	(517)	489–4603◆
Marquette MQT	FSS	(906)	GR 5–4197
	WB	(906)	226–8642◆ (0500–2100)
Muskegon MKG (Muskegon County)	FSS	(616)	798–1222
	WB	(616)	798–3048
Pellston PLN (Emmet County)	FSS	(616)	LE 9–8401
Saginaw MBS (Tri City) DF	FSS	(517)	OX 5–6621
Saulte Ste Marie SSM	FSS	(906)	632–8271
	WB	(906)	632–9461
Traverse City TVC	FSS	(616)	947–5056
Ypsilanti	WB	(313)	482–5001

MINNESOTA

Alexandria AXN	FSS	(612)	763–3710
Duluth	WB	(218)	722–7982◆
Hibbing HIB (Chisholm-Hibbing)	FSS	(218)	262–1820
International Falls	WB	(218)	285–5151
Minneapolis MSP St. Paul Intl	FSS	(612)	PA 9–9386
(Wold-Chamberlain) DF	FSS	(612)	PA 9–1957
	WB	(612)	PA 9–4429◆
	WB	(612)	729–9339★
Redwood Falls RWF	FSS	(507)	637–8530
Rochester RST	FSS	(507)	289–1579▬
St. Cloud	WB	(612)	251–3213 (0400–2200)
St. Paul (See: Minneapolis)			

MISSISSIPPI

Greenwood GRW	FSS	(601)	GL 3–2631
Jackson JAN (Thompson Field)	FSS	(601)	939–5212
	WB	(601)	939–5881◆

MISSISSIPPI (Con't.)

Location and Identifier		Area Code	Telephone
McComb MCB (Pike County)	FSS	(601)	684–7070
Meridian MEI (Key Field)	FSS	(601)	482–1243
	WB	(601)	483–3725◆
Vicksburg	WB	(601)	636–1193 (0630–1530 Mon–Fri) (0630–1130 Sat, Holidays) (clsd Sunday)

MISSOURI

Location and Identifier		Area Code	Telephone
Cape Girardeau GGI	FSS	(314)	ED 4–2803
Columbia CBI	FSS	(314)	449–1136/7
	WB	(314)	443–4332
Joplin JLN	FSS	(417)	MA 3–6868
Kansas City MKC	FSS	(816)	GR 1–5484■
	WB	(816)	471–2131★
Kirksville IRK	FSS	(816)	MO 5–4132
St. Joseph STJ (Rosecrans Memorial)	FSS	(816)	BR 9–2394
St. Louis STL (Lambert)	FSS	(314)	PE 1–0900
	WB	(314)	731–3001◆
	WB	(314)	PE 1–3004★
	WB	(314)	848–3303★ (Hazlewood)
Springfield SGF DF	FSS	(417)	862–3588■
Vichy VIH (Rolla National)	FSS	(314)	AX 9–3677

MONTANA

Location and Identifier		Area Code	Telephone
Billings BIL (Logan Field) DF	FSS	(406)	259–4545■
Bozeman BZN (Gallatin Field)	FSS	(406)	586–6520
Butte BTM (Silver Bow)	FSS	(406)	723–3004
Cut Bank CTB	FSS	(406)	938–4522
Dillon DLN	FSS	(406)	683–5651
Glasgow Intl	WB	(406)	228–8395 (0300–2400)
Great Falls GTF (International)	FSS	(406)	452–6495
	WB	(406)	453–3512◆
Havre	WB	(406)	265–6424 (0430–1315)
Helena HLN	FSS	(406)	442–9902
	WB	(406)	442–8260
Kalispell	WB	(406)	756–4829
Lewistown LWT	FSS	(406)	538–3639
Livingston LVM (Mission Field)	FSS	(406)	222–2411
Miles City MLS DF	FSS	(406)	232–1503
Missoula MSO (Missoula City)	FSS	(406)	542–2230
	WB	(406)	543–7996◆

NEBRASKA

Location and Identifier		Area Code	Telephone
Chadron CDR	FSS	(308)	HE 2–3153
Grand Island GRI	FSS	(308)	382–5196
	WB	(308)	384–1907
Imperial IML	FSS	(308)	TU 2–4887
Lincoln LNK (Mun/AFB)	FSS	(402)	477–3929■
Norfolk	WB	(402)	371–3386 (0530–2130)
North Plate LBF (Lee Bird)	FSS	(308)	LE 2–4034■
Omaha OMA (Eppley)	FSS	(402)	341–6178■
	WB	(402)	342–3603★
Scottsbluff BFF	FSS	(308)	635–2615
	WB	(308)	632–6822
Sidney SNY	FSS	(308)	254–3130
Valentine	WB	(402)	376–3442

NEVADA

Location and Identifier		Area Code	Telephone
Elko EKO	FSS	(702)	738–6506■
Ely ELY (Yelland Filed)	FSS	(702)	264–2045
	WB	(702)	264–2403
Las Vegas LAS (McCarran)	FSS	(702)	736–1573/4■
Lovelock LOL (Derby Field) DF	FSS	(702)	CR 3–2448
Reno RNO	FSS	(702)	784–5414
	WB	(702)	784–5402◆
Tonopah TPH (Nye County)	FSS	(702)	482–6421
Winnemucca	WB	(702)	623–2203

NEW HAMPSHIRE

Location and Identifier		Area Code	Telephone
Concord CON	FSS	(603)	224–7474■
Lebanon LEB (Regional)	FSS	(603)	298–8360

NEW JERSEY

Location and Identifier		Area Code	Telephone
Atlantic City	WB	(609)	641–4327◆
Millville MIV	FSS	(609)	825–1173
Newark	WB	(201)	624–8118 624–7272★ (Via New York)
Teterboro TEB	FSS	(201)	288–9092

NEW MEXICO

Location and Identifier		Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)	FSS	(505)	243–7831■
	WB	(505)	242–2661★
Carlsbad CNM	FSS	(505)	TU 5–2042
Clayton	WB	(505)	374–9511 (0430–1130 Mon–Fri) (0430–0930 Sat)

KENTUCKY

Location and Identifier		Area Code	Telephone
Bowling Green BWG (Warren County)	FSS	(502)	843-4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381-8195◆
Lexington LEX (Blue Grass)	FSS	(606)	254-5143
	WB	(606)	255-1774◆
London LOZ	FSS	(606)	864-4410
Louisville LOU (Bowman)	FSS	(502)	451-5344
	WB	(502)	368-2188◆
Paducah PUK (Barkley)	FSS	(502)	442-1551

LOUISIANA

Alexandria AEX DF	FSS	(318)	445-3663▬
Baton Rouge BTR (Ryan)	FSS	(504)	EL 5-2763
	WB	(504)	357-9943◆
Lafayette LFT	FSS		CE 5-3752
	WB		234-1220◆
Lake Charles LCH	FSS	(318)	477-1784▬
	WB	(318)	477-5227◆
Monroe MLU	FSS	(318)	322-3157
New Orleans MSY	FSS	(504)	943-5535
	WB	(504)	523-4311★
	WB	(504)	729-2520◆
Shreveport SHV (Greater Shreveport)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141◆

MAINE

Augusta AUG (State)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton HUL (Memorial International) DF	FSS	(207)	532-2475
Millinocket MLT	FSS	(207)	723-8343
Old Town OLD	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland PWM	FSS	(207)	SP 5-0602
	WB	(207)	775-3071◆

MARYLAND

Baltimore	WB	(301)	761-1333◆
	WB	(301)	766-0757★
Salisbury SHV (Salisbury-Wicomico)	FSS	(301)	742-7324

MASSACHUSETTS

Boston BOS (Logan)	FSS	(617)	LO 7-0099▬
	FSS	(617)	LO 7-0015▬
	WB	(617)	569-1773★
Nantucket ACK DF	FSS	(617)	228-0815▬
	WB	(617)	228-0971
Worcester ORH	FSS	(617)	PL 5-6083
	WB	(617)	798-2124◆ (0600-2200)

MICHIGAN

Location and Identifier		Area Code	Telephone
Alpena	WB	(517)	354-8733◆ (0645-1915)
Battle Creek BTL (Kellogg)	FSS	(616)	2-7878
Detroit DTW (City)	FSS	(313)	372-3737
	WB	(313)	274-5310★
	WB	(313)	278-7340◆
Detroit (Willow Run)	WB	(313)	482-5001◆
Flint FNT (Bishop)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987◆
Grand Rapids GRR (Kent County)	FSS	(616)	949-4090
	WB	(616)	949-4251◆
Houghton HTL (Houghton County)	FSS	(906)	482-0380
Houghton Lake (Roscommon County)	WB	(517)	366-5392
Jackson JXN (Reynolds Mun.)	FSS	(517)	ST 4-9640
Lansing LAN (Capital City)	FSS	(517)	482-9237
	WB	(517)	489-4603◆
Marquette MQT	FSS	(906)	GR 5-4197
	WB	(906)	226-8642◆ (0500-2100)
Muskegon MKG (Muskegon County)	FSS	(616)	798-1222
	WB	(616)	798-3048
Pellston PLN (Emmet County)	FSS	(616)	LE 9-8401
Saginaw MBS (Tri City) DF	FSS	(517)	OX 5-6621
Saulte Ste Marie SSM	FSS	(906)	632-8271
	WB	(906)	632-9461
Traverse City TVC	FSS	(616)	947-5056
Ypsilanti	WB	(313)	482-5001

MINNESOTA

Alexandria AXN	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982◆
Hibbing HIB (Chisholm-Hibbing)	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis MSP St. Paul Intl	FSS	(612)	PA 9-9386
(Wold-Chamberlain) DF	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429◆
	WB	(612)	729-9339★
Redwood Falls RWF	FSS	(507)	637-8530
Rochester RST	FSS	(507)	289-1579▬
St. Cloud	WB	(612)	251-3213 (0400-2200)
St. Paul (See: Minneapolis)			

MISSISSIPPI

Greenwood GRW	FSS	(601)	GL 3-2631
Jackson JAN (Thompson Field)	FSS	(601)	939-5212
	WB	(601)	939-5881◆

MISSISSIPPI (Con't.)

Location and Identifier			Area Code	Telephone
McComb MCB (Pike County)		FSS	(601)	684–7070
Meridian MEI (Key Field)		FSS	(601)	482–1243
		WB	(601)	483–3725◆
Vicksburg		WB	(601)	636–1193 (0630–1530 Mon–Fri) (0630–1130 Sat, Holidays) (clsd Sunday)

MISSOURI

Location and Identifier			Area Code	Telephone
Cape Girardeau GGI		FSS	(314)	ED 4–2803
Columbia CBI		FSS	(314)	449–1136/7
		WB	(314)	443–4332
Joplin JLN		FSS	(417)	MA 3–6868
Kansas City MKC		FSS	(816)	GR 1–5484▬
		WB	(816)	471–2131★
Kirksville IRK		FSS	(816)	MO 5–4132
St. Joseph STJ (Rosecrans Memorial)		FSS	(816)	BR 9–2394
St. Louis STL (Lambert)		FSS	(314)	PE 1–0900
		WB	(314)	731–3001◆
		WB	(314)	PE 1–3004★
		WB	(314)	848–3303★ (Hazlewood)
Springfield SGF	DF	FSS	(417)	862–3588▬
Vichy VIH (Rolla National)		FSS	(314)	AX 9–3677

MONTANA

Location and Identifier			Area Code	Telephone
Billings BIL (Logan Field)	DF	FSS	(406)	259–4545▬
Bozeman BZN (Gallatin Field)		FSS	(406)	586–6520
Butte BTM (Silver Bow)		FSS	(406)	723–3004
Cut Bank CTB		FSS	(406)	938–4522
Dillon DLN		FSS	(406)	683–5651
Glasgow Intl		WB	(406)	228–8395 (0300–2400)
Great Falls GTF (International)		FSS	(406)	452–6495
		WB	(406)	453–3512◆
Havre		WB	(406)	265–6424 (0430–1315)
Helena HLN		FSS	(406)	442–9902
		WB	(406)	442–8260
Kalispell		WB	(406)	756–4829
Lewistown LWT		FSS	(406)	538–3639
Livingston LVM (Mission Field)		FSS	(406)	222–2411
Miles City MLS	DF	FSS	(406)	232–1503
Missoula MSO (Missoula City)		FSS	(406)	542–2230
		WB	(406)	543–7996◆

NEBRASKA

Location and Identifier			Area Code	Telephone
Chadron CDR		FSS	(308)	HE 2–3153
Grand Island GRI		FSS	(308)	382–5196
		WB	(308)	384–1907
Imperial IML		FSS	(308)	TU 2–4887
Lincoln LNK (Mun/AFB)		FSS	(402)	477–3929▬
Norfolk		WB	(402)	371–3386 (0530–2130)
North Plate LBF (Lee Bird)		FSS	(308)	LE 2–4034▬
Omaha OMA (Eppley)		FSS	(402)	341–6178▬
		WB	(402)	342–3603★
Scottsbluff BFF		FSS	(308)	635–2615
		WB	(308)	632–6822
Sidney SNY		FSS	(308)	254–3130
Valentine		WB	(402)	376–3442

NEVADA

Location and Identifier			Area Code	Telephone
Elko EKO		FSS	(702)	738–6506▬
Ely ELY (Yelland Filed)		FSS	(702)	264–2045
		WB	(702)	264–2403
Las Vegas LAS (McCarran)		FSS	(702)	736–1573/4▬
Lovelock LOL (Derby Field)	DF	FSS	(702)	CR 3–2448
Reno RNO		FSS	(702)	784–5414
		WB	(702)	784–5402◆
Tonopah TPH (Nye County)		FSS	(702)	482–6421
Winnemucca		WB	(702)	623–2203

NEW HAMPSHIRE

Location and Identifier			Area Code	Telephone
Concord CON		FSS	(603)	224–7474▬
Lebanon LEB (Regional)		FSS	(603)	298–8360

NEW JERSEY

Location and Identifier			Area Code	Telephone
Atlantic City		WB	(609)	641–4327◆
Millville MIV		FSS	(609)	825–1173
Newark		WB	(201)	624–8118 624–7272★ (Via New York)
Teterboro TEB		FSS	(201)	288–9092

NEW MEXICO

Location and Identifier			Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)		FSS	(505)	243–7831▬
		WB	(505)	242–2661★
Carlsbad CNM		FSS	(505)	TU 5–2042
Clayton		WB	(505)	374–9511 (0430–1130 Mon–Fri) (0430–0930 Sat)

NEW MEXICO (Con't.)

Location and Identifier		Area Code	Telepone
Deming DMN	FSS	(505)	546-2726
Farmington FMN DF	FSS	(505)	DA 5-9271
Grants GNT	FSS	(505)	AT 7-3011
Hobbs HOB (Lea County)	FSS	(505)	EX 3-3222
Las Vegas LVS	FSS	(505)	GA 5-7411
Raton	WB	(505)	445-3891 (0545-1225)
Roswell ROW	FSS	(505)	622-6780▬
Santa Fe SAF	FSS	(505)	YU 3-6581
Silver City	WB	(505)	538-9023 (0530-2000 Mon-Fri)
Truth or Consequences TCS DF	FSS	(505)	894-3277
Tucumcari TCC	FSS	(505)	461-2900
Zuni ZUN	FSS	(505)	782-3770

NEW YORK

Location and Identifier		Area Code	Telepone
Albany ALB (Albany County)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173◆
Binghamton BGM (Broome County)	FSS	(607)	RA 9-6145
	WB	(607)	797-0784◆
Buffalo BUF (Greater Buffalo)	FSS	(716)	NF 2-6083▬
	WB	(716)	632-5042★
Elmira ELM (Chemung County)	FSS	(607)	RE 9-2471
Glens Falls GFL (Warren County)	FSS	(518)	RX 3-2593
Islip ISP (Long Island MacArthur) DF	FSS	(516)	JU 8-1061
(New York)	FSS	(914)	723-4330
	FSS	(212)	995-8657
Massena MSS	FSS	(315)	RO 9-2033
New York JFK (John F. Kennedy Intl)	IFSS	(212)	995-8659
	WB	(212)	656-7474★
New York (John F. Kennedy Intl and LaGuardia)	WB	(212)	995-9151◆
Poughkeepsie POU (Dutchess County)	FSS	(914)	462-3400
Rochester ROC (Monroe County)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391◆
Syracuse SYR (Hancock)	FSS	(315)	GL 4-2479
	WB	(315)	454-1214◆
Utica UCA (Oneida)	FSS	(315)	RE 6-9023
Watertown ART	FSS	(315)	NE 9-3321

NORTH CAROLINA

Location and Identifier		Area Code	Telepone
Asheville AVL	FSS	(704)	684-4401
	WB	(704)	684-6906◆
Cape Hatteras	WB	(919)	995-2321
Charlotte	WB	(704)	399-6000◆
Durham	WB	(919)	596-2326
Elizabeth City ECG (Coast Guard Air Station)	FSS	(919)	338-3808
Fayetteville FAY (Grannis Field)	FSS	(919)	483-7904
Greensboro	WB	(919)	299-9499◆
Hickory HKY	FSS	(704)	DA 7-8281

NORTH CAROLINA (Con't.)

Location and Identifier		Area Code	Telephone
High Point	WB	(919)	883-1927 (Answered in Greensboro)
New Bern EWN (Simmons-Nott)	FSS	(919)	ME 7-2080
Raleigh-Durham RDN	FSS	(919)	787-4289
	WB	(919)	787-4092◆ 596-2446 (Durham Exchange) 275-6341 (Greensboro Exchange)
Rocky Mount RMT	FSS	(919)	446-6637
Wilmington ILM (New Hanover County)	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	725-1731
	WB	(919)	724-2208◆

NORTH DAKOTA

Location and Identifier		Area Code	Telephone
Bismarck BIS	FSS	(701)	CA 3-8790
	WB	(701)	223-0920◆
Dickinson DIK	FSS	(701)	224-2989
Fargo FAR (Hector)	FSS	(701)	AD 5-8894
	WB	(701)	232-1584◆
Grand Forks GFK (International) DF	FSS	(701)	772-7201
Jamestown JMS	FSS	(701)	CL 2-4350
Minot MOT (International)	FSS	(701)	833-8112
Williston	WB	(701)	572-3198◆ (0445-2045)

OHIO

Location and Identifier		Area Code	Telephone
Akron ACO	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246◆
Canton	WB	(216)	499-7933◆
Cincinnati CVG (Lunken)	FSS	(513)	321-1434
	WB	(513)	381-2300★
	WB	(513)	381-6706◆
(Greater Cincinnati)	WB	(513)	684-2129◆
	WB	(606)	283-3696◆
Cleveland CLE (Hopkins)	FSS	(216)	267-0149▬
	WB	(216)	267-3410★
Columbus CMH	FSS	(614)	237-8478▬
Dayton DAY	FSS	(513)	898-4639
	WB	(513)	898-4620◆ (Vandalia Exchange)
Findlay FDY	FSS	(419)	GA 2-3237
Mansfield MFD	FSS	(419)	524-5323
	WB	(419)	522-7070 (0600-1800)
Toledo TOL (Express)	FSS	(419)	242-4171
	WB	(419)	385-4921◆
Youngstown YNG	FSS	(216)	539-5121
	FSS	(216)	856-4806
	WB	(216)	545-2447◆
Zanesville ZZV	FSS	(614)	452-8611

OKLAHOMA

Location and Identifier			Area Code	Telephone
Ardmore ADM		FSS	(405)	CA 3–6772
		FSS	(405)	DU 9–5441
Gage GAG	DF	FSS	(405)	923–2601
Hobart HBR		FSS	(405)	GE 6–4234
McAlester MLC	DF	FSS	(918)	GA 3–4091
Oklahoma City OKC (Will Rogers)		FSS	(405)	SU 9–7452
		WB	(405)	685–4433★
		WB	(405)	685–6350◆
(Answered personally after PATWAS message.)				
Ponca City PNC		FSS	(405)	RO 5–5485
Tulsa TUL		FSS	(918)	TE 8–3316
		WB	(918)	835–2364★

OREGON

Location and Identifier			Area Code	Telephone
Astoria		WB	(503)	861–2722
Baker BKE		FSS	(503)	523–2961
Eugene EUG (Mahlon-Sweet)		FSS	(503)	343–7738
		WB	(503)	344–0141◆
Klamath Falls LMT (Kingsley Field)		FSS	(503)	TU 4–8223
		WB	(503)	882–5060 (0800–1600)
Meacham		WB	(503)	Meacham 2 (0700–1500)
Medford MFR	DF	FSS	(503)	779–3241
		WB	(503)	773–1525◆
North Bend OTH		FSS	(503)	756–4916
Pendleton PDT		FSS	(503)	276–1761
		WB	(503)	276–1852
Portland PDX (International)		FSS	(503)	AT 2–7293▬
		WB	(503)	282–2285★
Redmond RDM (Roberts Field)	DF	FSS	(503)	548–2522
Salem		WB	(503)	363–6151
The Dalles DLS		FSS	(509)	PO 7–1187

PENNSYLVANIA

Location and Identifier			Area Code	Telephone
Allentown ABE (Bethlehem-Easton)		FSS	(215)	264–4539
		WB	(215)	264–2241
Altoona AOO (Blair)		FSS	(814)	793–3113
Bradford BFD (Bradford-McKean)		FSS	(814)	362–8860
DuBois DUJ		FSS	(814)	328–2231
Erie ERI (Port Erie)		FSS	(814)	833–1345
		WB	(814)	833–1991◆
Harrisburg HAR (Harrisburg-York State)		FSS	(717)	233–5987
		WB	(717)	233–7315◆

PENNSYLVANIA (Con't.)

Location and Identifier			Area Code	Telephone
Philadelphia PNE (N. Philadelphia)	DF	FSS	(215)	OR 3–8020
		WB	(215)	726–7511◆
		WB	(215)	726–3503★ (0600–2300)
Philipsburg PSB (Mid-State)	DF	FSS	(814)	342–0830
Pittsburgh AGC (Allegheny)		FSS	(412)	461–8250
		WB	(412)	462–5585★
		WB	(412)	462–5586★
Pittsburgh (Greater Pittsburgh)		WB	(412)	771–2855◆
Reading (General Spaatz Fld)		WB	(215)	376–4103◆ (0800–0900 Sun, 0700–noon Sat) (0700–1630 Mon–Fri)
Scranton		WB	(717)	457–5650◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)		FSS	(717)	457–9600
		WB	(717)	457–5650◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)		FSS	(717)	368–8547
		WB	(717)	368–1866◆

RHODE ISLAND

Location and Identifier			Area Code	Telephone
Providence PVD (Green)		FSS	(401)	RE 7–5300
		WB	(401)	737–0051◆

SOUTH CAROLINA

Location and Identifier			Area Code	Telephone
Anderson AND		FSS	(803)	225–7501
		FSS	(803)	225–5031◆
Charleston CHS		FSS	(803)	747–5293▬
		WB	(803)	747–5778★
Columbia		WB	(803)	794–4054◆
✓Crescent Beach MBC (Myrtle Beach)		FSS	(803)	448–7187 (0800–2000) (Other hrs Florence)
Florence FLO		FSS	(803)	662–8197
Greer GSP (Greenville)	DF	FSS	(803)	Greenville 239–3738▬ Spartanburg 585–5470

SOUTH DAKOTA

Location and Identifier			Area Code	Telephone
Aberdeen ABR		FSS	(605)	225–5264▬
Huron HON (W. W. Howes)		FSS	(605)	352–3806▬
Pierre PIR		FSS	(605)	224–5894
Rapid City RAP	DF	FSS	(605)	FI 2–2280
		WB	(605)	342–1160 (0200–2300 daily)

SOUTH DAKOTA (Con't)

Location and Identifier		Area Code	Telephone
Sioux Falls FSD (Joe Foss Fld)	FSS	(605)	ED 8-4841
	WB	(605)	338-1441 ◆
Watertown ATY	FSS	(605)	TU 6-4581

TENNESSEE

Location and Identifier		Area Code	Telephone
Blountville	WB	(615)	323-8752 ◆
Bristol	WB	(615)	323-8242 ◆
Chattanooga	WB	(615)	892-3747 ◆
Crossville CSV (Crossville-Cumberland) DF	FSS	(615)	484-6711
Dyersburg DYR	FSS	(901)	285-4842
			(0600-2200)
Jackson JKS (McKeller)	FSS	(901)	427-0611
Johnson City	WB	(615)	323-8242
Kingsport	WB	(615)	323-8242 ◆
Knoxville TYS (McGhee-Tyson)	FSS	(615)	577-0795
	WB	(615)	577-4805 ◆
(from Maryville)		(615)	982-3682
Maryville (See Knoxville)			
Memphis MEM DF	FSS	(901)	398-9260/9
	WB	(901)	398-2347 ★
Nashville BNA (Metropolitan)	FSS	(615)	254-6552/3
	WB	(615)	255-8732 ★
	WB	(615)	256-4468 ◆
Tri City TRI	FSS	(615)	323-7242

TEXAS

Location and Identifier		Area Code	Telephone
Abilene ABI	FSS	(915)	OR 4-6915▬
Alice ALI	FSS	(512)	MO 4-4291
Amarillo AMA (Air Terminal)	FSS	(806)	349-1608▬
Austin AUS (Robert Mueller)	FSS	(512)	GR 8—6695
	WB	(512)	476-8554
Beaumont BPT (Jefferson County)	FSS	(713)	RA 2-0288
	WB	(713)	722-7011 ◆
Brownsville BRO (Rio Grande Valley International)	FSS	(512)	LI 6-6421
	WB	(512)	542-8231 ◆
Childress CDS	FSS	(817)	WE 7-3892
College Station CLL (Easterwood)	FSS	(713)	VI 6-8784/5
Corpus Christi	WB	(512)	883-3008 ◆
Cotulla COT	FSS	(512)	TR 9-2417
Dalhart DHT	FSS	(806)	CH 9-2006
Dallas Love Field DAL	FSS	(214)	FL 2-8491▬
	WB	(214)	FL 7-4343 ★
Del Rio	WB	(512)	775-2115
El Paso ELP (International)	FSS	(915)	778-6449
	FSS	(915)	778-6448▬
	WB	(915)	778-4487 ★

TEXAS (Con't.)

Location and Identifier		Area Code	Telephone
Fort Worth FTW (Meacham)	FSS	(817)	MA 4-8471
	WB	(817)	283-1571 ★
	WB	(817)	283-3961 ◆
Galveston GLS (Scholes)	FSS	(713)	SH 4-3255
	WB	(713)	763-5670
Gregg County GGG (Longview)	FSS	(214)	MI 3-2612
Houston HOU (International)	FSS	(713)	MI 5-6693▬
	WB	(713)	644-1507 ★
✓Junction JCT (Kimble Co.)	FSS	(915)	HI 6-3214
			(0600-1800)
			(Other hrs San Antonio)
Lubbock LBB	FSS	(806)	PO 2-5802
	WB	(806)	762-2380 ◆
Lufkin LFK (Angelena County) DF	FSS	(713)	NE 4-3544
McAllen MFE (Miller Field)	FSS	(512)	MU 2-2878/9
Midland MAF (Air Terminal)	FSS	(915)	563-2611▬
Mineral Wells MWL	FSS	(817)	FA 5-5922
Palacios PSX	FSS	(713)	824-2218
Port Arthur	WB	(713)	722-7011 ◆
San Angelo SJT (Mathis)	FSS	(915)	655-5638
	WB	(915)	655-9780 ◆
San Antonio SAN (International)	FSS	(512)	TA6-9575▬
Tyler TYR (Pounds)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	445-1276 ◆
Waco ACT	FSS	(817)	PL 2-4811
	WB	(817)	754-1582 ◆
Wichita Falls SPS Sheppard AFB/Wichita Falls Air Trml	FSS	(817)	322-2011▬
Wink INK DF	FSS	(915)	LA 7-3351

UTAH

Location and Identifier		Area Code	Telephone
Bryce Canyon BCE	FSS	(801)	834-5311
Cedar City CDC DF	FSS	(801)	JU 6-9131
✓Delta DTA	FSS	(801)	4741
			(0600-1800)
			(Other hrs Salt Lake City)
Milford	WB	(801)	387-2361
			(0900-1700)
Ogden	WB	(801)	399-5806
Salt Lake City SLC (Municipal No. 1) DF	FSS	(801)	524-5183▬
	FSS	(801)	364-5571 ★
	WB	(801)	364-5571
Wendover	WB	(801)	665-2382
			(0430-2015)

VERMONT

Location and Identifier		Area Code	Telephone
Burlington	WB	(802)	862-2475
			(0600-2300)
Montpelier MPV (Barre-Montpelier)	FSS	(802)	223-2376
	FSS	(802)	878-3393
			(from Burlington)

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

Location and Identifier			Area Code	Telephone
VIRGINIA				
Blackstone BKT		FSS	(703)	292–3826 (0600–2200)
Bristol		WB	(615)	323–8242◆
Chantilly (Dulles)		WB	(703)	661–8526◆
Charlottesville CHO (Charlottesville/ Albermarle)		FSS	(703)	973–3909
Danville DAN		FSS	(703)	SW 3–1163
Lynchburg (Muni-Preston Glenn		WB	(703)	239–0345◆ (0600–1930)
Newport News PHF (Patrick Henry)		FSS	(703)	877–0200
Norfolk		FSS	(703)	627–7084▬
Richmond RIC (Byrd Flying Field)		FSS	(703)	737–5249▬
Roanoke ROA (Woodrum)		FSS	(703)	362–1668▬
WASHINGTON				
Bellingham BLI	DF	FSS	(206)	734–6400
Ephrata EPH		FSS	(509)	SK 4–2361
Hoquiam HQM (Bowerman)		FSS	(206)	GE 9–3432
Olympia		WB	(206)	357–8386
Seattle SEA (Boeing)		FSS	(206)	RO 2–4000
		WB	(206)	682–3655★
Spokane SFF (Felts)		FSS	(509)	KE 5–2906
		WB	(509)	624–5674◆
Toledo TDO (Toledo-Winlock)		FSS	(206)	864–2371 (0500–2100)
Walla Walla ALW (City-County)		FSS	(509)	JA 9–1413
Wenatchee EAT (Pangborn)		FSS	(509)	TU 4–5654
Yakima YKM		FSS	(509)	GL 3–9862
		WB	(509)	GL 7–4371
WEST VIRGINIA				
Beckley		WB	(304)	252–3171◆
Bluefield BLF (Mercer County)		FSS	(304)	325–6521
Charleston CRW (Kanawha)		FSS	(304)	342–1371▬
Elkins EKN (Randolph)		FSS	(304)	636–0810
		WB	(304)	636–1246◆
Huntington HTS (Tri-State)		FSS	(304)	453–3951▬
Martinsburg MRB		FSS	(304)	AM 3–9353

Location and Identifier			Area Codes	Telephone
WEST VIRGINIA (Con't.)				
Morgantown MGW	DF	FSS	(304)	292–3632
Parkersburg PKB (Wood County)		FSS	(304)	485–6421
		WB	(304)	422–3661 (0700–1400 Mon-Fri) (0700–1200 Sat)
Wheeling HLG (Ohio County)		FSS	(304)	CR 7–1252
WISCONSIN				
Eau Clare EAU		FSS	(715)	835–9642
Green Bay GRB (Austin Straubel)	DF	FSS	(414)	494–7417▬
La Crosse LSE		FSS	(608)	785–1225▬
Lone Rock LNR (Tri-County)		FSS	(608)	583–2661
Madison MSN (Traux)		FSS	(608)	244–1033
		WB	(608)	249–6644◆
Milwaukee MKE (General Mitchell)		FSS	(414)	481–4414
		FSS	(414)	481–6116
		WB	(414)	744–7810★
		WB	(414)	744–5860◆
Wausau AUW		FSS	(715)	845–7396
WYOMING				
Casper CPR (Air Terminal)	DF	FSS	(307)	234–5053
		WB	(307)	234–1201◆
Cheyenne CYS		FSS	(307)	638–9711
		WB	(307)	638–3642◆
Lander		WB	(307)	332–2718
Laramie LAR (General Brees Field)		FSS	(307)	745–4010
Rawlins RWL		FSS	(307)	324–3241
Rock Springs RKS	DF	FSS	(307)	362–2121
Sheridan SHR (Sheridan County)		FSS	(307)	674–7426▬
Worland WRL	DF	FSS	(307)	347–4122
PUERTO RICO				
San Juan SJU (Puerto Rico Intl)		IFSS		791–1780
		WB		791–0320
VIRGIN ISLANDS				
St. Croix STT (Christiansted, Alexander Hamilton)		FSS		773–1425

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Indicate Appropriate Part. Date ______________________________

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3–A, Notices to Airmen

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AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE 1966–67

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Part

Effective Date	Part 1	Part 2	Part 3	Part 3A
June 9				May 27
June 23			June 6	June 6
July 7				June 27
July 21			July 1	July 1
August 4				July 25
August 15	July 15			
August 18			August 1	August 1
September 1				August 22
September 15			August 29	August 29
September 29				September 19
October 13			September 26	September 26
October 27				October 17
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12
January 5			December 16	December 16
January 19				January 9
February 2			January 16	January 16
February 15	January 20			
February 16				February 6
March 2			February 10	February 10
March 16				March 6
March 30			March 13	March 13
April 13				April 3
April 27			April 10	April 10
May 11				May 1

Editorial Staff Telephone Number, Area Code 202—WO 2–4063.

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930–1730 Sun. Up to 12,500′.

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Gadsden:1000–1700 Weekends. Up to 12,500′.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500′.

ARIZONA

Chandler:090–1700 weekends. Up to 12,500′.

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800–1700. Up to 12,500′.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000′.

ARKANSAS

Ashdown: Weekends. 1200 to SS. Up to 12,500′. (Mostly in summer mos.)

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Fayetteville: 6 mi N Drake Arpt. Mon thru Fri 1900Z–SS. Sat, Sun, Holidays 1400Z–SS. Up to 12,500′.

Jonesboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200–SS. Up to 12,500′.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500′.

Avenal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0800Z occasional jumps week days 0000–0300Z; up to 10,000′.

Black Point: Sky diving weekends up to 12,500′.

Black Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500′ MSL.

California City Arpt: NW of fld. Dalgt weekends and holidays. Up to 20,000′ MSL.

Calistoga Arpt: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

Clay: 4 NM N. 1600–0800GMT daily. Up to 3000′.

Clear Lake: Into Clear Lake at 39°05′N, 122°51′W. Mon thru Sat. Up to 4400′ MSL.

Davis, Yolo Co. Intl Arpt: 800′ E of apch end rnwy 36. Daily, SR-SS. Up to 12,500′ MSL.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000′ MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800′–15,000′, opening at absolute alts of 2000′–2500′. Center of drop zone lctd at 36°38′N, 121°46′W in Restricted Area R–2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000′.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,500′.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000′.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500′ MSL.

Imperial Beach: Weekends. 0800–1200. Up to 1500′.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000′ MSL.

Lake Berryessa: Lat 38°31′, 122°12′. Mon thru Sat. Up to 2000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld. 7 days a wk. SR–SS.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends and holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy btn Linden and Sacramento VORs. Up to 9,500′.

Los Banos Arpt: 3.5 mi SE; edge of V–113. Suns SR–SS. Up to 10,000′.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000′ MSL.

Milpitas, King Skylanes Arpt: 8 mi E; Weekends. From 12,500′.

Ojai, Henderson Arpt: Weekends from 14,000′ MSL 8 mi SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500′ MSL. Weekends and holidays.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000′ MSL.

Piru: Tues-Fri. 2 mi E. Up to 14,500′.

San Diego, Brown Fld: NW corner of fld. Weekdays, morning hrs. Up to 15,000′.

San Diego—County Arpt (Gillespie Fld): Up to 20,000′ MSL, chute opening alt aprxly 2700–3000′ MSL in vcnty of arpt.

San Diego, Otay Reservoir: Weekdays and ngts. Up to 15,000′.

San Diego Co.: 5 mi ESE Brown Fld, adj Mexico. Weekdays and ngts. Up to 15,000′.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000′.

Sonoma Valley: Weekends (occansionally during the wk.) 0800–SS. Up to 15,000′.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Dayigt hrs. Up to 8,000′.

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Suns and holidays. Up to 18,500′ MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 and 20,000′ AGL.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 18,000′ MSL.

Denver: 2.5 mi SE of Cherry Creek Dam. 0800–SS, weekends, and holidays. Up to 15,000′ MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays. Dalgt hrs. Up to 13,000′.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Littleton, Columbine Arpt: 2 mi S. Up to 13,500′ AGL.

Longmont Mun Arpt: Weekends and holidays up to 15,000′.

Sedalia, Littleton Arpt: Weekends and holidays. Up to 14,500′ MSL.

CONNECTICUT

Bethany: Weekends and Wed (P.M.). 0800–SS. Up to 12,500′.

Burlington, Johhnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200–SS. Up to 12,500′.

Harwinton: 0800–dusk. Weekends. Up to 7200′.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Buchan Arpt: 7 mi S of Venice. Weekends and holidays. Up to 15,500′.

Clewiston, Airglades Arpt: Up to 12,000′.

Deland Mun Arpt: Up to 7,000′ daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500′.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

Gainesville: Weekends 0800–1600. Up to 9,600′. Up to 12,000′.

Homestead AFB: Occasionally. Up to 1,000′ MSL.

Howey Arpt: Weekends. Up to 10,000′.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800–1600. Up to 15,000′. (2) 2 mi NW of Herlong Fld. Weekends. 0800–1600. Up to 7,500′.

Kissimmee Arpt: Daily and weekends. Up to 12,000′.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500′.

Palatka: Suns. 0800–1600. Up to 7500′.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.

Santa Rosa Island: Daily. Up to 12,500′.

Umatilla Arpt: 32 NM 325° rad. Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.

Venice Arpt: 7 mi S. Weekends and holidays. Up to 15,500′.

Zephyrhills Ahpt: Sundays, occasionally weekdays. Up to 12,500′.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500′ AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500′.

Cohutta: 10 mi N Dalton. Weekends. 1200–1900. Up to 13,500′.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500′.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

Fitzgerald: Daily, mostly on Sats and Suns. 0900–1700. Up to 12,500′.

Fort Benning: Daily. 0600–2000. Up to 18,000′.

Ft. Steward: Daily, Sats and Suns. Up to 15,000′.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935′ MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000′.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

Waycross: Weekends. 1000–1600. Up to 12,500′.

IDAHO

Weiser: 1500Z–SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.

Alton, Civic Meml Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.

Antioch: 3 mi N.

Breese Arpt: ½ mi N. Up to 7,000′.

Chicago, Hammond Arpt: Weekends. Up to 12,500′.

Clinton: ½ mi E. Weekends. 1200–SS. Up to 10,000′.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

Dixon, Walgren Meml Arpt: Weekends, holidays and occasionanl weekdays. 0900—SS. Up to 10,000′.

Hebron Arpt: Daily.

Hillsboro: 8 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

O'Fallon: N on edge of town. Weekends. 1200–1800. Up to 7500′.

Pekin: 3 mi S. Weekends. 1200–SS. Up to 15,000′.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500′.

Springfield: Weekends. 1200–SS. Up to 10,000′.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500′.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500′.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

Shelbyville: 5 mi N. Wed, Sat and Sun. 1000–SS. Up to 15,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.

Des Moines: Between Camp Dodge and Johnston Station. Thurs and Sun. 1300–SS.

Mechanicsville: 5S, 2 mi radius. Weekends and occasionally wk days SR–SS. Up to 15,000′.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

Northwood: Weekends. 0900–SS. Up to 13,000′.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500′.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000′.

KANSAS

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000′.

Fort Leavenworth Military Reservation: Weekends and holidays. Occasionally weekdays. Up to 12,500′.

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Junction City Mun Arpt: Suns 1400Z–SS. Up to 13,700′.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500′.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000′. Occasionally ngts.

Oxford: Weekends. 1300–1900. Up to 13,000′.

KENTUCKY

Ashland, Boyd Co.: Wed and wkends.

Fort Knox: 3 mi SW of Godman AAF weekends and holidays. 1300–1700. Up to 10,000′.

Greenville-Muhlenberg Co. Arpt: Suns and holidays 0700–SS. Up to 12,500′.

LOUISIANA

Abbeville: Weekends. 0900–SS. Up to 17,000′.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500′.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900–SS. Up to 12,000′.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.

Fort Polk, Polk AAF: 2 nmi radius.

Thibodaux: 1 mi E on Hwy 1. Weekends. 0900–SS. Up to 13,000′. 20 mis N. Weekends. SR–SS. Up to 12,500′.

Youngsville: Weekends. 0900–SS. Up to 13,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland Mun: Up to 12,000′.

Edgewood: 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.

Eldersburg, Robert E. Lee Arpt: 8 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

Frederick Mun: Glider activities wkends and holidays.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

Patuxent River NAS: On V–213. 2200–2400 weekdays; 1500–2100Z Sat, Sun and holidays. Up to 12,500′.

Stevensville, Carroll's Arpt: Weekends. Up to 12,500′.

MASSACHUSETTS

Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up to 13,500′ MSL, lat 42°28′, long 71°42′.

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Day time only. Up to 15,000′.

Orange Muni Arpt: Day time only. Up to 15,000′.

Pepperell Arpt: Day time only. Up to 15,000′.

Tauton Muni Arpt: Day time only. Up to 15,000′.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500′.

E. Tawas, Iosco Arpt: Up to 13,500′.

Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500′.

Gaylord: Weekends. Dawn-Dusk. Up to 12,500′.

Grand Rapids (So. Kent Fld): Weekends. 0900–dusk. Up to 12,000′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Lake City: 6mi E, 1 N. Weekends. SR–SS. Up to 12,500′.

LaSalle: 5 mi S of Custer Arpt. 0900–SS. Up to 12,500′.

Marksfield, Lawton: Sat and Sun. 0900–SS. Up to 15,000′.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Midland: Sat, Sun, Wed. SR–SS. Up to 12,500′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

Nunica: 1 mi SE. Up to 15.000′.

Saginaw Arpt: Weekends. Up to 18,000′.

Saline Arpt: 1 mi SW. 0800 to SS Sats and Suns, and holidays. Up to 18,000′.

Tecumseh Arpt: Daily. Up to 17,500′.

Traverse City: Weekends. SR–SS. Up to 12,500′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Monticello, Flynn Arpt: Wk-end. Up to 12,000′ AGL.

Rosemount: 3 mi SE. Up to 2500′.

Stanton, Carleton Arpt: Wed 1600–SS during June; July and Aug wk-ends 0800–SS. Up to 14,500′ AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000′.

Hattiesburg: During the week. SR–SS. Up to 12,500′.

Jackson: 10 mi SW. 0900–SS. Weekends. Up to 12,500′.

Louisville: 5 mi S. Weekends. Up to 12,500′.

Lucedale, Formco Arpt: Weekends. Up to 12,000′.

Ocean Springs, Gulfpark Arpt: SR–SS Sats, Suns, holidays and occasional wk days. Up to 12,500′ AGL.

MISSOURI

Chesterfield: Weekends. Up to 10,000′.

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lebmaster Arpt: Weekends and holidays. Up to 11,000′.

Valleroy: Weekends. 1200–1800. Up to 8000′.

Vichy, Rolla Natl Arpt: Daily SR–SS. Up to 12,500′.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800–dusk. Up to 10,000′.

Glendive: Sat and Sun, occasionally wk days.

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Kalispell: Weekends. 0700–2000. Up to 10,000′.

Laurel: Sat, Sun. 0900–1800. Up to 10,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500′ MSL.

Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500′.

NEW HAMPSHIRE

Antrim Feather Air Park: Weekends. Dawn-dusk. Up to 12,600′.

Hollis: 3 mi SW Boric Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600′.

Hoodsett: Tues, Sat Sun, and holidays. 0900–2100. Up to 12,500′.

Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900–dusk. Up to 5,200′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500′.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

Manville, Decker Arpt: ½ mi SW rnwy. Dawn to dusk. Up to 15,000′.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500′.

NEW MEXICO

Alamogordo Mun Arpt: Dalgt hrs Fri, Sat, Sun. Up to 16,000′ MSL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000′.

Belen: 3 to 5 mi SE. Weekends and holidays. Up to 18,000′.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.

Greene Arpt: Within 5 mi radius. Daily 1100Z–SS. Up to 12,500′.

Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. Up to 13,000′ AGL.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500′.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MSL.

Randolph Arpt: Daily. Up to 15,000′.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000′.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500′ MSL

Wallkill (Galesville): Every day of wk. 1000–2130. Up to 14,000′.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500′.

Charlotte, Brockenborough Arpt: 5 mi N. Daily 0800–dusk. Up to 14,000′.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900–1630. Up to 13,000′.

New River MCAF: On V157 1100–0300 daily from 23,500′.

Oak Grove OLF: Sat, Sun and holidays from 0800–1830. Up to 15,000′.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000′.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12,000′.

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

Ada Arpt: 2 mi N. Weekends 1400–2300Z. Up to 9500′ AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000′.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500′.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000′.

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000′.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500′ AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.

Galloway, Columbus Arpk: Wkends, holidays dalgt hrs and Wed 1600–SS.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.

Lenox Arpt: Sat and Sun. 0900 2100 EDST. Up to 12,500′.

Lima: Weekends. 1200–SS. Up to 12,500′.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000′ MSL.

Oberlin: Fri. 1600–dark. Up to 12.500′.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500′ AGL.

Piqua Arpt: Up to 12,000′. Daily.

Roundhead: Weekend. 1200–SS. Up to 12,500′.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500′.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500′.

South Dayton Arpt: Up to 18,000′. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.

●**Valley City:** 3.5 mi W. Wed 2200–0100Z. Up to 12,500′ AGL.

Van Wert: Mon-Fri 2100Z–SS; Sat, Sun SR-SS. Up to 12,500′ AGL.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Claremore: Weekend. 0800–SS. Up to 12,500′.

Dewey: Weekends. 0800–SS. Up to 12,500′.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500′.

Frederick: Weekend. Dawn-dusk. Up to 10,000′.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stillwater: 5 mi W. Weekend. 0800–SS. Up to 12,500′.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Albany: 1½ mi SE of arpt. Weekends. 1000–SS. Up to 13,000′ MSL.

Ashland Arpt: Dalgt. wk ends, holidays and evenings. Up to 9,000′.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

●**Cave Junction, Illinois Valley Airstrip:** 1 mi N and 3 mi SE. Periodically June thru Sept. From 2000′ AGL.

Cottage Grove: 1½ mi E of city. Wed, Thurs, Fri, Sat 1600–2030. Up to 10,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR–SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR–SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

●**Portland:** ½ mi S and 2 mi E of Scholl Arpt, Orchards, Wash.

Portland: 4 mi N Aurora Flight Strip, Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

Buffalo Springs Arpt: Weekend. SR–SS. Up to 15,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Maytown: 2 mi NE. Weekend. SR–SS. Up to 12,500′.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

Mountville, Gordon Sport Arpt: Weekend. Dawn-dusk. Up to 15,000′.

New Hanover Arpt: Most activities weekends. Up to 12,500′.

Palmyra, Reigles Arpt: Wed and Sun. Dawn-dusk. Up to 15,000′.

Pottstown Arpt: Weekends. Up to 8000′.

Quakertown, Upper Bucks Co. Arpt: 7 mi E. Suns 0900–SS. Up to 12,500′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

Darlington Co. Arpt: Daily SR–SS. Up to 12,500′ AGL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR-SS. Up to 12,500′.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens,McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Caddo Mills Airfield: 18.5 NM due E of Dallas VOR. 0200Z thru 0500Z and 1900Z thru 2300Z Sats and Suns. Up to 2040′ MSL.

Clear Springs Arpt: Suns. Up to 12,500′.

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AFB. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampasas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

Littlefield Mun: 2200Z–SS daily. SR–SS Sat, Sun, holidays. Up to 12,000′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 8 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

Rio Vista: 2 mi W. Tues, Thurs, Sat, and Sun. 0800–2000. Up to 12,500′.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

Hill AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Centerville: 4 mi W. Sat and Sun. SR–SS. Up to 15,000′.

Forest, New London Arpt: Daily. Up to 11,000′.

Hopewell Arpt: Weekends. Up to 9000′.

Leesburg: 2 nmi N or 10 nmi Herndon VOR on 340° radial. Weekends. Up to 12,500′. Occasional ngt jump.

Manassas: On the Herndon 195 radial 15 mi. Weekends and holidays. Occasional ngt jumping. Up to 12,500′.

Midland: 8 nmi from CSN VOR on 120° rad. Weekends. Up to 12,000′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000′.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

Quantico MCAS: NW end of base. Weekdays 1600–1800, Sat 0900–1100 and holidays. Up to 13,000′.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Muni Arpt: Cont. Up to 12,000′.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

Bellingham Arpt: 6NE. 7days per wk. Up to 12,500′ AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000′ MSL.

Enumclaw Arpt: Weekends and holidays. Up to 15,000′.

Issaquah-Sky Ranch Arpt: Wed, Fri and weekends. Up to 7000′.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 6 mi N SR to 1 hr after SS. Up to 12,000′ AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500′.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

Lake Delton, Dells Arpt: ¾ mi N. McBoyle. Daily 1900–1920Z, 2300–2320Z, 0100–0120Z. Up to 7800′ MSL.

Lake Geneva Wal-Co. Farms Arpt: Wed, Sat and Sun SR—one hr after SS. Up to 15,000′.

New Holstein Arpt: Weekends, SR-SS. Sat and Sun. Up to 12,500′.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500′.

Stevens Point Mun Arpt: 2 mi NW. Daily. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500′ MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500′ AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000′.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred Route Starting and Terminating Fixes—Preferred routes generally commence and terminate at fixes on or near the perimeter of the terminal area.

Depicted on the Area Charts, produced by Coast and Geodetic Survey, are the normal routes between the airport and the preferred route starting/terminating fixes. Whenever a fix is shown in **bold-face type**, pilots should refer to the appropriate Area Chart for the routing he may expect prior to or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston.......... V2 **GDM** (L-25)
Kennedy........ V91 **RVH** (L25)
LaGuardia........ V91 V487 **Stamford** (L25)
Newark.......... V489 **Budd Lake** (L25)

ALBUQUERQUE

Denver.......... **Aden** V19W SAF V83 PUB V19E **IOC** (L-4, 6)
Kansas City....... **Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L-6)
Los Angeles....... **GNT** V12 EED V208 TNP V264S **ONT.** (L-4, 3)
Phoenix.......... **GNT** V190N SJN V190 **Lake.** (L-4)

ATLANTA METRO AREA

● Birmingham...... **Chattahoochee** V18 **ANB** (L20, 14)
Charlotte......... **Conyers** V66 FML (L-20)
Cincinnati........ Crabapple V97 **Dry Ridge** (L-20, 22)
Chicago.......... **Crabapple** V51 **CGT** (L-14, 20, 21, 23)
●Dallas.......... **Chattahoochee** V18 MLU V94 V477E **Forney** (L20, 14, 18, 17, 13)
Dulles.......... **Conyers** V66 FML V454 LVL V155 GVE V39E **Brandy** (L20-22)
●Houston......... **Chattahoochee** V18 MEI V194 MCB V222 LCH V222N **Monument** (L20, 14, 18)
Kennedy......... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
Jacksonville...... **Griffin** V243 AYS V243W **Callahan** (L20, 18)
La Guardia....... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 **RBV** (L-20, 22, 24)
●Memphis......... **Chattahoochee** V18 BHM V176N HL1 (L20, 14)
Miami........... **Brooks** V97 ABY V159 V159W CTY V7 LAL V157 **Cypress** (L20, 18, 19)
Newark.......... **Conyers** V66 FML V454 V157 V20 V213 V29 V433 **Rocky Hill** (L-20, 22, 24)
Orlando.......... **Griffin** V243 AYS V157 OCF V159W **Clermont** (L20, 18, 19)
Pittsburgh........ **Crabapple** V97 TYS V115 PKB V119 **HLG** (L-20. 22, 24)
Tampa........... **Brooks** V97 ABY V159 V159W CTY V7 Homo V35E **Hazel** (L20, 18, 19)
Washington....... **Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

●Atlanta.......... **BHM** V18S **Palmetto** (L14, 20)
New Orleans...... TCL V18 MEI V455 HBG V455W **Madison** (L14, 18 17)
Pittsburgh........ GAD V115E CHA V115 PKB V119 **HLG** (L-14, 22, 24)

BOSTON METRO AREA

Albany.......... V14 Melrose (L-25)
Buffalo.......... V14 Bellona V31 ROC V142 **Grant** (L-25)
Cleveland........ V14 ALB V72 Hadley V232 **Mentor** (L-25, L-24)
Kennedy......... **PUT** V475E V16 **RVH** (L25)

BOSTON METRO AREA—Continued

LaGuardia	**Millbury** V3 V445 **Stamford** (L25)
Newark	**Millbury** V3 V292 **Budd Lake** (L25, 24)
Philadelphia	**Millbury** V3 **Warrington** (L25, 24)
Rochester	V14 Bellona V31 Fishers (L-25)
Washington	**PUT** V308 **North Beach** (L25, 24)
Windsor Locks	**PUT** PUT 295 rad Meadow, (L25)

BUFFALO

Boston	**GEE** V14 **GDM** (L-12, L-25)
Cleveland	**Langford** V464 DKK V14 **Mentor** (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 **QG** (L-12, 23)
●Kennedy	V252 BGM V270 V34 CMK BDR **RVH** (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 **Liberty** (L-12, 25)
Midway	V84 LAN V218 **Surf** (L-12, 23)
Newark	V252 GEE V147 TOH V226 **Budd Lake** (L12-25)
O'Hare	V84 **OBK** (L12, 23)
Philadelphia	V33 PSB V238 **ESR** (L-12, 24)
Pittsburgh	V115 **EWC** (L-12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn **DCA** (L12-24)

CHARLESTON, W. VA.

Cincinnati	V128 **California** (L22)
Cleveland	V115 PKB V59 V427 V40 **Sharon** (L22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 **HLG** (L-22, 24)
Washington	V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

●Atlanta	CLT V194 **OCR** (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 **RBV** (L-20, 22, 24)
Miami	FML V37 ALD V157 **Cypress** (L20, 18, 19)
Washington	New London V454 LVL V157 **Ironsides** (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	**EON** V171 SCJ V243 **Kennesaw** (L23, 21, 14, 20)
Denver	**Malta** V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	**Musky** V100 ELX V218 **Troy** (L23, 12)
Dulles	**EON** V144 **Blue Ridge** (L23, 24)
Kennedy	V6 SEG V170 V276 **RBV** (L23, 24)
Indianapolis	**EON** V128 (L-23)
La Guardia	V6 V433 **Liberty** (L-23, 24)
Los Angeles	**Malta** V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	**Big Run** V173 CAP V9 Kerrville (L-23, 21, 14)
●Miami	**EON** V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 LAL V157 **Cypress** (L23, 21, 14, 20, 18, 19)
Minneapolis	**Malta** V218 RST V82 **FGT** (L23, 11, 10)
Newark	V6 SEG V30 **Rocky Hill** (L-23, 24)
Philadelphia	V6 PSB V238 **ESR** (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 **EWC** (L23, 24)
San Francisco	**Malta** V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
St. Louis	**Big Run** V191 V14 **Staunton** (L23, 21)
●Tampa	**EON** V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 Homo V35E **Hazel** (L23, 21, 14, 20, 18, 19)
Tulsa	**API** V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	**EON** V144 ESL V4 **HRN** (L23, 24)

From Midway only

Cleveland	**Crib** V6 SKY V232 **Vermillion** (L23)
Des Moines	**API** V8 CVA V233 CID V172 TNU (L23-11)
Kansas City	**API** V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co	**Crib** V10 **Milan** (L23)
Omaha	**API** V8 CVA V233 CID V172 EOL (L23, 11)
Willow Run	**Crib** V10 **Milan** (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 **Vermillion** (L-23)
Des Moines	V172 **TNU** (L-23, 11)
Kansas City	V84 BDF V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co	V172 Musky V100 LeRoy V30 LFD V10 **Milan** (L23)
Omaha	V172 EOL (L23, 11)
Willow Run	V172 Musky V100 LeRoy V30 LFD V10 **Milan** (L23)
Windsor	V100 V218 **Troy** (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 **OCR** (L-21, 22, 20)
Charleston W. Va	V128S YRK V128 (L22)
Chicago	V97 **CGT** (L-21, 23)
Detroit (City)	V275 **SVM** (L21, 23)
Indianapolis	V97 (L-21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 **Liberty** (L22-24)
Louisville	V47 ABB V51 (L-21)
Metro Wayne Co	V275 **Milan** (L21, 23)
●Miami	V47 ABB V51 Crabapple V97 ABY V159 V159W CTY V7 LAL V157 **Cypress** (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 **Rocky Hill** (L22-24)
Pittsburgh	V128S YRK V44 PKB V119 **HLG** (L22-24)
St. Louis	V47 ABB V44 **Mounds** (L21)
Willow Run	V275 **Milan** (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 **GDM** (L-23, 24, 12, 25)
Buffalo	V14N **Crystal Beach** (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 **Niles** (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	V42E QG V90 (L-23)
Kennedy	**ACO** V30 SEG V170 V276 **RBV** (L24)
Indianapolis	**CLE** V14 (L23)
La Guardia	**ACO** V30 CIP V6 Amboy V433 **Liberty** (L-24)
Metro Wayne Co	V42E V103 **Lasalle** (L23)
Miami	V443 V133 V35 V185 Dover V157 **Cypress** (L23 22, 20, 18, 19)
Newark	**ACO** V30 **Rocky Hill** (L-24)
Philadelphia	**ACO** V30 PSB V238 **ESR** (L-24)
Pittsburgh	**ACO** V297 **EWC** (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	**ACO** V103 IRL V37 Millsboro V92 FRR V4 **HRN** (L-24)
Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L-23, 24, 22)
Indianapolis	Grindell V210 (L-23)
LaGuardia	**APE** V12 V106 V6 V433 **Liberty** (L23, 24)
Pittsburgh	APE V12 **HLG** (L-23, 24)
St. Louis	V12N V210 **Staunton** (L23, 21)
Toledo	V38 FDY V47 (L-23)
Washington	APE V144 ESL V4 **HRN** (L-23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	**Lakeside** V114 Claude (L-13)
●Atlanta	**DAL** V278 V18S **Palmetto** (L13, 14, 20)
Dulles	**DAL** V278 V16 BNA V140 MOL V251 V174 **Blue Ridge** (L13-14-21-22)
El Paso	**Joshua** V94 INK V16 **RIO** (L-13, 4)
Houston	**Trinity Fork** V477 LOA V477W **Fairbanks** (L-13, 17)
Los Angeles	**Joshua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L-13, 4, 3)
Memphis	**DAL** V278 TXK V16 Walls (L13-L14)
Midway	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
New Orleans	**DAL** V114 **French** (L-13, 17)
O'Hare	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
San Antonio	**Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L-13, 15)
Tulsa	**DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L-13, 6)
Washington	**DAL** V278 V16 BNA V140 MOL V16N GVE V16 **Ironsides** (L-13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 **CGT** (L-23)
Cleveland	V275 V47W FDY V8 MFD V246 **Sharon** (L23)
Detroit/City	V275 **SVM** (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co	V275 **Milan** (L23)
Willow Run	V275 **Milan** (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N **Langston** (L23-21-6)
Washington	V12 APE V144 ESL V4 **HRN**(L-23, 24)

DENVER METRO AREA

Chicago	**DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L-8, 11, 23)
Kennedy	**DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 **RBV** (L12, 24)

From City and Windsor only

Newark	V221 ERI V170 SEG V30 **Rocky Hill** (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 **ESR** (L-12, 24)
Ft. Wayne	**SVM** V170 Leslie V45 JXN V221 (L-23)
Midway	**SVM** V170 V84 V7E V116 (L-23)
Milwaukee	**SVM** V170 PMM V30S **Pike** (L-12, 23)
O'Hare	**SVM** V170 V84 **OBK** (L-23)

From Metro or Willow Run only

Buffalo	V221 V90 V14N **Crystal Beach** (L-12)
Cleveland	**Stripe** V297 **Vermilion** (L23)
Ft. Wayne	**Dexter** V221 (L-23)
Midway	**Pinckney** V170 V84 V7E V116 (L-12, 23)
Milwaukee	**Dexter** V116 JXN V45 Leslie V170 PMM V30S **Pike** (L-12, 23)
O'Hare	**Pinckney** V170 V84 **OBK** (L-12, 23)
Pittsburgh	**Stripe** V133 Bay V6 V42 ACO V297 **EWC** (L23, 24)
Rochester	V221 V90 V14 V2 (L-12)
Washington	**Stripe** V133 ZZV V144 ESL V4 **HRN** (L23, 24)

EL PASO

Dallas	**HUP** V66 MAF V16S BGS V16 ABI V66 **Denton** V114 **Lakeside** (L-4, 13)
Los Angeles	**EWM** V94 GBN V461 BXK V16 **ONT** (L-4, 3)
San Antonio	**HUP** V198 **Boerne** (L-4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 **PRR** (L-19)

HOUSTON METRO AREA

●Atlanta	**LaPorte** V20S LCH V20 LFT V70 MVC V20 MGM V20N **Sharps** (L17, 18, 14, 20)
Dallas	**Gulf Coast** V477E **Forney** (L-17, 13)
New Orleans	**LaPorte** V20S LCH V20 **Turtle** (L-17)
San Antonio	**Andrau** V222 **Hunter** (L-17, 15)

INDIANAPOLIS

Detroit	V11 **SVM** (L-23)
Evansville	V11W SCJ V11E (L-21)
Kennedy	V50 DAY V12 V106 V276 **RBV** (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 **Liberty** (L23, 24)
Metro Wayne Co	V1 V10 **Milan** (L23)
Midway	V97W V97 **CGT** (L-23)
Newark	V50 DAY V12 V106 V30 **Rocky Hill** (L23, 24)
Pittsburgh	V50 DAY V12 **HLG** (L-23, 24)
St. Louis	V14 **Staunton** (L21)
Willow Run	V11 V10 **Milan** (L23)

JACKSONVILLE

●Atlanta	**Kings** V5E DBN V5 **McDonough** (L18, 20)
Dulles	**Clinch** V3E SAV V3 RDU V155 GVE V39E **Brandy** (L18-20-22)
Kennedy	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 **BGT** (L-18, 20, 22, 24)
LaGuardia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 **RBV** (L-18, 20, 22, 24)
Miami	**Blue Jacket** V267 **New River** (L-19)
Newark	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 **Rocky Hill** (L-18, 20, 22, 24)
Norfolk	**Clinch** V3E SAV V437 CHS VI MYR V213 RMT V189 FKN V266 Burdette (L18-20-22)
Orlando	**Blue Jacket V267** Woodruff (L-18, 19)
Philadelphia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 **OOD** (L-18, 20, 22, 24)
Washington	**Clinch** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L-18, 20, 22)

KANSAS CITY METRO AREA

Midway	**Excelsior** V116 **JOT** (L-21, 23)
O'Hare	**Excelsior** V116 **JOT** (L-21, 23)
St. Louis	**BSP** V12 **MTS** (L-21)
Wichita	**Bonner Springs V12** De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 **Liberty** (L-21, 22, 24)
Newark	V4 CRW V106 V30 **Rocky Hill Hill** (L-21, 22, 24)

MEMPHIS

●Atlanta	**HLI** V176 BHM V18S **Palmetto** (L14, 20)
Dallas	Prichard V16S PBF V16 **DAL** (L13-L14)
Dulles	Moscow V16S GHM V16 V140 MOL V251 V174 **Blue Ridge** (L14, 21, 22)
Midway	Cuba V9W V9 **JOT** (L-14, 21, 22)
New Orleans	Savage V9W GRW V9 **Madison** (L14-L17)
O'Hare	Cuba V9W V9 **JOT** (L-14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 **Ironsides** (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

●Atlanta	**MIA** V7 LAL V157 AMG V5 McDonough (L19, 18, 20)
Charlotte	**MIA** V7 LAL V157 ALD V37 FML (L19-L18-L20)
Chicago	**MIA** V35 FMY V7 LAL V157 AMG V51 DBN V267 TYS V97 **CGT** (L19, 20, 22, 21, 23)
Cleveland	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 **Sharon** (L19, 20, 22, 21, 23)
Detroit (city)	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 **QG** (L19, 20, 22, 21, 23)
Dulles	**Guppy** drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E **Brandy** (L19-L20-L22)
Habana	**Gary** V51 EYW drct SF/Rbn or **PRR/Rbn** B19 EYW drct SF. Rbn (L19)
Kennedy	**Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L-19, 20, 22, 24)
Jacksonville	**Martin** V3E PBI V3 DAB V3E **Shiloh** (L-19)
La Guardia	**Guppy** drct Halibut Control 1150 ILM V1W V213 **RBV** (L-19, 20, 22, 24)
Metro Wayne Co.	**MIA** V7 LAL V157 ALD V37 PSK PSK V59 CTW V427 BSV V40 CLE V42 V103 **Lasalle** (L19, 20, 22, 21, 23)
Newark	**Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L-19, 20, 22, 24)
Pittsburgh	**MIA** V7 LAL V157 ALD V37 **AGC** (L19-L20-L22-L24)
Tampa	**MIA** V7 V35 **Hanson** (L19)
Washington	**Guppy** drct Halibut Control 1150 ILM V1 ISO V157 **Ironsides** (L-19-L20-L22)
Willow Run	**MIA** V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 **Lasalle** (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 **API**; or **Taylor** V7E V116 **Surf** (L-12, 23)
Detroit	V2S MKG V2 **SVM** (L-12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 **RBV** (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	**Prescott** V2 V97 V171 V6 **API** (L-10, 11, 23)
O'Hare	**Prescott** V2 V97 **Lakewood** (L-10, 11, 23)

MONTGOMERY

Washington	**TGE** V154 MCN V56 AGS V155 V157 **Ironsides** (18, 20, 22)

NASHVILLE

LaGuardia	**Freedom** V140N LOZ V140 MOL V16N GVE V16 ENO V213 **RBV** (L21, 22, 24)
Newark	**Freedom** V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 **Rocky Hill** (L21, 22, 24)

NEW ORLEANS METRO AREA

●Atlanta	**PCU** V70 MVC V20 MGM V20N **Sharps** (L17, 18, 20)
Birmingham	**PCU** V455 MEI V154 V209 BWA drct BHM/LOM (L-17, L-18, L-14)
Dallas	**Walker** V-114N AEX V-114 GGG V-94 V-477E **Forney** (L-17, 13)
Dulles	**PCU** V70 MVC V20 SBV V39 GVE V39E **Brandy** (L-17, 18, 20, 22)
Houston	**TBD** V20S LFT V20 LCH V222N **Monument** (L-17)
Kennedy	**PCU** V70 MVC V20 V213 ENO V44 **Barnegat** (L-17, 18, 20, 22, 24)
Memphis	**PCU** V9E MCB V9 GRW V9E **Independence** (L-14)
Newark	**PCU** V70 MVC V20 V213 ENO V29 V433 **Rocky Hill** (L-17, 18, 20, 22, 24)
Washington	**PCU** V70 MVC V20 SBV V39 GVE V16 **Ironsides** (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	**Sound** POU V487 Brainard (L-25)
Bradley	**Sound** V433 Waterbury (L25)

From Newark only

Albany	**SAX** POU V487 Brainard (L-25)
Atlanta	**SBJ** V3 EMI V39 V140 MOL V143 V222 V35 V20N **OCR** (L24, 22, 20)
Baltimore	**SBJ** V3 V93 (L24)
Boston	**SAX** POU V58 V167 Sterling (L25)
Buffalo	**TVE** V188 V147 V36 **Dale** (L-25)
Cincinnati	**SBJ** V3 V166 V4 V174 V128 **California** (L24-22)
Cleveland	**TVE** V232 **Mentor** (L-24, 23)
Detroit (City)	**TVE** V188 TOH V147 V116 **QG** (L24, 23)
Detroit Metro Area	**TVE** V188 V147 V116 **QG** (L24, 23)
Dulles Int'l	**SBJ** V3 EMI V166 V223 **Sugar Loaf** (L24)
Indianapolis	**TVE** V232 ETG V226 V119 V210 (L24-23)
Jacksonville	**SBJ** V3 V29 SBY V1 V437 SAV V3 **St. Marys** (L24, 22, 20, 18)
Louisville	**SBJ** V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co.	**TVE** V188 TOH V147 V116 **QG** (L24, 23)
Miami	**SBJ** V3 V29 SBY V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Nashville	**SBJ** V3 EMI V39 V140 **Lebanon** (L24, 22, 14)
New Orleans	**SBJ** V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W **Madison** (L24, 22, 20, 14, 18)
Norfolk Metro Area	**SBJ** V3 V29 SBY VI **CCV** (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 **Warrington** (L24)
Pittsburgh	**TVE** V232 ETG V226 **EWC** (L-24)
Providence	**SAX** POU V58 V130 Lafayette (L25)
Rochester	**SAX** V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	**SAX** V483 (L-25)
Toledo	**TVE** V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	**TVE** V188 TOH V147 V116 **QG** (L24, 23)

From Kennedy only

Atlanta	**Dutch** V308 ENO V213 V20 SPA V20N **OCR** (L24, 22, 20)
Baltimore	**Dutch** V308 ENO V268 (L24)
Boston	**HTO** V139 **HTM** (L25)
Buffalo	**HUO** V126 V36 **Dale** (L-25)
Cleveland	**HUO** V126 V58 IPT V188 JFN V14 **Mentor** (L25, 24, 23)
Detroit	**HUO** V126 V116 **QG** (L25, 24, 23)
Dulles	**HUO** V39 V162 HAR V223 **Sugar Loaf** (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	**Dutch** V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
Louisville	**HUO** V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
Metro Wayne Co.	HUO V126 BFD V172 V188 V103 **Lasalle** (L25, 24, 23)
Miami	**Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Montreal	**Sound** POU V487 (L-25, 26)
New Orleans	**Dutch** V308 OTT V16 V115 V18 V455 V455W **Madison** (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	**Dutch** V139 CCV (L-24, 22)
O'Hare	**HUO** V126 V116 V170 V84 **OBK** (L25, 24, 23)
Philadelphia	**Dutch** V312 CYN V16 V239 **OOD** (L24)
Pittsburgh	**HUO** V126 AVP V58 V226 **EWC** (L-25, 24)
Providence	**HTO** V139 (L25)
Rochester	**HUO** V249 V34 Fishers (L-25)
Syracuse	**HUO** V483 (L25)
Toronto	**HUO** V126 AVP V36 (L-25, 12)
Washington	**Dutch** V308 **North Beach** (L24, 18)
Willow Run	**HUO** V126 AVP V116 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta	**Paterson** V3 EMI V39 V140 MOL V143 V222 V35 V20N **OCR** (L24, 22, 20)
Baltimore	**Paterson** V3 V93 (L24)
Boston	**Sound** V467 MAD V475E V16 **BOS** (L25)
Buffalo	**SAX** V36 **Dale** (L-25, 12)
Cincinnati	**Paterson** V3 V166 V4 V174 V128 **California** (L24-22)
Cleveland	**SAX** TOH V188 JFN V14 **Mentor** (L-24, 23)
Columbus	**SAX** TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	**SAX** TOH V147 V116 **QG** (L24, 23)
Dulles Intl	**Paterson** V3 EMI V166 V223 **Sugar Loaf** (L24)
Indianapolis	**SAX** TOH V226 V119 V210 (L24, 23)
Louisville	**Paterson** V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	**Sound** POU V487 (L-25)
Metro Wayne Co.	**SAX** TOH V147 V116 **QG** (L24, 23)
Nashville	**Paterson** V3 EMI V39 V140 **Lebanon** (L24, 22, 14)
O'Hare	**SAX** TOH V147 V116 V170 V84 **OBK** (L24, 25)
Philadelphia	**Paterson** V3 **Warrington** (L24)
Pittsburgh	**SAX** TOH V226 **EWC** (L24)
Providence	**Sound** V467 V475E V130 **Lafayette** (L24, 25)
Rochester	**SAX** V116 AVP V29 V423 V34 Fishers (L25)
Toronto	**SAX** V36 (L-25, 12)
Washington	**Paterson** V3 ESR V140 Dayton GTN/Rbn **DCA** (L24)
Willow Run	**SAX** TOH V147 V116 **QG** (L24, 23)

NORFOLK METRO AREA

●Charlotte	CVI V194 RDU V66 Midland (L22, 20)
Dulles	Farnham V286 **Brandy** (L22)
Kennedy	CCV V1 **BGT** (L-22, 24)
Jacksonville	CVI VI CHS V437 SAV V3 **St. Marys** (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 **RBV** (L-22, 24)
Newark	CCV V1 SBY V29 V433 **Rocky Hill** (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 **OOD** (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 **Ironsides** (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	**Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	**Crescent** V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 **Brooks** (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E **Shiloh** (L-19)

PHILADELPHIA METRO AREA

Baltimore	**EWT** V166 V93 (L-24)
Boston	MIV 101 rad V139 **HTM** (L24, 25)
Buffalo	**Boyer** V170 SLT ELZ V119 Burns V36 **Dale** (L-25)
Cleveland	**Boyer** V162S HAR V12 AGC V8 BSV V40 **Sharon** (L-24, 23)
Detroit (City)	**Boyer** V162S V12 V37 V103 V42 **QG** (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 **Sugar Loaf** (L24)
Kennedy	**Columbus** V123 **RBV** (L-24)
Jacksonville	**MIV** 205 rad ATR V1 V437 V3 **St. Marys** (L24, 22 20, 19)
LaGuardia	**Columbus** V213 **RBV** (L-24)
Metro Wayne Co.	**Boyer** V162S V12 V37 V103 **Lasalle** (L24, 23)
Miami	**MIV** 205 rad ATR V1 Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark	V433 **Rocky Hill** (L-24)
Norfolk	**MIV** 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	**Boyer** V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	**EWT** V166 V140 Dayton GTN/Rbn **DCA** (L24)
Willow Run	**Boyer** V162S V12 V37 V103 **Lasalle** (L24, 23)

PHOENIX

Albuquerque	**Lake** V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 **Harrington Ranch** (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N **Farley** (L-4, 6)

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 **Sharon** (L-23, 24)
Philadelphia	**CLN** V210 HAR V238 **ESR** (L-24)
Willow Run	V40 V42 V103 **Lasalle** (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 **OCR** (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 **EMI** (L-24)
Boston	**Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L-24, 25)
Charleston W. Va.	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 **Niles** (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
Detroit	V40 V42 V103 **Lasalle** (L24, 23)
Kennedy	V119 V276 **RBV** (L-24)
Indianapolis	V210; or **Kilgore** V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 **Liberty** (L24)
Newark	V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L-24)
Philadelphia	**CLN** V210 HAR V238 **ESR** (L-24)
St. Louis	**Kilgore** V210 **Staunton** (L23, 21)
Washington	V103 V92 FRR V4 **HRN** (L-24)

From Allegheny Co. only

Chicago	**AGC** V8 FDY V422 CGT V7 **Niles** (L-24, 23)
Kennedy	V12 V106 Reedsville V276 **RBV** (L24)
LaGuardia	V12 V106 SEG V6 V433 **Liberty** (L24)
Newark	V12 V106 V30 **Rocky Hill** (L24)

PROVIDENCE

Kennedy	V167 V16 **RVH** (L25)
LaGuardia	V167 V3 V445 **Stamford** (L25)
Newark	V167 HFD V292 **Budd Lake** (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 **OOD** (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 **GDM** (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)
●Kennedy	V147 GEE V252 BGM V270 V34 CMK BDR **RVH** (L25)
LaGuardia	V147 ABE V6 V433 **Liberty** (L-25)
Newark	V147 TOH V226 **Budd Lake** (L25)
Philadelphia	V147 ABE V149 V3 **Warrington** (L25–24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn **DCA** (L25–24)
Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 **Lasalle** (L12, 23)

SAN ANTONIO

Dallas	**Mission** V17 ACT V15 **Desoto** (L-15, 17, 13)
El Paso	**Guadalupe** V222 **Rio** (L-15, 4)
Houston	**Clear Spring** V198 ELA V180 **Arcola** (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	**LIN** V113 RNO V6 MBW V100 **Lakewood** (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	**Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2, 3)
Kennedy	**LIN** V113 RNO V6 MBW V100 OBK V84 **LAN** V2 SVM V116 ERI V170 V276 **RBV** (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	**TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V246 **Sharon** (L-21, 23)
Columbus	**TOY** V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 **Lakeside** (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 **Justin** (L-21, 6, 13)
Indianapolis	**TOY** V12 Wilbur V11 (L-21, 23)
Kansas City	V4 **Missouri City** (L-21)
Memphis	V9 Kerrville (L-21, 14)
Midway/O'Hare	V9 **JOT** (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	**TOY** V52 EVV V4 **HRN** (L-21, 22)

SYRACUSE

●Kennedy	V273 HNK V34 CMK BDR **RVH** (L25)
LaGuardia	V153 V29 V6 V433 **Liberty** (L25)
Newark	V273 **Budd Lake** (L25)
Philadelphia	V29 BGM V149 V3 **Warrington** (L25–24)

TAMPA METRO AREA

Atlanta	**V97W** Scallop V97 **Brooks** (L-19, 18, 20)
Miami	**Gibson** V97 **MIA** (L-19)

TORONTO

●Kennedy	V34 CMK BDR **RVH** (L12, 25)
LaGuardia	V36 V147 V6 V433 **Liberty** (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 **JOT** (L–6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 **Lakeside** (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L–6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L–6, 21)
St. Louis	V140 FYV V72 V9 **Lemay** (L–6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston	**Swan Point** V268 V139 **HTM** (L24–25)
Chicago	Flint Stone V8 FDY V422 **CGT** (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 **Sharon** (L-24, 23)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 18)
Kennedy	**Swan Point** V123 **RBV** (L24)
LaGuardia	**Swan Point** V123 **RBV** (L24)
Newark	**Swan Point** V433 **Rocky Hill** (L24)
Philadelphia	**Swan Point** V123 **OOD** (L24)
Pittsburgh	Flint Stone V8 **AGC** (L-24)

From Washington only

Atlanta	**CSN** V140 MOL V143 LYH V222 AVL V35 Clemson V20N **OCR** (L-22, 20)
Charleston W. Va.	**CSN** V308 V174 V4 Ivydale (L22)
●Charlotte	**BRV** V3 RDU V66 Midland (L22, 20)
Dallas	CSN V140 BNA V16 **DAL** (L22, 21, 14, 13)
Greensboro	**CSN** V140 MOL V143 Leaksville (L-22)
Harrisburg	**Ashburn** V8N V223 (L-24)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21, 14)
Miami	BRV V3 V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	**CSN** V140 **Lebanon** (L22, 21)
New Orleans	**CSN** V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W **Madison** (L22, 20, 14, 18)
Norfolk Metro area	**BRV** V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 **St. Marys** (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	**EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BQT** (L-24)
Jacksonville	**CSN** V39 GVE V155 FAK V3 **St. Marys** (L24)
LaGuardia	**EMI** V166 EWT V157 **RBV** (L-24)
Miami	**CSN** V39 GVE V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E **Oakland** (L22, 20, 19)
Newark	**EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia	**Braddock** HRN 354 rad V251 V238 **ESR** (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E **Langston** (L6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Part 1)
(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence

via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Philipsburg VORTAC 082 radial Philipsburg VORTAC 082 radial to Philipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**—Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transiton**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 090 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 082 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, heading 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE

SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

COLORADO

MEEKER "EKR" VORTAC

June 23, VORTAC will be shutdown until aprxly July 21. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V200	MTU VORTAC to EKR	MTU VORTAC to Tmpry EKR Int via MTU 076 rad	14,500	17,500
		MCA EKR Int E bnd	16,000	
V200	RLG VORTAC to EKR VORTAC	RLG VORTAC to Tmpry EKR Int via RLG VORTAC 260 rad	16,000	17.500

Existing Reporting Points	Temporary Reporting Points	MRA
EKR VORTAC	Tmpry EKR Int—RLG VORTAC 260 rad & GJT VORTAC 018 rad	16,000
Rangely Int	MTU VORTAC 076 rad & GJT VORTAC 341 rad	13,000
Plateau Int	None	
Crystal Int	GJT VORTAC rad 059—DME 54 mi.	10,000
Palisade Int	GJT VORTAC rad 059—DME 24 mi.	7,600

FLORIDA

OCALA "OCF" VORTAC SHUTDOWN

Aug 2, VOR will be shutdown until aprxly Aug 4. DME shutdown Aug 1-Aug 6. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V159	ORL VORTAC to OCF VORTAC	ORL VORTAC to OCF Int via ORL 309 rad	3,000	17,000
V159/ V157	GNV VORTAC to OCF VORTAC	GNV VORTAC to OCF Int via GNV 162 rad	3,000	17,000
V157/ V441E	Webster Int to OCF VORTAC	Webster Int to OCF Int via LAL 350 rad	5,000	17,000
V159W	CTY VOR to OCF VORTAC	CTY VOR to OCF Int via CTY 119 rad	3,000	17,000
V159W	OCF VORTAC to Center Hill Int	None		
V441	OCF VORTAC to Homo Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
OCF VORTAC	Tmpry OCT Int—GNV VORTAC 162/25 rad and DAB VORTAC 262 rad	3,000
Lake Helen Int	GNV VORTAC 118 rad and DAB VORTAC 194/19 rad	4,000
Louisa Int	LAL VORTAC 033 rad and ORL VORTAC 258/17 rad	2,000
Scott Int	VRB VORTAC 304 rad and ORL VORTAC 242/20 rad	5,000
Campbell Int	VRB VORTAC 303 rad and ORL VORTAC 227/20 rad	4,000
Center Hill Int	LAL VORTAC 002 rad and ORL VORTAC 283/35 rad	2,000
Bushnell Int	LAL VORTAC 350/44 rad and ORL VORTAC 283 rad	3,000
Homo Int	GNV VORTAC 189/48 rad and CTY VOR 149 rad	3,000
Richey Int	PIE VORTAC 349 rad and LAL VORTAC 306/53 rad	3,000
Oyster Int	CTY VOR 184 rad and PIE VORTAC 315/37 rad	5,000
Eddy Int	GNV VORTAC 211 rad and PIE VORTAC 349/57 rad	3,000
Shrimp Int	GNV VORTAC 218 rad and PIE VORTAC 334/54 rad	4,000

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
Scallop Int	PIE VORTAC 334/73 rad and CTY VOR 200 rad	5,000
Paola Int	ORL VORTAC 354/15 rad	2,000
Sanford Int	ORL VORTAC 014/14 rad	2,000

TALLAHASSEE "TLH" VORTAC

Due to unusable radials the following substitute route is effective immediately:

Jet Routes

Routes	Existing Routes	Substitute Routes
J2/20/41	MAI VOR to TLH to TLH VOR	Via MAI 106 rad
J2	TLH VOR to JAX	COP 50 mi E of TLH VOR

• INDIANA

KOKOMO "OKK" VOR SHUTDOWN

Postponed until Aug 15 until aprxly Aug 17.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V96/285	IND VOR to OKK VOR	IND VOR to Tmpry OKK Int via IND VOR 017 rad	3,000	17,500
V96	Fontaine Int to OKK VOR	Fontaine Int to Tmpry OKK Int via FWA VOR 236 rad	3,000	17,500
V285	Claypool Int to OKK VOR	Claypool Int to Tmpry OKK Int via GSH VOR 181 rad	3,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
Landess Int	FWA VOR 218 rad & MIE VOR VOR 346 rad	3,000
Fairmont Int	FWA VOR 218 rad & MIE VOR 316 rad	3,000
OKK VOR	MIE VOR 030 rad & FWA VOR 236 rad	3,000

OHIO

BRIGGS "BSV" VORTAC SHUTDOWN

Due to unusable sectors, following substitute route is efctv immediately.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V48,75	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,75,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BSV VORTAC	Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad	3,100

• TENNESSEE

KNOXVILLE "TYS" VORTAC SHUTDOWN

July 25–26, VOR will be shut down. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V16	CSV VORTAC to TYS VORTAC	CSV VORTAC to TYS Rbn via CSV VORTAC 084 rad and 264 Brg from TYS Rbn	5,000	17,500
V16/185E	TYS VORTAC to Ottway Int	TYS Rbn to Ottway Int via 068 Brg from TYS Rbn	4,000	17,500
V16S/115	Sweetwater Int to TYS VORTAC	Sweetwater Int to TYS Rbn via 250 Brg from TYS Rbn	3,000	17,500
V16S	TYS VORTAC to Pittman Int	TYS Rbn to Pittman Int via 092 Brg from TYS Rbn	8,000	17,500
V97	Murphy Int to TYS VORTAC	Tmpry Murphy Int to Tmpry Howard Int via 195 M Brg from TYS Rbn. Tmpry Howard Int to Tmpry Tallassee Int to TYS Rbn via 195 Brg from TYS Rbn	8,000 5,000 3,000	17,005 17,500 17,500
V267	Fontana Int to TYS VORTAC	Tmpry Fontana Int to TYS Rbn via 173 Brg from TYS Rbn	8,000	17,500
V16N	TYS VORTAC to Farley Int	TYS Rbh to Farley Int via 051 Brg from TYS Bbn	4,000	17,500
V115	TYS VORTAC to Rose Hill Int	TYS Rbn to Rose Hill Int via 031 Brg from TYS Rbn	6,000	17,500
V97E	TYS VORTAC to LOZ VORTAC	TYS Rbn to LOZ VORTAC via 017 BRG from TYS Rbn and LOZ VORTAC 141 rad	5,500	17,500
V97	TYS VORTAC to Westbourne Int	TYS Rbn to Westbourne Int via 357 Brg from TYS Rbn	5,000	17,500
V185	TYS VORTAC to Piedmont Int	TYS Rbh to Tmpry Piedmont Int via 068 Brg from TYS Rbn	6,000	17,500

Existing Reporting Points	Substitute Reporting Points	MRA
Sweetwater Int	CSV VORTAC 099 rad and CHA VORTAC 036 rad	4,000
Murphy Int	HRS VOR 271 rad and 195 Brg from TYS Rbn	8,000
Howard Int	CSV VORTAC 110 Rad and 195 Brg from TYS Rbn	5,000
Tallassee Int	CSV VORTAC 095 rad and 195 Brg from TYS Rbn	3,500
Fontana Int	CSV VORTAC 110 rad and 173 Brg from TYS Rbn	7,000

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Existing Reporting Points	Temporary Reporting Points	MRA
Norris Int	CSV VORTAC 063 rad and 157 Brg from TYS Rbn	5,000
Piedmont Int	SOT VOR 302 rad and 068 Brg Brg from TYS Rbn	7,000
Pittman Int	SOT VOR 281 rad and HRS VOR 025 rad	8,000
Farley Int	HMV VORTAC 272 rad and SOT VOR 357 rad	4,000
TYS VORTAC	Tmpry TYS int—TYS Rbn	2,000

All other Ints based on TYS VORTAC are unusable.

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J43	ATL VORTAC to LEX VORTAC	ATL VORTAC to LEX VORTAC via ATL VORTAC 010 rad and LEX VORTAC 167 rad	FL 180	FL 450
J91	ATL VORTAC to CRW VORTAC	ATL VORTAC to CRW VORTAC via ATL VORTAC 010 rad and TYS Rbn 190 brg from to TYS Rbn thence via TYS Rbn 034 brg from and CRW VORTAC 218 rad to CRW VORTAC	FL 180	FL 450
J22	BHM VORTAC to PSK VORTAC	BHM VORTAC to PSK VORTAC via BHM VORTAC 044 rad and TYS Rbn 224 brg from to TYS Rbn thence via TYS Rbn 067 brg from and PSK VORTAC 249 rad to PSK VORTAC (Sub PSK LFR 249 brg from while PSK VORTAC out of service)	FL 180	FL 45
J83	TYS VORTAC to APE VORTAC	TYS Rbn to APE VORTAC via TYS Rbn 017 mag brg from and APE VORTAC 191 rad	FL 180	FL 450
J46	BNA VORTAC to TYS VORTAC	BNA VORTAC to TYS Rbn via BNA VORTAC 091 rad and TYS Rbn 275 mag brg from	FL 180	FL 450

Existing Reporting Points	Temporary Reporting Points	MRA
TYS VORTAC	Tmpry TYS Int—TYS Rbn	18,000

VIRGINIA

PULASKI "PSK" VORTAC SHUTDOWN

Tmpry VOR comsnd. Ident: PSK. Freq: 115.9, Class: H-VORW. during indefinite shutdown of Pulaski VORTAC. For substitute route structure use the follows:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37	PSK VOR to Frankford Int.	Via Tmpry PSK VOR 016 rad to Frankford Int.	6,000 PSK-Zenith 8,000 Zenith-Frankford MRA 17,500	
V-16	PSK VOR to ROA VOR	Via Tmpry PSK VOR 070 rad to midpoint	5,000	17,500
V-136	PSK VOR to Table Int	Via Tmpry PSK VOR 101 rad to Table Int	5,500	17,500
V-45	PSK VOR to Francisco Int	Via Tmpry PSK VOR 154 rad to Francisco Int.	6,000	17,500
V-37	PSK VOR to COP	Via Tmpry PSK VOR 189 rad to COP	7,000	17,500
COP 40 NM from PSK VOR & 86 NM from FML VOR				
V-37W	PSK VOR to HKY VOR	Via Tmpry PSK VOR 202 rad and HKY VOR 021 rad	5,500	17,500
V-8	PSK VOR to Sugar Grove Int	Via Tmpry PSK VOR 242 rad to Sugar Grove Int	7,700	17,500
V-16N	PSK VOR to BLA VOR	Via Tmpry PSK VOR 258 rad to midpoint	6,600	17,500
V-45	PSK VOR to BLF VOR	Via Tmpry PSK VOR 295 rad and BLF VOR 115 rad	6,000	17,500
V-69	PSK VOR to BKW VOR	Via Tmpry PSK VOR 335 rad to midpoint	6,000	17,500

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-22	TYS VOR to PSK VOR	TYS 064 rad and Tmpry PSK VOR 249 rad	FL180	FL450
	PSK VOR to GVE VOR	Tmpry PSK VOR 068 rad and GVE VOR 252 rad	FL180	FL450
J-48	EMI VOR to PSK VOR	EMI VOR 240 rad and Tmpry PSK VOR 054 rad	FL180	FL450
J-53	AGC VOR to PSK VOR	AGC VOR 195 rad and Tmpry PSK VOR 012 rad	FL180	FL450
	PSK VOR to SPA VOR	Tmpry PSK VOR 209 rad and SPA VOR 026 rad	FL180	FL450

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VOR	Tmpry PSK VOR	5,000
Zenith Int	Tmpry PSK VOR 016 rad and CLD VOR 255 rad and ROA 292 rad	6,000
Table Int	Tmpry PSK VOR 101 rad and ROA VOR 181 rad	5,500
Willis Int	None	

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SUBSTITUTE ROUTE STRUCTURE

Existing Reporting Points	Temporary Reporting Points	MRA
Lindside Int	Tmpry PSK VOR 035 rad and ROA VOR 292 rad.	6,000
Saw Mill Int	Tmpry PSK VOR 189 rad and BLF VOR 148 rad	7,000
Burch Int	None	
Max Meadows Int	Tmpry PSK VOR 242 rad and BLF VOR 157 rad	7,700
Bland Int	Tmpry PSK VOR 258 rad and and BLF VOR 157 rad	6,600
Hicksville Int	BLF VOR 115 rad and BKW VOR 177 rad	6,000

• NEW MEXICO

ALBUQUERQUE "ABQ" VORTAC SHUTDOWN

Aug 1, thru Aug 4, VOR will be shut down. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V12/190N	GNT VORTAC to ABQ VORTAC	GNT VORTAC to Tmpry ABQ Int via GNT VORTAC 076 rad	10,000	17,000
V12/60	ABQ VORTAC to OTO VOR	ABQ Int to OTO VOR via OTO VOR 255 rad	12,000	17,000
V19	ONM VORTAC to ABQ VORTAC	ONM VORTAC to Tmpry ABQ Int via ONM VORTAC rad	8,000	17,000
V19	ABQ VORTAC to SAF VORTAC	Tmpry ABQ Int to SAF VORTAC via SAF VORTAC 218 rad	13,000	17,000
V187	ABQ VORTAC to SAF VORTAC	Tmpry ABQ Int to FMN VORTAC via GNT VORTAC 076 rad to intercept the ONM VORTAC 331 rad thence via the ONM VORTAC 331 rad thence via the ONM VORTAC 331 rad and FMN VORTAC 134 rad	12,000	17,000
V19E/19W	ONM VORTAC to ABQ VORTAC	None		
V19W	AQB VORTAC to SAF VORTAC	None		
V190	SJN VORTAC via ABQ VORTAC to Rencona Int	None		
V608	ABQ VORTAC to OTO VOR	None		
V12S	ABQ VORTAC to ACH VOR	None		
V83/	ABQ VORTAC to CNX VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
ABQ VORTAC	Tmpry ABQ Int—GNT 076 rad and ONM 347 rad	9,000
Bean Int	None	
Valencia Int	None	
Suwanee Int	None	
Dalies Int	None	
Cabezon Int	None	
Wash Int	None	
Sandoval Int	None	
Weiler Int	None	
Aden Int	None	

High Altitude

Routes	Existing Routes	Substitute Routes	MEA	MAA
J6/78	INW VORTAC via ABQ VORTAC to TCC VORTAC	INW VORTAC to TCC VORTAC via INW 087 rad and ONM 270 rad to ONM thence via ONM 059 rad and TCC 241 rad	FL 180	FL 450
J13	TCS VORTAC via ABQ VORTAC to LVS VORTAC	TCS VORTAC to LVS VORTAC via TCS 007 rad and ONM 187 rad to ONM thence via J-104	FL 180	FL 450
J15	ROW VORTAC via ABQ VORTAC to FMN VORTAC	ROW VORTAC to FMN VORTAC via ROW 308 rad and CNX 126 rad to CNX thence via CNX 293 rad to ABQ Int thence via FMN 134 rad to FMN.	FL 180	FL 450
J72	INW VORTAC via ABQ VORTAC to TXO VORTAC	INW VORTAC to TXO via INW 087 rad and ONM 270 rad to ONM thence via J-74.	FL 180	FL 450
J18	SJN VORTAC via ABQ VORTAC to LVS VORTAC	SJN VORTAC to LVS VORTAC via SJN VORTAC 057 rad and LVS VORTAC 233 VORTAC	FL 180	FL 450

Existing Reporting Point	Temporary Reporting Point	MRA
ABQ VORTAC	Tmpry ABQ Int—GNT VORTAC 076 rad and ONM VORTAC 347 rad	18,000

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

ABERDEEN

41st Edition, March 3, 1966

Add obstn 1613' MSL 45°48'46"N, 97°51'17"W. Add UNICOM Pierre arpt 44°23'N, 100°17'W.

•ALBANY

57th Edition, July 21, 1966

No hazardous changes.

ALBUQUERQUE

56th Edition, March 3, 1966

Add V291 awy Grants to Gallup (282°M from Grants). Delete Crownpoint VOR symbol and type in western border. Delete Waggoner arpt 35°42'N, 104°04'W. Delete Star Lake arpt 35°54'N, 107°28'W. Delete Sudan arpt 34°03'N, 102°31'W. Delete Barnett arpt 34°02'N, 102°49'W. Delete Rita Blanca arpt 36°02'N, 102°29'W.

•AROOSTOCK

43rd Edition, April 28, 1966

Add Loring AF VOR freq 115.0 ident LIZ class L mag var 22°W 46°50'10"N, 67°51'24"W. Delete Loring AF VOR 46°50'10"N, 67°51'24"W.

AUSTIN

61st Edition, April 28, 1966

Change Hood AAF twr freq from 118.6 to 126.2. Delete Allison Ranch arpt 30°34'N, 101°49'W. Delete Halbert Ranch arpt 30°35'N, 100°43'W. Delete RP Mayer Ranch arpt 30°35'N, 100°48'W. Delete Copeland Ranch arpt 30°43'N, 100°28'W. Delete Mayfield arpt 30°34'N, 100°48'W. Delete Mayfield Station B arpt 30°17'N, 100°14'W. Delete West Texas Boys Ranch arpt 31°20'N, 100°37'W. Delete Bruton arpt 30°54'N, 100°-48'W.

•BEAUMONT

55th Edition, March 31, 1966

Delete Franklinton arpt 30°50'39"N, 90°09'30"W. Add obstn 750' MSL 31°29'12"N, 91°21'42"W. Add obstn 364' MSL 30°07'54"N, 92°48'02"W. Add obstn 462' MSL 30°07'56"N, 91°46'25"W. Delete McDonald arpt 30°59'00"N, 92°36'00"W. Add obstn 331' MSL 30°04'15"N, 90°37'06"W. Add obstn 525' MSL 30°-50'41"N, 90°22'35"W. Delete Progress arpt 31°03'N, 90°19'W. Add obstn 336' MSL 30°08'27"N, 93°03'50"W. Add obstn 640' MSL 31°55'50"N, 91°00'34"W. Add obstn 1049' MSL 30°11'26"N, 93°53'08"W. Add UNICOM Jasper County arpt 30°53'N, 94°02'W. Add obstn 699' MSL 31°34'48"N, 94°38'03"W.

BELLINGHAM

53rd Edition, May 26, 1966

Add UNICOM Campbell River arpt 49°57'N, 125°16'W.

•BIRMINGHAM

61st Edition, April 28, 1966

Add UNICOM Stone Mountain arpt 33°48'40"N, 84°07'10"W. Change De Kalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 798' MSL 33°47'48"N, 87°20'32"W. Change Anniston RBn freq 329 to 278. Add obstn 702' MSL 31°54'55"N, 87°44'W. Delete Prattville RBn 32°-28'N, 86°25'W. Delete McDonough VORTAC 33°24'31"N, 84°10'32"W. Delete rotating bcn Martin Field 32°09'N, 87°27'W. Delete Talladega VOR 33°17'08"N, 86°05'10"W. Major awy changes E half of chart see latest C & GS Enroute Low Altitude chart.

BOISE

42nd Edition, May 26, 1966

Delete FM Eagle code ▬ ▬ ▬ ▬ 43°43'30"N, 116°26'-00"W.

•BOSTON

57th Edition, March 3, 1966

Add obstn 585' MSL 41°49'40"N, 71°22'09"W. Delete Lewiston non-federal RBn 44°02'56"N, 70°17'16"W. Add New Gloucester non-federal RBn freq 266 ident GLU Class MHW 43°59'13"N, 70°19'29"W. Extend efctv time of designation of R–4902 through Oct 31, 1966. Ctl twr decomsnd Devens AAF. Delete Peabody FM 42°30'55"N, 70°56'27"W. Add Pembroke RBn non-federal freq 251 ident PBR class MHW 43°10'57"N, 71°28'18"W. GCA decomsnd Hanscom ctl twr. Add UNICOM Hawthorne–Feather arpt 43°03'44"N, 71°54'20"W.

•BURLINGTON

46th Edition, April 28, 1966

Add obstn 430' MSL 45°04'42"N, 74°46'18"W. Delete Trenton RBn 44°03'13"N, 77°37'37"W. Delete Deseronto 44°11'N, 77°07'W.

•BUTTE

46th Edition, July 21, 1966

No hazardous changes.

CASPER

51st Edition, March 31, 1966

No hazardous changes.

•CHARLOTTE SECTIONAL CHART

58th Edition, April 28, 1966

Delete. Lumberton RBn 34°36'N, 79°04'W. Add 700' floor ctld airspace bounded on S by Asheville 1200' TA on NE by V185E on NW by V16S and on SW by V185. Add obstn 1411' MSL 36°04'12"N, 83°58'19"W. Add obstn 1209' MSL 34°59'54"N, 81°14'15"W. Add obstn 526'MSL 34°14'57"N, 80°36'26"W. Add obstn 570' MSL 35°41'25"N, 78°19'18"W. Delete Royston VOR 34°21'26"N, 83°05'27"W. Delete ctl twr freq 317 Spartanburg Downtown Mem. Delete ctl twr freq 209 Greenville-Spartanburg 34°54'N, 82°13'W. Change ctl twr freq 384.8 to 287.0 Donaldson Center. Major awy changes on this chart see latest C &GS Enroute Low Altitude charts.

•CHATTANOOGA

57th Edition, February 3, 1966

Add obstn 820' MSL 35°30'43"N, 88°52'06"W. Change DeKalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 885' MSL 35°55'12"N, 88°46'15"W. Add obstn 3049' MSL 34°45'06"N, 84°42'54"W. Add obstn 1004' MSL 34°51'28"N, 89°14'20"W. Add obstn 1434' MSL 34°16'11"N, 85°59'37"W. Add obstn 717' MSL 36°04'57"N, 87°50'04"W. Delete Oak Ridge arpt 36°02'N, 84°18'W. Add Harris VOR freq 110.4 ident HRS class L-BVOR mag var 0° 34°56'34"N, 83°54'57"W. Delete Van Hooser arpt 35°56'30"N, 85°49'00"W. Add obstn 1411' MSL 36°04'12"N, 83°58'19"W. Delete ctl twr freq 122.6 R NAS Memphis. Add obstn 916' MSL 34°47'11"N, 89°25'W. Major awy changes S & E of Muscle Schoals VOR see latest C & GS Enroute Low Altitude chart.

•CHEYENNE

54th Edition, June 23, 1966

Add obstn 4536' MSL 41°11'09"N, 103°03'05"W. Add obstn 4507' MSL 41°21'57"N, 102°58'24"W.

•CHICAGO

62nd Edition, May 26, 1966

Delete Carm arpt 43°45'N, 88°01'W. Add Sturgis RBn freq 380 ident IRS class MHW 41°49'N, 85°26'W. Delete ctl twr freq 342 at DuPage Co. Delete Berg arpt 40°33'N, 84°14'W. Add unicom Allen Co arpt 40°42'N, 84°02'W. Delete Goshen RBn 41°31'N, 85°52'W. Add obstn 1050' MSL 41°08'17"N, 87°53'46"W. Add obstn 1019' MSL 41°19'56"N, 88°49'30"W. Add obstn 1158' MSL 40°05'37"N, 85°42'52"W. Delete Prosperi arpt 41°33'N, 87°47'W.

•CINCINNATI

61st Edition, February 3, 1966

Add Matton VOR freq 109.4 ident MTO class T/BVOR mag var 3°E 39°28'40"N, 88°17'11"W. Delete Lairds arpt 39°40'25"N, 84°47'45"W. Delete Waco arpt 40°01'N, 84°13'W. Add ctl zone 5 mi radius Civic Memorial arpt 38°53'N, 90°03'W with 7 mi N & 8 mi E extsns ctl zone efctv 0700 to 2300 hrs daily. Add UNICOM Mettel arpt 39°41'N, 85°08'W. Add UNICOM Robinson arpt 39°00'45"N, 87°38'45"W. Twr comsnd Decatur arpt freq 118.9 39°50'N, 88°52'W. Relocate Terre Haute RBn from 39°30'N, 87°14'W to 39°23'16"N, 87°23'51"W freq 245 change ident HUF to HU class MHW/LOM. Add V313 Cape Girardeau to Centralia (191°M from Centralia), to Decatur to Pontiac. Add Madeira RBn freq 379 ident MDE class MHW 39°13'10"N, 84°21'25"W. Add obstn 1054' MSL 39°01'40"N, 87°45'29"W. Delete Beltzhoover arpt 39°21'N, 84°09'W. Relocate Springfield RBn from 39°46'19"N, 89°44'09"W to 39°46'23"N, 89°45'35"W freq 379 change ident SPI to SP class MHW/LOM. Add obstn 1130' MSL 39°37'23"N, 87°40'24"W. Add UNICOM Salem Muni arpt 38°36'N, 86°08'W. Add UNICOM St. Charles arpt 38°51'N, 90°30'W. Add Columbus RBn non-federal freq 375 ident CLU class MHW 39°05'54"N, 85°58'47"W. Add Salem RBn non-federal freq 400 ident SLO class MHW 38°38'38"N, 88°58'03"W. Delete Lunken RBn non-federal 39°07'N, 84°24'W (efctv 6–30–66). Delete Price arpt 39°32'N, 89°07'W. Add Munice VOR freq 113.7 ident MIE class L/BVOR mag var 0° 40°14'14"N, 85°23'38"W. Add UNICOM Freeman arpt 38°55'N, 85°54'W. Add obstn 929' MSL 39°45'23"N, 88°25'21"W.

•CLEVELAND

62nd Edition, May 26, 1966

Delete Norwalk arpt 41°16'00"N, 82°36'20"W. Delete Circle V arpt 41°05'N, 83°15'W. Delete Bedford (Cessna) arpt 40°05'30"N, 78°31'15"W. Add obstn 1395' MSL 40°50'17"N, 81°18'13"W. Add obstn 1814' MSL 40°39'45"N, 79°20'36"W. Delete UNICOM Butler-Roe arpt 40°51'N, 79°58'W. Delete Burke Lakefront SPB 41°30'45"N, 81°41'30"W. Delete UNICOM Ohio State University arpt 40°04'40"N, 83°04'30"W.

•CORPUS CHRISTI

57th Edition, July 21, 1966

No hazardous changes.

•DALLAS

63rd Edition, July 21, 1966

No hazardous changes.

DEL RIO

41st Edition, November 11, 1965

Add UNICOM PRESIDIO arpt 29°34'N, 104°22'W. Add obstn 2216' MSL 29°43'27''N, 10048'46''W.

DENVER

56th Edition, June 23, 1966

No hazardous changes.

DES MOINES

55th Edition, April 28, 1966

Delete Vander Wilt arpt 41°23'N, 92°48'W. Add obstn 1080' MSL 41°41'02''N, 91°30'16''W. Add obstn 1149' MSL 41°32'30''N, 91°16'36''W. Add UNICOM Maquoketa-Swift arpt 42°04'N, 90°45'W.

•DETROIT

61st Edition, July 21, 1966

No hazardous changes.

DOUGLAS

43rd Edition, October 14, 1965

Add Fort Huachuca Ariz ctl zone 5 mi radius Libby AAF arpt 31°35'N, 110°20'W with SE extsn. Delete Vail FM 32°04'N, 110°40'W. Change Douglas VOR freq from 110.0 to 108.8 VOR relocated from 31°30'47.1''N, 109° 40'15.7''W to 31°28'21.3''N, 109°36' 05.0'' W.

•DUBUQUE

51st Edition, March 31, 1966

Add control zone 5 mi radius Fairmont arpt with a NW and SE extsns ctl zone efctv by NOTAM's. Add UNICOM Denison arpt 41°59'N, 95°23'W. Change Ames RBn freq 257 to 275 41°59'40''N, 93°37'34''W. Add obstn 1484' MSL 43°37'45''N, 94°30'30''W. Add Charles City RBn freq 375 ident CCY class MHW 43°04'18''N, 92°36'35''W. Add obstn 1748' MSL 42°47'30''N, 96°06'05''W. Add UNICOM Maquoketa-Swift arpt 42°-04'N, 90°45''W.

•DULUTH

40th Edition, July 21, 1966

In northern border delete Graham LFR legs box & type.

ELKO

46th Edition, May 26, 1966

No hazardous changes.

EL PASO

55th Edition, March 3, 1966

Delete ILS Biggs AFB ctl twr 31°51'N, 106°23'W. Delete Mt Riley Ranch arpt 31°50'N, 107°05'W. Delete Valentine arpt 30°36'N, 104°30'W. Delete Jack Frost Ranch arpt 31°16'N, 105°36'W. Delete Worsham arpt 31°22'N, 103°31'W. Delete Sanderson arpt 30°08'N, 102°26'W. Delete Skevington Ranch arpt 30°20'N, 102°48'W. Delete Henderson Ranch #2 30°38'N, 102°43'W. Delete Coyanosa Flying Service arpt 31°17'N, 103°04'W.

FARGO

44th Edition, March 3, 1966

Add obstn 1718' MSL 46°16'10''N, 97°40'34''W. Add Fergus Falls VOR freq 110.4 ident FFM class T/BVOR mag var 8°E 46°17'23''N, 96°09'23''W.

GLACIER PARK

38th Edition, Octber 14, 1965

Delete Cameron Ranch arpt 49°55'N, 112°22'W. Add V536 airway from Great Falls to Kalispell (Kalispell lctn 48°12'50''N, 114°10'29''W).

GRAND CANYON

42nd Edition, May 26, 1966

No hazardous changes.

•GRAND JUNCTION

44th Edition, May 26, 1966

Delete awy bcn site #65 code • — • 39°03'55''N, 108°-44' 50''W.

•GREEN BAY

53rd Edition, May 26, 1966

Delete Valley arpt 44°08'N, 88°30'W. Add Iron Mountain VOR freq 111.2 ident IMT class L/BVOR mag var 1°E 45°48'59''N, 88°06'43''W. Add ctl zone 5 mi radius Ford arpt 45°49'N, 88°07'W with S, SE & W extsns ctl efctv by NOTAM's. Add V9 Green Bay to Iron Mountain to Houghton (348°M from Iron Mountain). Add V430 awy Escanaba to Iron Mountain to Ironwood (297°M from Iron Mountain). Add V9E awy Iron Mountain to Marquette (027°M from Iron Mountain). Add 700' Transition area 6 mi radius Otsego Co arpt 45°01'N, 84°42'W a 1200' transition area 8 mi N & 5 mi S of 087°T bearing from Otsego Co arpt to a point 12 mi E & the airspace 5 mi each side of 304°T bearing from the arpt to V193.

•HAWAIIAN ISLAND

18th Edition, December 9, 1965

Change Maui ctl twr freqs from 118.1 257.8 to 118.7 279.6. Delete ctl twr freq 278 at Hilo. Add obstn 6827′ MSL 20°47′N, 156°14′W. Delete ctl twr freq 278 Gen Lyman.

HUNTINGTON

55th Edition, February 3, 1966

Add UNICOM Connellsville arpt 39°58′N, 79°39′W. Delete Thomas arpt 39°35′N, 82°59′W. Delete Wilson arpt 38°55′N, 77°53′W. Add obstn 1375′ MSL 38°22′08″N, 81°49′14″W. Add UNICOM Newark Mun arpt 40°01′30″N, 82°27′30″W. Add obstn 1367′ MSL 39°38′04″N, 82°22′33″W. Change Lockbourne VOR freq 114.4 to 113.8. Delete Fairmont Mun arpt 39°27′N, 80°10′W. Delete Elsea arpt 39°37′N, 82°57′W. Delete Bedford (Cessna) arpt 40°05′30″N, 78°31′15″W. Add obstn 1876′ MSL 89°18′12″N, 80°18′37″W. Add obstn 1193′ MSL 39°18′13″N, 82°04′20″W. Delete UNICOM Stokes arpt 38°55′N, 78°15′W. Delete Myrtle arpt 39°42′N, 81°30′W. Delete Shady Springs arpt 39°47′N, 82°43′W.

JACKSONVILLE

54th Edition, April 28, 1966

Delete 77 SUNSWEET arpt 31°35′N, 83°34′W. Delete Monticello arpt 30°32′N, 83°53′W. Add obstn 462′ MSL 30°41′00″N, 83°19′02″W. Add obstn 1549′ MSL 31°08′05″N, 84°06′16″W.

•KANSAS CITY

57th Edition, February 3, 1966

Add obstn 1424′ MSL 39°44′42″N, 94°45′06″W. Add obstn 1240′ MSL 38°46′11″N, 92°17′38″W. Add obstn 1175′ MSL 38°24′47″N, 90°31′23″W. Add obstn 1087′ MSL 38°15′38″N, 93°47′47″W. Add obstn 968′ MSL 39°34′53″N, 90°47′52″W. Delete McConnell arpt 39°58′N, 92°11′W. Add ctl zone 5 mi radius Civic Memorial arpt 38°53′N, 90°03′W with 7 mi N & 8 mi E extsn ctl zone efctv 0700 to 2300 hrs daily. Add obstn 1300′ MSL 39°38′21″N, 93°33′27″W. Add obstn 1252′ MSL 38°38′57″N, 95°33′59″W. Add UNICOM Mexico Memorial arpt 39°09′N, 91°49′W. Add UNICOM St. Charles arpt 38°51′N, 90°30′W. Add obstn 1305′ MSL 38°57′11″N, 92°45′24″W. Add obstn 1390′ MSL 38°40′00″N, 93°15′10″W. Add UNICOM Marshall arpt 39°06′N, 93°12′W. Add obstn 1138′ MSL 38°57′21″N, 92°16′14″W. Delete Paola FM 38°36′N, 94°53′W. Delete Eastside arpt and add aband symbol & type 39°47′N, 94°48′W. Add obstn 1240′ MSL 38°23′25″N, 94°00′44″W. Add obstn 690′ MSL 38°49′49″N, 90°03′46″W. Delete Kansas City RBn 39°10′N, 94°37′W. Add obstn 850′ MSL 38°33′46″N, 90°05′14″W. Delete ctl twr freq 122.4R at Mid Continent.

KLAMATH FALLS

54th Edition, March 31, 1966

Add UNICOM Florence arpt 43°59′N, 124°06′W.

KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06′N, 119°46′W. Add Castlegar FM code — — — 49°19′N, 117°38′W.

•LA GRANDE

45th Edition, July 21, 1966

No hazardous changes.

LAKE HURON

41st Edition, May 26, 1966

Add obstn 1110′ MSL 44°54′46″N, 79°23′16″W.

LAKE SUPERIOR

43rd Edition, March 3, 1966

Add obstn 1110′ MSL 46°19′00″N, 85°30′48″W. Add UNICOM Manitowish Waters arpt 46°07′N, 89°53′W. Add obstn 1086′ MSL 46°21′18″N, 86°11′03″W. Delete Iron Mountain VOR in southern border also all awys from Iron Mountain to next station. Restore Iron Mountain VOR in southern border & all awys.

LAKE OF THE WOODS

38th Edition, August 19, 1965

Add obstn 1243′ MSL 48°50′38″N, 95°43′48″W Change Graham LFR to RBn ident & freq remain same change class BRAZV/P to BHV/P.

LEWISTON

45th Edition, April 28, 1966

Change Pennfield Ridge RBn freq 379 to 388. Delete Lewiston non-federal RBn 44°02′56″N, 70°17′16″W. Add New Gloucester non-federal RBn freq 266 ident GLU class MHW 43°59′13″N, 70°19′29″W. Add obstn 660′ MSL 44°35′25″N, 69°38′20″W. Add obstn 734′ MSL 43°55′53″N, 66°06′07″W. Add UNICOM Island Pond State arpt 44°47′25″N, 71°49′45″W.

LINCOLN

54th Edition, March 31, 1966

Correct elev Sieber arpt from 572 to 1572. Correct elev ELY arpt from 720 to 1720. Change obstn elev 2529′ MSL to 3030′ MSL 40°40′08″N, 97°10′47″W.

•LITTLE ROCK

50th Edition, July 21, 1966

No hazardous changes.

•LOS ANGELES

61st Edition, March 3, 1966

Delete ctl twr freq 257.8 at Meadows. Add obstn 400′ MSL UC 33°44′17″N, 118°23′48″W. Change Hawthorne ctl twr freq 257.8 to 385.5. Add Van Nuys VOR freq

113.1 ident VNY class L-VOR Mag var 15°E 34°13'25''N, 118°29'27''W. Relocate Ontario VOR from 33°56'11''N, 117°36'11''W to 33°55'06''N, 117°31'44''W adjust arwys and change freq 117.0 to 112.2. Change Palmdale AF Plant No 42 ctl twr freq 120.5 to 120.4. Delete ctl twr freq 126.2 Edwards AFB. Delete ctl twr freq 142.74 Los Alamitos NAS. Delete Buttonwillow arpt add Aband symbol 35°25'N, 119°28'W. Add UNICOM Morrow arpt 34°05'N, 117°22'W. Add UNICOM Fla-Bob arpt 33°59'N, 117°24'W. Delete ctl twr freq 242 Long Beach.

•MIAMI

53rd Edition, March 31, 1966

Add obstn 650' MSL 28°00'45''N, 81°45'45''W. Change Marathon RBn freq 360 to 260. Delete Keats arpt 27°34'38''N, 80°50'32''W. Delete Dressel arpt 27°15'58''N, 81°19'11''W. Add obstn 328' MSL 26°22'45''N, 81°22'03''W. Add obstn 248' MSL 26°56'27''N, 81°18'38''W. Add obstn 413' MSL 25°26'07''N, 80°19'51''W. Delete Hobbs arpt 26°47'N, 82°02'W. Delete Bob Paul arpt 26°41'N, 81°27'W. Add 700' Transition Area 5 mi radius of Lakeland arpt 27°59'N, 82°01'W and 5 mi NW 8 mi SE of Lakeland VOR bearing 233°T to 12 mi SW of VOR. Add obstn 297' MSL 25°44'58''N, 80°12'07''W. Twr comsnd Whitted arpt freqs 120.4 257.6 27°46'N, 82°38'W. Add obstn 1099' MSL 27°50'52''N, 82°15'48''W. Delete Evergladees arpt 25°51'N, 81°23'W.

MILES CITY

45th Edition, April 28, 1966

No hazardous changes.

•MILWAUKEE

60th Edition, May 26, 1966

Delete ctl twr freq 342 DuPage Co. Delete ctl twr freq 396 Kellog. Delete Carm arpt 43°46'N, 88°01'W. Twr comsnd Rock County arpt freqs 121.2, 122.7R. Add obstn 851' MSL 43°41'49''N, 83°58'48''W. Add UNICOM Cottonwood arpt 42°18'N, 89°08'W. Delete Air City arpt 42°41'N, 87°53'W. Add Sheboygan RBn freq 254 ident SBM class MHW 43°45'44''N, 87°51'03''W. Add obstn 891' MSL 42°06'15''N, 86°28'19''W. Add obstn 1340' MSL 43°01'31''N, 89°23'46''W. Add obstn 1126' MSL 42°27'34''N, 89°01'44''W.

MINOT

43rd Edition, March 3, 1966

Add obstn 1830' MSL 48°43'12''N 101°12'30''W. Add obstn 1310' MSL 48°25'30''N, 97°26'45''W.

•MOBILE

59th Edition, July 21, 1966

Delete DF Cairns AAF ctl twr 31°16'N, 85°43'W.

•MT. SHASTA

55th Edition, May 26,1966

Add UNICOM Garberville arpt 40°05'N, 123°49'W.

•MT. WHITNEY

57th Edition, June 23, 1966

Add obstn 2355' MSL 36°12'52''N, 115°09'18''W. Add UNICOM Gallaher arpt 36°16'N, 119°18'W.

•NASHVILLE

57th Edition, July 21, 1966

No hazardous changes.

•NEW ORLEANS

59th Edition, March 31, 1966

Add obstn 364' MSL 30°07'54''N, 92°48'02''W. Add obstn 462 MSL 30°07'56''N, 91°46'25''W. Add obstn 370' MSL 29°15'20''N, 89°21'24''W. Add obstn 501' MSL 29°16'26''N, 90°38'48''W. Change freq 109.4 to 113.5 Grand Isle VOR 29°10'N, 90°06'W. Add obstn 336' MSL 30°08'27''N, 93°03'50''W. Add obstn 1049' MSL 30°11'26''N, 93°53'08''W.

•NEW YORK

64th Edition, March 31, 1966

Add obstn 1062' MSL 40°37'13''N, 75°17'37''W. Add UNICOM Alexandria Field arpt 40°35'15''N, 75°01'00''W. Delete Old Star arpt 40°11'00''N, 74°52'45''W. Change Lancaster Control Tower freq 257.8 to 263.0. Change Westchester Co. ctl twr freq 350.2 to 241.0. Twr comsnd NAS Lakehurst East Field freq 142.74 and 340.2 40°01'30''N, 74°19'15''W. Change Olmstead AFB twr hours of opern to 0700-2300. Delete ctl twr freq 223 Allentown Bethlehem Easton. Add obstn 378' MSL 40°56'10''N, 72°39'12''W. Delete Radle arpt 40°24'48''N, 77°16'15''W. Delete Caka arpt 40°33'N, 74°54'W. Delete Pond Hollow Farm arpt 40°48'55''N, 75°08'00''W. Add ctl twr freq 241.0 NAS Lakehurst-Eastfield. Delete Mountain Bay arpt 41°23'N, 75°14'W. Add UNICOM Trumbull arpt 41°19'45''N, 72°02'45''W.

NORFOLK

58th Edition, March 3, 1966

Delete New Bern RBn 35°04'N, 77°02'W. Add obstn 365' MSL 35°41'50''N, 77°38'24''W. Add UNICOM Suffolk Mun arpt 36°40'N, 76°36'W. Delete ctl twr freq 317 Patrick Henry arpt 37°08'N, 76°30'W efctv 6-30-66. Add ctl twr freq 120.5 CGAS Elizabeth City.

•OKLAHOMA CITY

59th Edition, April 28, 1966

Add obstn 2770' MSL 35°25'25''N, 99°50'30''W. Delete aband apt symbol & type 34°14'N, 98°44'W. Add obstn 1357' MSL 34°23'28''N, 97°59'36''W. Delete Cowan arpt 34°29'N, 101°49'W. Delete Todd arpt 34°38'N, 101°57'W. Delete Savage arpt 34°20'N, 101°31'W. Delete Tri-State arpt 35°08'N, 101°48'W. Delete ctl twr freq 119.2 Clinton Sherman AFB 35°20'N, 99°12'W. Add obstn 1881' MSL 35°23'14''N, 97°29'56''W.

•ORLANDO

55th Edition, April 28, 1966

Add obstn 375′ MSL 28°36′50″N, 82°12′56″W. Add obstn 435′ MSL 28°48′40″N, 81°52′35″W. Delete Bruce arpt 28°43′N, 81°04′13″W. Add obstn 417′ MSL 28°00′49″N, 80°36′08″W. Delete Spuce Creek arpt 29°04′40″N, 81°02′41″W.

•PHOENIX

55th Edition, July 21, 1966

No hazardous changes.

•POCATELLO

51st Edition, March 31, 1966

Add Teton FM code • — • 43°33′05″N, 110°45′46″W.

PORTLAND

55th Edition, July 21, 1966

No hazardous changes.

•PRESCOTT

45th Edition, March 31, 1966

Delete Crownpoint VOR 35°52′54″N, 108°15′30″W. Delete Gallup RBn 35°30′25″N, 108°48′06″W. Add Grand Canyon 1200′ Transition area bounded by a line beginning at 36°00′N, 112°27′W to 36°05′N, 112°00′W to 35°42′N, 112°00′W to 35°42′N, 112°07′W to 35°38′N, 112°27′W to point of beginning. Delete UNICOM Clarke arpt 35°30′N, 108°47′W.

•RAPID CITY

44th Edition, June 23, 1966

Delete awy bcn site #2B 44°33′06″N, 106°42′28″W.

•RENO

46th Edition, June 23,1966

Ctl twr decomsnd Stead AFB fld clsd.

ROSWELL

55th Edition, June 23, 1966

No hazardous changes.

•SACRAMENTO

56th Edition, June 23, 1966

Ctl twr decomsnd Stead AFB fld clsd. Add UNICOM Garberville arpt 40°05′N, 123°49′W.

ST. LOUIS LOCAL CHART

34th Edition, February 3, 1966

Change mag var note to read 5°E.

SALINA

54th Edition, March 31, 1966

Delete Downs arpt 39°30′N, 98°33′W. Add obstn 1775′ MSL 38°38′16″N, 96°57′57″W. Add obstn 2338′ MSL 39°45′52″N, 99°18′15″W.

SALT LAKE CITY

53rd Edition, May 26, 1966

No hazardous changes.

•SAN ANTONIO

58th Edition, June 23, 1966

Add obstn 636′ MSL 29°59′33″N, 95°28′23″W.

•SAN DIEGO

59th Edition, March 3, 1966

Delete National City arpt 32°39′N, 117°06′W. Add obstn 400′ MSL UC 33°44′17″N, 118°23′48″W. Delete ctl twr freq 142.74 at MCAS Yuma. Change Hawthorne ctl twr freq 257.8 to 385.5. Add obstn 760′ MSL 33°51′29″N, 116°29′39″W. Delete UNICOM Heron arpt 33°36′N, 114°35′W. Relocate Ontario VOR from 33°56′11″N, 117°36′11″W to 33°55′06″N, 117°31′44″W adjust awys & change freq 117.0 to 112.2. Change Orange Co ctl twr freq 257.8 to 379.9. Delete ctl twr freq 382 MCAF Santa Ana Delete ctl twr freq 142.74 Los Alamitos NAS. Add UNICOM Morrow arpt 34°05′N, 117°22′W. Add UNICOM Fla-Bob arpt 33°59′N, 117°24′W. Delete ctl twr freq 242 Long Beach.

SAN FRANCISCO

59th Edition, June 23, 1966

No hazardous changes.

•SAVANNAH

59th Edition, March 3, 1966

Change Shaw RBn ident and code SW • • • • — — to SSC • • • • • • — • — • 33°55′N, 80°31′W. Restore 700′ floors to V154 and V185 between V70 and V157. Delete Dorchester Co arpt 33°11′N, 80°33′W. Add UNICOM Covington arpt 33°38′N, 83°51′W. Delete Church Branch arpt 33°31′N, 80°11′W. Add obstn 1900′ MSL UC 33°15′33″N, 82°17′09″W. Add obstn 1549′ MSL UC 32°28′11″N, 83°15′17″W. Major awy changes quarter of chart see latest C & GS Enroute Low Altitude charts.

SEATTLE

59th Edition, June 23, 1966

No hazardous changes.

•SHREVEPORT

51st Edition, June 23, 1966

Add obstn 856′ MSL 33°09′35″N, 94°56′12″W. Change ctl twr freq 119.7 to 118.9 at Gregg County.

SIOUX CITY

43rd Edition, May 26, 1966

No hazardous changes.

•SPOKANE

53rd Edition, June 23, 1966

Ctl twr decomsnd Larson AFB 47°12'34"N, 119°18'51" W. Delete Larson RBn 47°06'57"N, 119°16'24"W. Delete Larson FM code — — 47°06'57"N, 119°16'24"W. Delete Larson (AF) VOR 47°05'41"N, 119°15'41"W.

TRINIDAD

43rd Edition, March 3, 1966

Add obstn 4474' MSL 37°33'24"N, 102°26'19"W. Delete Rita Blanca arpt 36°02'N, 102°29'W.

•TULSA

57th Edition, April 28, 1966

Add obstn 1400' MSL 37°58'30"N, 92°53'36"W. Delete rotating bcn Bismarck arpt 37°45'N, 90°37'W. Add obstn 1835' MSL 36°10'02"N, 94°04'34"W. Delete Berryville arpt 36°22'N, 93°35'W. Add obstn 2400' MSL 36°-09'N, 93°14'53"W. Delete Red Bud arpt 36°16'N, 92° 29'W.

•TWIN CITIES

52nd Edition, April 28, 1966

Add obstn 1835' MSL 45°55'39"N, 90°27'42"W. Delete ctl twr freq 257 at Crystal. Change Minneapolis RBn ident MSP to MS class SABH to H/SAB/LOM 44°51'-28.1"N, 93°08'54.5"W to 44°49'33.1N, 93°05'27.6"W. Add Marshfield RBn freq 391 ident MFI class MHW 44°38'-28"N, 90°11'14"W. Add New Ulm RBn freq 272 ident ULM class MHW 44°19'25"N, 94°30'02"W.

WASHINGTON

63rd Edition, March 31, 1966

Change Andrews AFB/NAF ctl twr freq 126.2 to 118.4. Change Lancaster arpt ctl twr freq 257.8 to 263.0. Delete Du Pont arpt 38°38'N, 75°38'W. Delete ctl twr freq 121.3 at MCAS Quantico. Twr comsnd NAS Lakehurst-East Field freq 142.74 and 340.2 40°-01'30"N, 74°19'15"W. Change ctl twr freq 119.7 to 120.1 Dulles Intna. Add ctl twr freq 241.0 NAS Lakehurst-EastField. Delete Rutherford arpt 39°20'N, 76°45'W.

WICHITA

56th Edition, June 23, 1966

No hazardous changes.

•WILLISTON

40th Edition, July 21, 1966

No hazardous changes.

WINSTON-SALEM

57th Edition, March 31, 1966

Delete Griffins arpt 36°11'N, 79°53'W. Change Evington RBn freq 393 to 385. Change obstn elev 2049' MSL to 2420' MSL 36°32'N, 82°35'W. Add UNICOM Roanoke Mun 37°19'26"N, 79°58'33"W. Add obstn 1411' MSL 36°04'12"N, 83°58'19"W.

YELLOWSTONE PARK

43rd Edition, March 3, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

GADSDEN VORTAC: DME unusable beyond 20 nmi 140–195°.

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000′ MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000′ MSL 190–290°: below 7000′ MSL 320–345° and 005–035°; below 8000′ MSL 035–060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500′ MSL; 175–240°, 090–145° below 10,500′ MSL 040–090°. Below 14,000′ MSL 360–040°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000′ MSL beyond 40 nmi from 195–230°.

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000′ MSL 152–170° and 200–210° and beyond 6 nmi below 7000′ MSL 078–125°.

PRESCOTT VORTAC: VORTAC unusable beyond 40 nmi below 11,000′ MSL 145–155° and 175–200°; below 17,000′ MSL 200–225°; below 12,000′ MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 145–190°; below 14,000′ 190–255°; below 10,500′ MSL 350–145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL from 320–045°; below 16,500′ MSL 045–065°; below 15,000′ MSL 065–080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL 280–300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346–311° beyond 20 nmi below 3,500′ MSL; 312–345° beyond 15 nmi below 5,500′ MSL and beyond 30 nmi below 7,500′ MSL. MSL.

CALIFORNIA

AVENAL VORTAC: DME unusable beyond 40 nmi below 3000′ MSL 320–065° below 4000′ MSL, 065–095° below 4500′ MSL, 095–125° below 8500′ MSL, 125–170° below 7500′ MSL, 170–198° below 7000′ MSL, 195–230° below 8000′ MSL, 230–305° below 8000′ MSL.

BAKERSFIELD VORTAC: VOR portion 121° rad V165 to Arvin Int unusable below 4000′.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000′ MSL 324–018° below 9000′ MSL 189–217°, below 10,000′ MSL 175–189°, below 15,000′ MSL 277–324°.

BIG SUR VORTAC: DME unusable beyond 40 nmi below 8000′ MSL 085–120° below 7000′ MSL 120–130° below 6000′ MSL 290–320° and below 9000′ MSL 320–085°.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000′ and below 280–290° and 14,000′ and below 290–350°

FORTUNA VORTAC: DME unusable below 9500′ MSL 050–070° and below 5000′ MSL 150–200° beyond 40 nmi.

FRESNO VORTAC: DME unusable below 4000′ MSL 200–250°.

GLENDALE RBN: H facil unusable beyond 2 mi from 320–065° and from 130–235°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 265–290° and 15,000′ MSL 290–310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 265-310° below 10,500′ MSL 350–040°; below 5500′ MSL 125–155°; below 10,500′ MSL 155-170° below 14,500′ MSL 170–219°; below 31,000′ MSL 219–250°; below 25,000′ MSL 250–265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL from 135–180°, below 7000′ MSL from 268-290°. V-201 011° rad beyond 20 nmi below 9000′ MSL. DME unusable beyond 40 nmi below 3500′ MSL from 180-210°.

NAPA VORTAC: DME unusable beyond 40 nmi below 7500′ from 280–045°.

NEEDLES VORTAC: VORTAC unusable below 11,500′ MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: DME unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005–060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

•SAN LUIS OBISPO VORTAC: VOR unusable below 7000′ MSL beyond 7 nmi from 300–090°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unusable beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265–280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115–125°, beyond 15 mi from 125–135°, beyond 15 mi from 225–235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

TALLAHASSEE VOR: VOR unusable above 17,500′ MSL on 287 rad and beyond 50 mi on 090 rad.

GEORGIA

AUGUSTA VORTAC: VOR unusable 357–002°. Use Greenwood VOR 180° radial for V–185 between Augusta VORTAC and Greenwood VOR, MEA 2,300′ MSL.

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 135–156°, 285–315° and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115–210° below 2500′ MSL.

IOWA

•WATERLOO VORTAC: DME unusable beyond 15 nmi 335–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 288° rad beyond 34 mi above 18,000′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable in the following areas: 010–045° beyond 65 mi 45,000′ MSL, 000–026° beyond 10 mi below 18,000′ MSL, 026–045° beyond 22 mi below 3500′ MSL, 026–045° beyond 26 mi below 4500′ MSL, 026–045° beyond 28 mi below 5500′ MSL, 026–045° beyond 32 mi below 7500′ MSL, 045–360° beyond 26 mi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL.

MICHIGAN

ALPENA VORTAC: VOR unusable 360° clockwise to 065°. DME unusable 250° clockwise to 280° below 3500′ MSL beyond 30 nmi.

ESCANABA VOR: VOR unusable from 140–170°, 190–235°, 315–335° beyond 10 NM airway V7 Escanaba 216° rad change over point 10 NM SW Escanaba VOR.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–095° beyond 15 nmi below 6000′ MSL. 090–103° beyond 30 nmi below 4000′ 104–190° beyond 25 nmi below 3000′; 190–200° below 3000′; 200–330° beyond 25 nmi below 3000′; 331–036° beyond 25 nmi below 3500′.

•MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335–350° beyond 30 mi below 2,900′ MSL. DME unusable 200–290° beyond 30 nmi below 4000′ MSL, from 290350° beyond 30 nmi below 4500′ MSL, from 350–050° beyond 30 nmi below 4000′ MSL.

SAWYER VOR: VOR unusable 090–110° and 270–310°.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′. TACAN unusable below 14,500′ 265–275° within 40 nmi.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000′ MSL within 30 mi; 242–255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185–265° beyond 20 mi below 3,000′ MSL; 265–185° beyond 22 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3.500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252–260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000′ MSL.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177-200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200-259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235-290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

•SAN LUIS OBISPO VORTAC: VOR unusable below 7000′ MSL beyond 7 nmi from 300–090°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050-265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unustble beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265–280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115-125°, beyond 15 mi from 125–135°, beyond 15 mi from 225-235°, beyond 30 mi from 235–245°, beyond 20 mi from 245-255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

TALLAHASSEE VOR: VOR unusable above 17,500′ MSL on 287 rad and beyond 50 mi on 090 rad.

GEORGIA

AUGUSTA VORTAC: VOR unusable 357–002°. Use Greenwood VOR 180° radial for V–185 between Augusta VORTAC and Greenwood VOR, MEA 2,300′ MSL.

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 135–156°, 285–315° and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115–210° below 2500′ MSL.

IOWA

•WATERLOO VORTAC: DME unusable beyond 15 nmi 335–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 288° rad beyond 34 mi above 18,000′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable in the following areas: 010–045° beyond 65 mi 45,000′ MSL, 000–026° beyond 10 mi below 18,000′ MSL, 026–045° beyond 22 mi below 3500′ MSL, 026–045° beyond 26 mi below 4500′ MSL, 026–045° beyond 28 mi below 5500′ MSL, 026–045° beyond 32 mi below 7500′ MSL, 045–360° beyond 26 mi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL.

MICHIGAN

ALPENA VORTAC: VOR unusable 360° clockwise to 065°. DME unusable 250° clockwise to 280° below 3500′ MSL beyond 30 nmi.

ESCANABA VOR: VOR unusable from 140–170°, 190–235°, 315–335° beyond 10 NM airway V7 Escanaba 216° rad change over point 10 NM SW Escanaba VOR.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–095° beyond 15 nmi below 6000′ MSL. 090–103° beyond 30 nmi below 4000′ 104–190° beyond 25 nmi below 3000′; 190–200° below 3000′; 200–330° beyond 25 nmi below 3000′; 331–036° beyond 25 nmi below 3500′.

•MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335–350° beyond 30 mi below 2,900′ MSL. DME unusable 200–290° beyond 30 nmi below 4000′ MSL, from 290350° beyond 30 nmi below 4500′ MSL, from 350–050° beyond 30 nmi below 4000′ MSL.

SAWYER VOR: VOR unusable 090–110° and 270–310°.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′. TACAN unusable below 14,500′ 265–275° within 40 nmi.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000′ MSL within 30 mi; 242–255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185–265° beyond 20 mi below 3,000′ MSL; 265–185° beyond 22 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3.500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252–260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000′ MSL.

BUTTE VORTAC: VORTAC unusable following areas: 005–120° beyond 20 nmi below 10,000′ MSL; and 120–325° beyond 20 nmi below 11,000 MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250–030° beyond 25 mi below 10,500′ MSL, 030–250° beyond 25 mi below 12,000′ MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235–245° beyond 10 mi below 6,800′ MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360–065° beyond 20 mi below 10,000′ MSL; 065–090° beyond 25 mi below 11,000′ MSL; 110–120° beyond 20 mi below 16,000′ MSL; 120-240° beyond 20 mi below 10,000′ MSL; 240-320° beyond 25 mi below 10,000′ MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000′ MSL.

MALMSTROM VOR: VOR unusable 250-280° beyond 15 nmi below 7000′ MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345–060° beyond 15 mi; 060–095° beyond 31 mi below 12,000′ MSL; 095–165° beyond 20 mi below 10,000′ MSL; 165–270° beyond 20 mi below 12,000′ MSL; 285–315° beyond 20 mi below 12,000′ MSL; 315–345° beyond 20 mi; VOR below 11,000′ MSL DME below 14,000′ MSL. Possible momentary VOR flag activity on V-2 nine miles E of MSO VORTAC. Vertify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360–040° beyond 30 mi below 14,500′ MSL; 040–055° beyond 30 mi below 12,000′ MSL; 120–160° beyond 30 mi below 14,500′ MSL; 215–230° beyond 20 mi below 14,500′ MSL; 230–285° beyond 35 mi below 14,500′ MSL; 285–360° beyond 30 mi below 13,500′ MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36–55 mi below 3,600′ MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285°.

BEATTY VORTAC: VOR restricted below 8000′ beyond 27 nmi, 060-360°; below 10,000′ beyond 10 nmi, 360–060°.

COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced comerage. DME unusable beyond 15 nmi below 14,000′ MSL 065-075°; below 17,000′ MSL 150-235°; below 16,000′ MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245-260°; 30 nmi 260-290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240-320°; below 14,000′ MSL 170–220° and 320-340°; below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010-120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,500′ MSL from 220° to 255°, below 14,500′ MSL from 255° to 270°, below 16,000′ MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000′ MSL from 055 to 100°; 14,000′ MSL from 100 to 110°; 17,000′ MSL from 110 to 135°; 16,000′ MSL from 285 to 340°.

RENO RBN: H facility unusable 170–270° beyond 20 nmi, 270°–300° beyond 30 nmi and 300–010° beyond 23 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000′. DME unusable below 14,500′ beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500′ MSL beyond 40 nmi from 020–075° and 220–235°.

SPARKS RBN: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH VORTAC: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000′ MSL 005–030°; below 22,500, 185–210°; below 15,000, 335–350°; and below 12,000′, 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000′.

LEBANON VOR : VOR unusable 110–115° beyond 35 mi below 6,900′ MSL.

NEW JERSEY

ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1500′ MSL.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000′ MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000′ MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000′ MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500′ MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000′ MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000′ MSL: 001–025° beyond 20 nmi below 13,300′ MSL; 150–175° beyond 30 nmi below 10,500′ MSL; 176–210° beyond 20 nmi below 10,500′ MSL; 240–265° beyond 35 nmi below 10,700′ MSL; unusable 001–010°.

SANTA FE VORTAC: VOR unusable 015–030° beyond 30 mi at MEA.

NEW YORK

ALBANY VORTAC: VOR unusable 115–135° beyond 10 mi.

BINGHAMPTON RBN: Erratic ADF action 4–13 mi SSE of facility at 3,500′ MSL.

CANARSIE VOR: VOR unusable 060–095° beyond 15 mi below 4,000′ MSL.

DEER PARK VORTAC: VOR unusable following areas: 070–180° beyond 35 mi below 1,700′ MSL; 180–240° beyond 30 mi below 1,700′ MSL; 240–350° beyond 25

mi below 2,200′ MSL; and 350–040° beyond 30 mi below 2,200′ MSL.

DUNKIRK VOR: VOR unusable 120–180° beyond 22 mi below 4,000′ MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500′ MSL in following areas: 115–140° beyond 35 mi; 140–160° beyond 30 mi; 160–180° beyond 35 mi; 190–210° beyond 30 mi; and 210–215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305–315° beyond 35 mi below 7,000′; 315–350° beyond 30 mi below 8,000′.

HAMPTON VORTAC: DME unusable following areas: 280–325° beyond 35 mi below 1,700′ MSL; and 325–355° beyond 30 mi below 2,000′ MSL.

HUGUENOT VORTAC: VOR unusable 210–230° beyond 20 mi below 6,500′ MSL.

ITHACA VOR: VOR unusable 360–150° beyond 25 mi below 3,800′ MSL.

•KENNEDY VORTAC: VOR unusable below 1,500′ MSL in the following areas: 015–030° beyond 30 mi; 030–045° beyond 26 mi; 060–075° beyond 24 mi; 075–100° beyond 30 mi; 100–150° beyond 28 mi; 150–165° beyond 30 mi; 165–215° beyond 30 mi; 215–270° beyond 26 mi; and 350–015° beyond 35 mi. VOR unusable below 2,000′ MSL in following areas: 045–060° beyond 24 mi; 270–340° beyond 26 mi; and 340–350° beyond 30 mi. DME unusable within 9 nmi of VORTAC.

KINGSTON VOR: VOR unusable 045–050° beyond 35 mi below 4,300′ MSL and 070–140° beyond 30 mi below 3,400′ MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015–025° beyond 20 mi below 1,900′ MSL; 025–045° beyond 35 mi below 2,700′ MSL; 065–075° beyond 30 mi below 1,700′ MSL; 075–135° beyond 25 mi below 1,700′ MSL; 135–145° beyond 35 mi below 1,700′ MSL; 165–205° beyond 15 mi below 1,700′ MSL; 205–215° beyond 35 mi below 1,700′ MSL; 215–220° beyond 30 mi below 1,700′ MSL; 220–230° beyond 25 mi below 1,700′ MSL; 230–240° beyond 30 mi below 1,700′ MSL; 240–250° beyond 20 mi below 1,700′ MSL; 250–260° beyond 10 mi below 2,500′ MSL; 260–270° beyond 20 mi below 1,700′ MSL; 270–285° beyond 25 mi below 1,800′ MSL; 285–295° beyond 30 mi below 2,700′ MSL; 295–305° beyond 35 mi below 2,700′ MSL; 315–325° beyond 35 mi below 3,200′ MSL; 325–005° beyond 25 mi below 2,700′ MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260–270° beyond 35 mi below 6,000′ MSL.

ROCHESTER VOR: VOR unusable 045–065° beyond 12 mi.

SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360–015° below 5000′ MSL; 015–025° below 4500′ MSL; 025–100° below 5000′ MSL; 100–165° below 9000′ MSL; 165–180° below 7000′ MSL; 180–190° below 6500′ MSL; 190–200° below 7000′ MSL: 200–220° below 6000′ MSL; 220–240° below 5000′ MSL: 240–295° below 5500′ MSL; 295–305° below 7000′ MSL: 305–360° below 4500′ MSL.

NORTH CAROLINA

CHARLOTTE VORTAC: VOR unusable 360–055° except 005° rad unusable beyond 20 nmi.

ELIZABETH CITY VOR: VOR unusable 026–042° and 085–100° all altitudes; 276–312° below 5000′ MSL. Use Franklin VOR 130° radial for V–290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500′.

GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290–320° and 100–190°.

GREENSBORO VORTAC: VOR unusable 350–010° beyond 30 mi.

NORTH DAKOTA

DICKINSON VORTAC: VOR unusable 090–120° between FL 180 and FL 310 beyond 40 mi. GTF Center RADAR service available.

RED RIVER VOR: VOR unusable 135–165° and 228–280°.

OHIO

AKRON VORTAC: VOR unusable 030–080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500′ MSL.

BELLAIRE VORTAC: VOR unusable 325–345° below 6000′ MSL.

BRIGGS VORTAC: VOR unusable 330–010°, 120–145° and 305–325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033–070°, 085–135°, 155–225°, 250–280° and 295–023°.

STRONGSVILLE VOR: VOR unusable 080–200° beyond 35 nmi.

OREGON

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000′ MSL 020–085°; 18,000′ MSL 085–120°; 12,000′ MSL 190–340°; 14,000′ MSL 340–020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 600′ MSL 150–170°; 6000′ MSL 320–350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000′.

REDMOND VORTAC: VORTAC unusable below 11,000′ MSL 190–210′; below 13,000′ MSL 210-240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215-285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020–060° beyond 26 mi below 3,500′ MSL.

ALTOONA VOR: VOR unusable in the following areas: 070–100° beyond 18 mi below 3,500′ MSL; 100–160° beyond 30 mi below 3,500′ MSL; 200–310° beyond 30 mi below 4,500′ MSL; 310–350° beyond 15 mi all altitudes; 350–010° beyond 30 mi below 4,000′ MSL.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VOR: VOR unusable 070–085° beyond 10 mi at MOCA.

CLARION VOR: VOR unusable 215–223°.

HARRISBURG VORTAC: VOR unusable in following areas: 105-140° beyond 26 mi; 140-165° beyond 30 mi; and 195-230° beyond 28 mi. DME unusable 325-360° beyond 30 mi; and 360-025° beyond 35 mi.

IMPERIAL VORTAC: VOR unusable 150-170° below 8,000′ MSL and 345-360° below 14,500′ MSL.

LANCASTER VOR: VOR unusable in following areas: 190-220° beyond 25 mi below 3,000′ MSL; 220-250° beyond 25 mi below 4,000′ MSL; 320-340° beyond 15 mi below 5,000′ MSL; 320-340° beyond 25 mi below 6,000′ MSL.

LATROBE VOR: VOR unusable beyond 20 mi.

SELINSGROVE VORTAC: VOR unusable in following areas: 105-115° beyond 26 mi below 3,000′ MSL; 210-230° beyond 35 mi below 2,500′ MSL; and 250-285° beyond 26 mi below 3,400′ MSL. DME unusable 100-115° beyond 30 mi below 3,000′ MSL; 115-170° beyond 35 mi below 2,900′ MSL; 190-300° beyond 35 mi below 3,500′ MSL.

YARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250-265° beyond 17 mi; 265-280° beyond 10 mi; and 280-290° beyond 17 mi. DME unusable 225-275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

PROVIDENCE VORTAC: VOR and DME unusable 220-310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

ALLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

FLORENCE VORTAC: VOR unusable 360-010° beyond 20 mi below 5000′ MSL.

MYRTLE BEACH VOR: VOR unusable 220-245° beyond 15 nmi below 2500′ MSL; 350-015° beyond 10 nmi below 5000′ MSL.

TEXAS

AMARILLO VORTAC: DME unusable 110-235° beyond 15 NM below 7000′ MSL.

AUSTIN VORTAC: VOR unusable 260-320° beyond 35 mi below 3,500′ MSL.

EL PASO VORTAC: DME unusable 265-300′ beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085-210° beyond 35 mi below 2,500′ MSL.

SALT FLAT VORTAC: VORTAC unusable 031-049° beyond 30 NM below 15,000′ MSL. (3-17)

UTAH

CEDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi 090-125° and beyond 35 nmi 125-150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040-080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330-005° and below 13,500′ MSL beyond 40 nmi from 170-200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180-220°; below 12,000′ MSL 280-310°; below 11,000′ MSL 310-330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025-115°, 30 nmi, 235-330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360-055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010-035°; below 16,000′ MSL 035-050°; below 15,000′ MSL 275-285°; below 14,000′ MSL 285-295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010-020°; below 20,000′ MSL 020-030°; below 23,000′ MSL 030-060°; below 24,000′ MSL 060-080°; below 19,000′ MSL 080-095°; below 17,000′ MSL 095-125°; below 16,000′ MSL 125-140°; below 16,000′ MSL 195-210°; below 10,000′ MSL 280-290°; below 16,000′ MSL 350-010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220-260°.

VERMONT

BURLINGTON VOR: VOR unusable 080-155° beyond 30 mi below 9,000′.

MONTPELIER VOR: VOR unusable 205-280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230-270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360-010° beyond 5 nmi, 010-020° beyond 10 nmi, 020-030° beyond 20 nmi, 030-040° beyond 10 nmi, 040-060° beyond 20 nmi, 190-210° beyond 5 nmi, 230-240° beyond 20 nmi, 240-300° beyond 5 nmi, 310-330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050-075° beyond 30 mi; 075-095° beyond 20 mi; 105-120° beyond 35 mi; and 165-215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355-010° beyond 18 nmi below MEA 030-070° beyond 20 nmi below MEA 170-190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215-250° beyond 8 mi below 1,800′ MSL and 215-270° between 14,500-18,000′ MSL.

LINDEN VORTAC: DME unusable 140-180° beyond 25 mi below 3,500′ MSL and 180-225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110-220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 280-360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130–150°, 4500′ MSL and 150–290°. 4000′ MSL. VOR intermittent roughness may be observed on V–23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RBN: H facil unusable 100–130° below 6500′ MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280°. VOR 348° rad unusable below 4500′ VOR intermittent roughness may be observed on V287, 148° rad below 7000′ from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270°. Coverage within R–6715 from 270–320° not flt checked.

PORT ANGEL8S VOR: VOR coverage 40 nmi; 220–110° at 7000′; 110–140° at 14,500′; 140–150° at 20,500′; 150–170 °at 29,000′; 170–190° at 20,500; 190–220° at 16,000′.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000′ MSL from 158–165° beyond 20 nmi below 12,000′ MSL from 305–355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000′ MSL and beyond 50 nmi below 18,000′ MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000′, 355–020° and 148–176°; below 7500′ from 130–150°; below 10,500′ from 020–060° and 110–130°; below 12,700′ from 065–110°.

WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000′ MSL 000–020° beyond 30 nmi below 20,000′ MSL 020–075° beyond 40 nmi below 14,000′ MSL 075–090° below 18,000′ MSL 090–190° below 19,000′ MSL 190–240°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325–350° beyond 20 mi below 5,000′ MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100–150° and 230–060° beyond 20 mi below 3,300′ MSL.

MADISON, TRAUX RDO: Truax VOR unusable within 10 mi above 7000′ MSL.

TIMMERMAN VOR: VOR unusable 300–310° beyond 35 mi below 3,400′ MSL.

WAUSAU VORTAC: DME unusable 300–310° beyond 30 nmi below 3000′ MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion on V–85 20–25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

•JACKSON VOR: VOR restricted to awy, holding and apch rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000′ MSL 160–175°; below 15,000′ MSL 175–200° and below 16,500′ MSL 200–230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexander, La. (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Alliance, Nebr.: 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

●**Battle Creek, Mich.:** 262°; 11 mi from VORTAC over power house stacks 1 mi E of Comstock, Mich.; 2000′.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16-34; 1000′ MSL.

Bemidji, Minn: 131°; over apch end rnwy 13; 1800′.

Big Spring, Tex.: 199°; over the rdo bcn; 1000′ AGL.

Billings, Mont: 073°; over int of rnwys 22-27; 4600′.

Blackstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 1500′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Blytheville, Ark.: 094°; over hangar adj to Admin Bldg.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brainerd, Minn.: 294° over centerline apch end rnwy 30; 1800′.

Brownwood, Tex.: 169°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

Burlington, Iowa: 296°; over rdo twr 8 nmi NNW Burlington Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

Butte, Mont.: 094°; intersection of rnwy 29-33; 6500′.

Cape Girardeau, Mo.: 032°; over smoke stack 3.2 NM NNE; 1700′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21-25-30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.; 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

Crestview, Fla. 106°; over rot bcn twr; 300′.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over metal hangar.

Cut Bank, Mont: 311°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 and 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Decatur, Ala. (Pryor): 092°; over intersection of rnwy and taxiway 236° from HSV; 1000′.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Des Moines, Iowa: 293°; over grain elev Cummings, Iowa; 2000′; 5.5 NM from VOR.

Devils Lake, N. Dak.: 178°; 7.2 nmi over 2087′ MSL rdo twr; 2600′.

Dublin, Ga. (Municipal): 067°; over SW end NE/SW rnwy.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin): 228°; trml bldg E side of arpt.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

El Paso, Tex.: 232°; over water twr, 2 mi SE of arpt; 5000′.

El Toro MCAS, Calif (Orange City): 254°; over int rnwys. 19R and midfld txwys; 200′.

Emporia, Kans.: 047°; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evansville, Ind. (Dress Memorial): 056°; 13 miles over intersection E/W and NE/SW runways; 2000′.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR; 2300′.

Fayetteville, Ark.: 183°; VORTAC; white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; over water twr at Parktown, N.C. 8.0 nmi; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

Flint, Mich (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E–W hvy dist 4.9 nmi from transmitter.

Fort Smith, Ark.: 232°; water tank at N edge of arpt; 1300′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800′.

Fulton, Ga.: 288° over water tank 2.4 NM NW side of arpt; 2000′ MSL.

Gage, Okla.: 094°; over LFR; 3000′.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nmi; 4000′.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE–VOR; 2000′.

Grand Island, Nebr.: 142°; over smoke stack 5.5 nmi from VOR; 3100′.

Grand Junction, Colo. Walker Fld): 059°; int rnwys 29 and 22; 6500′.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000′.

Greeley, Colo. (Weld Co. Arpt): GLL 204°; over int rnwy 12 and E/W twxy; 6100′.

Hallsville, Mo.: 225°; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hastings, Nebr.: 266°; 11 nmi over RR crossing in center of town of Kenesaw; 3200′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt 10 nmi, 800′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C.: 225°; over end rnwy 24.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 20 nmi from the VOR.

Hobart, Okla.: 352°; centerline of N/S rnwy 100′ above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County): 030°; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Hutchinson, Kans.: 033°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Iowa City, Iowa: 019°; over arpt bcn; 2000′.

Jack's Creek, Tenn. (McKellar) : 267°; over bcn twr above arpt 27.5 NM; 1500'.

Jackson, Miss. (Hawkins): 189°; over int rnwys 11-29 and 34-16. 10.8 nmi

Janesville, Wis. (Rock Co. Arpt) : 034°; over center of apch end of rnwy 04; 1600'.

Jefferson City, Mo.: 123°; 9.1 NM over hwy bridge on Osage rvr; 2500' MSL.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500'.

Kalispell, Mont (Flathead Co. Arpt): 314°; apch end rnwy 9; 4000'.

Kearney, Nebr: 215°; over rdo twr KGFW, 4.8 NM SW of arpt; 3000'.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600'.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500'.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000'.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800'.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100'.

Lake Charles, La. (Mun) : 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni) : 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal) : 025°; over water twr and rotating lgt bcn on arpt. 17.0 nmi from HBG VOR, 800'.

Lawrenceville, Va.: 123°; over arpt bcn; 1500'.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200'.

Lexington, Ky. (Blue Grass) : 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500'.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

•**Litchfield, Mich.:** 050°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000'.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700'.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500'.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun) : 246°; 4.0 nmi from VOR over water tank; 2000'.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun) : 341°; over former USAF arpt ctl twr E side 17-35 rnwy. 5.0 nmi; 1500'.

Manhattan, Kans. (Mun): 062°; 6 nmi over RR bridge SE; 2,500'.

Manitowoc: 162°; over Manitowoc Portland Cement Co. Stack 1.9 mi; 1900'.

Marion, Ill: 274°; int rnwys 6-24 and 18-36 at Southern Arpt; 12 NM W; 1000'.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000'.

Marshall, Mo. (Meml) : 321° BWR; over MHL VORTAC Bldg; 2000'.

Massena, N.Y. (Richards) : 297°; Admin Bldg; 1500'.

Maxwell, Calif. (Willows-Glen Co. Arpt): 342°; over apch end rnwy 34; 600'.

McComb, Miss. (Pike County) : 248°; revolving arpt bcn.

McCook, Nebr.: 311°; 8.5 nmi over int of E/W and NW/SE rnwys; 3500'.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000'.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650'.

Midland, Tex. (Air Trml) : 170°; over apch ends of rnwys 22 and 28; 1000'.

Millinocket, Me. (Mun) : 317°; over FSS Bldg; 1500'.

Minneapolis, Minn. (Crystal Arpt) : 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500' nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900'.

Montebello, Va. (Preston Glenn near Lynchburg, Va.) : 192°; intersection all rnwys: 3500'.

Montgomery, Ala. (Dannelly) : 319°; over water twr, distance 6.1 nmi from VORTAC.

Monticello, Ark.: 329°; 4.7 NM bcn twr.

Muskegon, Mich. (County) : 256°; over Muskegon LFR; 1500'.

Myrtle Beach, S.C. 061°; over apch end rnwy 5 Crescent Beach Arpt.; 500'.

Napa, Calif.: 046°; over arpt bcn; 500'.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi NE of the DuPage County Arpt; 2000'.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iowa; 2500'.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

New Bern, N.C.: 259°; Int of E/W rnwys Oak Grove (navy) arpt.

New Orleans, La. (Lakefront Arpt) : 081°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton, Nebr.; 2600'.

North Bend, Oreg.: 254°; intersection rnwy 22-31; 750'.

Nortth Platte, Nebr. (Lee Bird) : 083°; over water twr Brady, Nebr.; 4000'.

Oklahoma City, Okla. (Wiley Post) : 041°; OKC VOR int rnwys 17-35 and 12-30; 1800'.

Omaha, Nebr. (Eppley Fld); 310°; centerline of SE end of NW/SE rnwy.

O'Neil, Nebr.: 117°; at intersection of E/W road and the railroad ½ nmi SE of Inman, Nebr.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 3.5 nmi from VOR.

Ottumwa, Iowa (Mun) : 303°; int of rnwys 32 and 22.

Park Rapids, Minn.: 208°; over northern most of two twrs 5.2 nmi; 2100'.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Co. Arpt; 2200'.

Philip, S.D.: 156°; over 2712' twr 5 nmi from VOR; 3300'.

Phoenix, Ariz.: 256°; centerline rnwy 8R-26L; 2800'.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar at Southern Pines, Pinehurst-Southern Pines Arpt.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4–22 and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500′.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450′.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800′.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

Presque Isle, Me.(AFB): 184°; Spragueville LFR site; 2000′.

Princenton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo, Colo. (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).

Quitman, Tex.: 241°; water tank, town of Alba, Tex.

Rawlings, Wyo. (Muni): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300′.

Raymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500′.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000′.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

•**Roberts, Ill.:** 074°; over int E/W highway, N/S RR ½ mi N Buckley, Ill; 1600′.

Rochester, Minn.: 024°; int rnwys 13–31 and 2–20 8.5 NM; 3000′.

Roswell, N. Mex.: 027°; over apch end rnwy 3; 4000′.

Royston, Ga.: 067°; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt; 1250′.

Russell, Kans.: 092°; over water twr in center of town of Wilson, Kans.

Sacramento, Calif.: 015°; apch end rnwy 02; 100′.

Saginaw, Mich. (Tri-City): 058°; 6.7 mi NE of MBS VOR over hwy int US #10 and I 75; 1700′.

St. Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

Salina, Kans.: 117°; over grain elevator town of Kipp 10 nmi; 2500′.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

Samsville, Ill.:064°; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

Sault Ste. Marie, Mich. (Mun): 336°; int E–W and NW/SE rnwys; 2100′.

Sayre, Okla. (Mun): 175°; over rot bcn twr; 3000′.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 4.9 nmi; 4500′ MSL.

Shreveport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.

Shreveport, La. (Greater Shreveport): 175°; over the Admin Bldg.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000′.

Sulphur Springs, Tex.: 229°; over awy bcn lgt on SE corner of arpt.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over center of segmented circle on Anniston, Ala. Arpt.; 2000′ MSL.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 122°; over int rnwys 13–31 and 4–22; 1000′.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

Thief River Falls Minn.: 124°; over RR & hiway crossing adj Hazel, Minn.; 2000′.

Thurman, Colo: 351°; in flt over Akron VOR transmitter site; 5600′.

Toccoa, Ga.: 179°; over arpt bcn; 1500′.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S–E/W rnwys; 1600′.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

Vienna, Ga. (VORTAC): 226°; over center of NE/SW rnwy, Cordele, Ga., Arpt.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.

Wichita, Kans.: 162°; centerline of NW end of NW/SE rnwy.

Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml): 011°; at bridge over Red River 8 nmi N of Sheppard AFB; 1500′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11: 2600′.

Willmar, Minn.: 289°; over twr at Pennock, Minn.; 2200′

Wilmington, N.C. (New Hanover Co.): 204°; over wea radar ant on arpt 5.5 nmi; 1000′.

Wink, Tex. (Winkler Co.): 149°; over int rnwy 22 and 13 5.9 nmi VOR; 3818′.

Winner, S.D. (Mun): 201°; over center of race track 7.8 nmi; 3000′.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C.: 295° (GSO VOR): over ctl twr.

Worland, Wyo. (Municipal) : 010° Boysen Reservoir VORTAC; over taxi strip between Trml Bldg and rnwy 16–34; 5200'.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800'.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600'.

Yankton, S.D.: 257°; 7 nmi over twr; 2500'.

Yuma, Ariz. (MCAS/Yuma Intl) : 166°; centerline rnwy 17–35; 400'.

GROUND

Aberdeen, S. Dak. (Saunders) ; 304°; midway and center of N/S taxi strip leading from S edge ramp on E side arpt.

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld) : 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun) : 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton) : 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN) : 207°; lctd 985' SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt) : 002°; S–end on curve of taxiway 50' W apch end rnwy 35 centerline.

Anderson, S.C. (Mun) : 039°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun) : 042°: adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) NAFEC: Lctn #1—313°; on runup pad at apch end rnwy 13, 250' from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500' from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250' from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250' from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l) : Lctn #1–293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400' N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips) : Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County) : 051°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County) : 140°; ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County) : 077°; 400' S of ctl twr on S ramp south.

Bismarck, N. Dak: 275°; N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.) : 048°; on ramp 500' in front of FSS Bldg.

Boise, Idaho (Air Trml) : 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County) : 023°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City) : 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl) : 248°; apch end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and twr bldg on ramp.

Cedar Rapids, Iowa; 080°; rnwy runup pad apch end rnwy 13.

Chanute, Kans.: 051°; apch end rnwy 12.

Chattanooga, Tenn. (Lovell) : 332°; centerline S taxiway at point 175' NE of centerline rnwy 32.

Cheyenne, Wyo.: 200°; on yellow line on taxi strip immediately SE or apch end rnwy 8.

Chicago (West Chicago), Ill. (Du Page Co.) : 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; intersection of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp on Easterwood Arpt.

Columbia, S.C. (Owens Fld) : 022°; compass rose on parking ramp.

Columbia, S.C. (Mun): 332°; 6 NM E/W taxiway (parallels rnwy 10–28).

Columbus, Ga. (Muscogee Co.) : 145°; pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County) : 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati) : 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM–TPA) : 300°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison) : 159°; intersection of center and parallel taxiways.

Danville, Va. (Mun) ; 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/SE rnwy.

Dothan Arpt, Ala: 334°; on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl) : 160°; int of SW ramp and txwy T–2.

Dubuque, Iowa: 332°; on ramp at Term. Bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 3 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld) : 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler) : 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150' W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS) : Lctn #1—028°; lctd on taxiway leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–23.

Elmira, N.Y. (Chemung County) : 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Erie, Pa. (Erie-Port Erie) : 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet) : 068°; apch to apron immediately W of the Amin Bldg.

Florence, S.C.: 235°; on taxiway W of the end of rnwy 18.

Fort Benning, Ga. (Lawson AAF) : Lctn #1—021°; run up area on txwy at apch end of rnwy 20. Lctn #2—130°; run up area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt) : 120°; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page) : 172°; N side of Trml ramp.

Fort Riley, Kans (Marshall AAF): 032°; on parking ramp adj to radar antenna.

Fort Rucker, Ala. (Cairns AAF) : Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex.: 116°; on ramp N of terminal.

Frederick, Md. (Mun) : 359°; txwy between rnwys near apch end rnwy 23.

•**Gage, Okla.:** 109°; Int txwys, NW corner of ramp.

Gallup, N. Mex. (Senator Clarke Fld): 050°; ctr of txwy in front of term bldg; 5.2 nmi from VOR.

Goldsboro, N.C. (Seymour Johnson AFB) : 280°; run up pad at apch end rnwy 8.

Great Falls, Mont. (Intl): #1–027°; int NE/SW and E/W txwys adjt to apch end rnwy 34; 2.4 mi. #2–027°; on NE/SW txwys 100′ SW rnwy 25; 3.0 mi.

Greeley, Colo. (Weld Co. Arpt): Gill VOR 204°; int rnwys 12 and E/W txwy.

Green Bay, Wis. (Austin-Straubel) : 141°; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C.: 033°; Ramp in front of twr.

Greenwood, Miss.: 060°; central taxiway adj to ramp.

Greenwood, S.C. (County) : 251° on taxiway apch end of rnwy 9.

Gulfport, Miss.: 098°; 100′ NW of ctl twr.

Harrison, Ark.: 131°; Int taxiway and ramp.

Helena, Mont.: 235°; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County) : 030°; on runup pad apch end rnwy 3.

Holston Mountain, Tenn.: 282°; on ramp S of Term Bldg.

Hot Springs, Ark.: 246°; run-up area short of apch end rnwy 5.

Houston, Tex.: 292°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun) : 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld) : 007°; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.) : 202°; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 359°; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County) : 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County) : 143°; N edge of parking ramp.

Key West, Fla. (Boca Chica) : 091°; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l) : 127°; NW portion of ramp.

Kinston, N.C. (Stallings) : 230°; 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga.: 106°; on compass rose at taxi strip intersection aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City) : 053°; center of apch end rnwy 6

Laredo, Tex. (AFB) : Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld) : 351° last txwy W side apchg rnwy 19.

Las Vegas, N. Mex.: 231°; on apron N of FSS bldg.

Lawton, Okla.: 349°; on trml apron at the point intersecting the S taxi strip.

Little Rock, Ark. (Adams) : 314°; on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

Longview, Tex. (Gregg Co): 126°; N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman) : 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford) : 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 103°; center of warm up pad for rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt) : 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen) : 026°; mid txwy to rnwy 17–35.

Manhattan, Kans. (Muni): 145°; on ramp in front of Trml Bldg.

Mansfield, Ohio (Mun) : 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Alpine): 314°; 5 NM from VOR intsxn NW/SE—NE/SW txwy, 450′ E apch end rnwy 30.

Marianna, Fla.: 310°; ESE end taxiway 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

McAlester, Okla. (Mun) : 350°; taxistrip at terminal ramp.

McAllen, Tex. (Miller Int'l) : Lctn #1—040°; at intersection E/W txwy and N/S txwy. Lctn #2— 012°; in front airline trml on gate two loading spot,.

Melbourne, Fla. (Eau Gallie). 145°; 500′ E of Term Bldg.

Meridian, Miss. (Ky): 121°; from run up ramp for rnwy 23.

Midland, Tex. (Air Trml): 178°; Int txwy C and ramp in front of Trml Bldg.

Miles City, Mont: 036°; on txwy leading to rnwy 30.

Mineral Wells, Tex.: 307°; intersection of txwy and NW rnwy.

Missoula, Mont. (County): 340°; 5′ from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates): 107°; Int of N/S and E/W txwys E of rnwy 18–36. 109.5°; Int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

Monticello, Ark.: 329°; on ramp by gas pumps.

Morgantown, W. Va.: 157°; on txwy in front of Term Bldg.

Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX–AMA): 253°; on ramp in front of Admin Bldg.

New Bern, N.C.: 088°; on compass rose at ramp.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

New Orleans Intl, La. (Moisant Fld): 235°; center of perimeter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Ocala, Fla. (Mun): 139°; on ramp near trml bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bludg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Pahokee, Fla.: 344°; overrun rnwy 35.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.

Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int of N/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S and E/W txwys of arpt.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

Raleigh, N.C.: 244°; end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°: on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1–19 and 305′ from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn-around E end rnwy 25. Lctn #2—261°; in center of turn-around W end rnwy 7.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 261°; right 3 rnwy 33, marker.

Rome, Ga. (Russeell Fld): 348°; Intersection of taxiways 200′ S of the terminal bldg.

St. Paul, Minn., (Downtown Arpt): 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parking ramp 500′ SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis): 236°; E edge of ramp in front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santta Rosa Calif. (Sonoma Co. Arpt): 083.5°; SW corner main ramp.

Sante Fe, N. Mex. (New Municipal): 334°; at junction main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N trml bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposite trml bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

Sioux Falls, S. Dak.: 148°; in line with E edge of txwy W of ctl twr, 75′ S from N edge of parking ramp.

South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200′ N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400′ S of N end of taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans.: (Philip Billard Arpt): 213°; N/S taxiway W of tetrahedron.

Truth or Consequences, N. Mex.: 157°; on NE/SW txwy 200′ NW of wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

Vichy, Mo.: 241°; on center line of NE/SW rnwy 125′ from NE end Rolla National Arpt.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex., (Muni): 132°; ramp N of terminal.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 051°; taxi strip at parking apron adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; vcnty of base operator ramp.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300′ from centerline rnwy 14–32.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1966

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	×	
Balboa	FAA	×	
Cold Bay	FAA	×	
Dallas	BNF	×	
Guam	FAA	×	
Honolulu	ARINC	×	×
Miami	ARINC	×	×
New York	ARINC	×	×
New Orleans	ARINC	×	×
Okinawa	ARINC	×	×
Pago Pago	FAA	×	
Point Barrow	FAA	×	
San Francisco	ARINC	×	×
Shemya	FAA	×	
San Juan	ARINC	×	×
Seattle	ARINC	×	×
Wake Island	FAA	×	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

•TRAFFIC INFORMATION ON MERGING RADAR TARGETS

Effective July 31, 1966, ATC facilities will implement a traffic information service on merging radar targets to radar identified scheduled air carrier aircraft. Traffic information will be issued to a radar identified scheduled air carrier aircraft when his radar target is likely to merge with another observed radar target, unless the observed traffic is known to be separated by more than the minimum vertical separation for his altitude. This service will not be provided to aircraft while they are holding in a holding pattern. Pilots should expect other traffic to be in a holding pattern with approved separation. Such traffic information will be issued routinely unless the controller is engaged in the provision of separation to the extent that it is not possible to provide this traffic information.

A vector to avoid merging targets will be provided only at the pilot's request and then *only* on a workload permitting basis. The vector, when provided, will not necessarily provide approved radar separation (three or five miles). The controller will attempt to provide vectors only to the extent that the targets do not touch.

Standard phraseologies for issuing traffic information and vectors will be used.

July 1966

SIMULTANEOUS OPPOSITE DIRECTION OPERATIONS ON PARALLEL RUNWAYS

Controls towers may authorize opposite direction operations on parallel runways, on parallel landing strips, or on a runway and a parallel landing strip, when the following conditions are met:

a. All operations are conducted in VFR conditions, two-way communications are maintained with the aircraft involved, and pertinent traffic information is issued.

b. For operations between sunrise and sunset, a distance of at least 1400 feet exists between parallel runway centerlines, between adjacent edges of parallel landing strips, or between adjacent edges of a runway and a parallel landing strip.

c. For operations between sunset and sunrise, a distance of 2800 feet exists between parallel runway centerlines. (Note: Simultaneous opposite direction operations are not authorized between sunset and sunrise on a runway and a parallel landing strip or on parallel landing strips.)

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-36S, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-36S, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

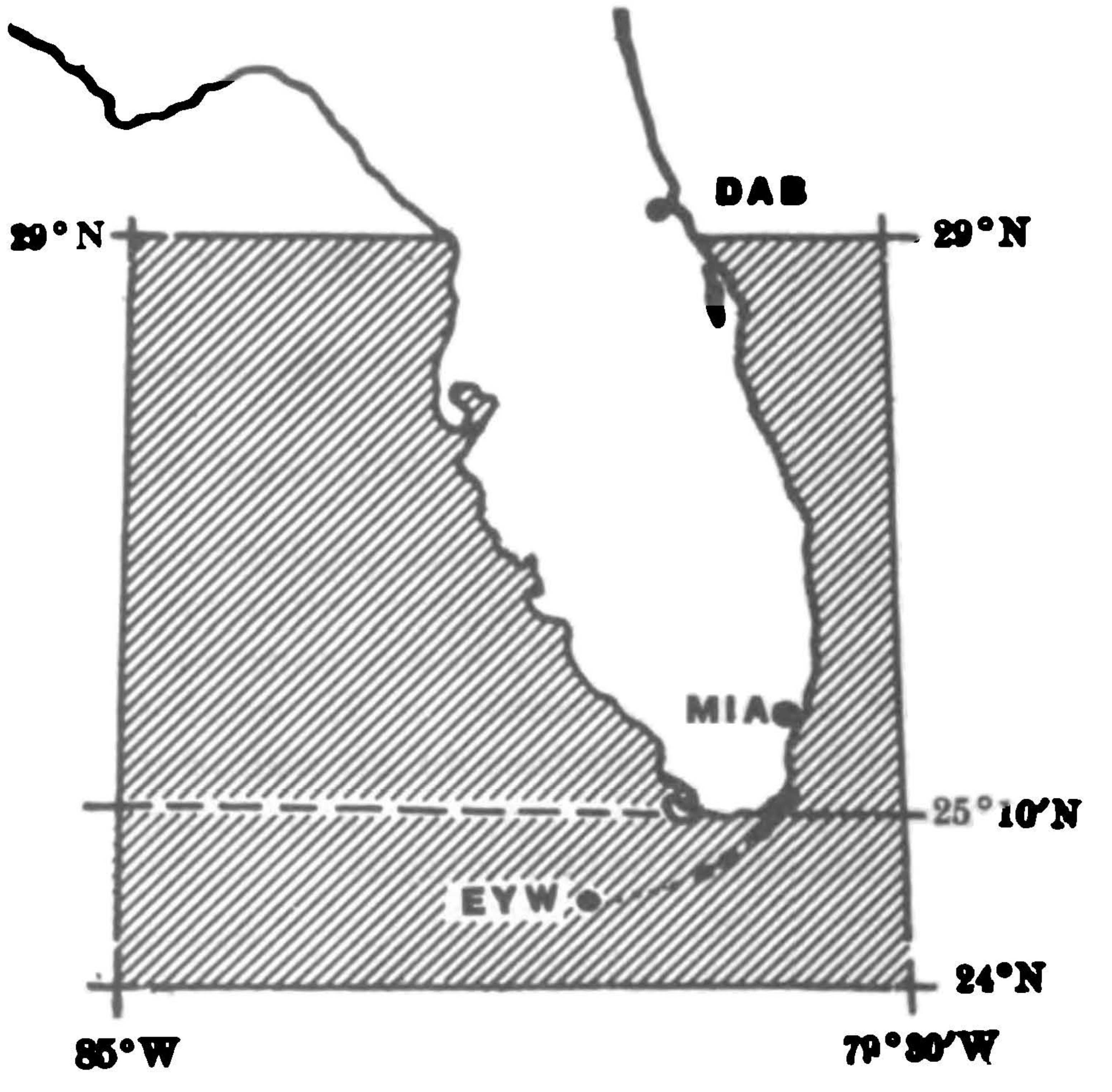
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

PART–TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

St. Petersburg, Albert Whitted Arpt: 0600–2200 local time daily.

Sarasota: 0600–2200 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

Benton Harbor: 0730–2200 local time daily.

Escanaba: 0730–2200.

•**Iron Mountain:** 0800–2145 local time daily.

Ironwood: 0630–2030 local time daily.

Menominee: 0800–2130 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainerd: 0730–2030 local time daily.

Fairmont: 0715–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

Winona: 0900–1845 local time Mon–Fri and 0900–1630 local time Sat and Sun.

Worthington: 0800–1845 local time daily.

MISSOURI

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

Kearney: 0700–2200 daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730–2100 local time daily.

NORTH DAKOTA

Devils Lake: 0600–2300 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Killeen: 0600–2000 local time daily.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630- 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

•**Bremerton:** Efctv Aug 18, 1966, 0900–1800 local time daily.

Tacoma Industrial Arpt: 0500–2400 local time daily except Sat 0500–2100 local time.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

Janesville: 0600–2300 local time Sun thru Fri and 0600–2200 local time Sat.

Manitowoc: 0800–2200 local time daily.

•**Rhinelander:** 0700–2130 local time daily.

Stevens Point: 0700–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

g. To clear a departing aircraft via the route filed, the controller will state "CLEAR AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

● **The part-time manned facilities,** which transmit and receive on 123.6 and 121.5 (emergency), the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0600–2000.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Concord, New Hampshire)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

October 1965

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO—O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

PLEASE NOTE! CHANGE IN STANDARD FSS FREQUENCY

On October 14, 1965, the frequency 135.9 mc was discontinued and replaced with 123.6 mc.

●DME at ILS Locations

The FAA has installed Distance Measuring Equipment (DME) at selected ILS glide slope locations for the purpose of determining the operational advantages of DME when used in conjunction with ILS. DME capabilities have been incorporated in the ILS instrument approach procedure at the following locations:

Airport	*Runway*
John F. Kennedy International, New York	04R
Albany County, New York	19
Minneapolis—St. Paul International, Minnesota	11R
Dulles International, Washington, D.C.	01R
St. Joseph County, South Bend, Indiana	09, 27
Cleveland—Hopkins International, Ohio	05R, 23L
Reno, Nevada	34, 16
Lindbergh Field, San Diego, California	09, 27

An operational evaluation will be conducted by the FAA at these locations commencing during the month of July, 1966. Questionnaires will be made available to pilot personnel to obtain user comments during the evaluation period. Pilots conducting operations into these airports with DME equipped aircraft are encouraged to utilize the DME capability of the ILS facilities and to report their findings and recommendations by submitting completed questionnaires to the FAA.

July 1966

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for that aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

May 1966

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis.*
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

1. **Airspace North of V18N airway from the surface to 3000 feet MSL.**
2. **Airspace South of V18N airway from the surface to 2000 feet MSL.**
3. **All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   - a. Airports within the Atlanta TRSA:
     - (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   - b. Airports underlying the Atlanta TRSA:
     - (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   - c. Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
   - d. Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V–18N should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V–18N should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.

     In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	" "	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conyers	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

   NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

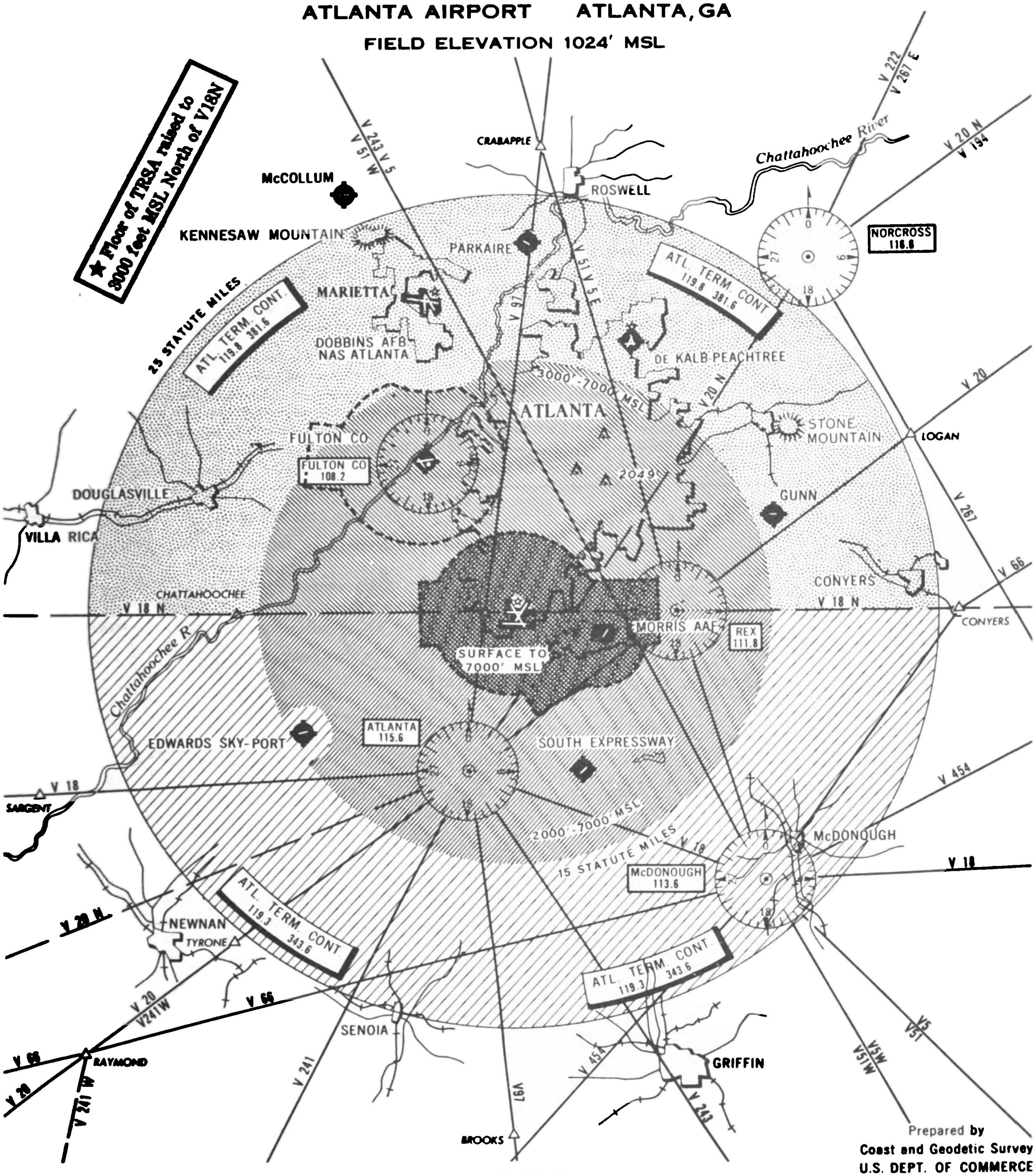
4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024′ MSL

★ Floor of TRSA raised to 3000 feet MSL North of V18N



V 222
V 267 E
Chattahoochee River
V 20 N
V 194
V 243 V 5
V 51 W
CRABAPPLE
McCOLLUM
ROSWELL
KENNESAW MOUNTAIN
PARKAIRE
NORCROSS 116.6
ATL. TERM. CONT. 119.8 381.6
25 STATUTE MILES
MARIETTA
DOBBINS AFB NAS ATLANTA
V 97
V 51 V 5 E
DE KALB-PEACHTREE
3000′-7000′ MSL
ATLANTA
V 20 N
V 20
STONE MOUNTAIN
LOGAN
FULTON CO
FULTON CO 108.2
2049
GUNN
DOUGLASVILLE
VILLA RICA
V 267
CONYERS
V 66
CHATTAHOOCHEE
V 18 N
MORRIS AAF
REX 111.8
CONYERS
SURFACE TO 7000′ MSL
Chattahoochee R.
EDWARDS SKY-PORT
ATLANTA 115.6
SOUTH EXPRESSWAY
V 454
V 18
SARGENT
2000′-7000′ MSL
15 STATUTE MILES
McDONOUGH
McDONOUGH 113.6
V 18
V 20 N
NEWNAN
TYRONE
ATL. TERM. CONT. 119.3 343.6
V 20
V 241W
V 66
SENOIA
GRIFFIN
V5
V51
V51W
V5W
V 66
RAYMOND
V 20
V 241 W
V 241
V 454
V97
V 243
BROOKS

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA ▨ 2000′-7000′ ■ SURFACE TO 7000′ ▨ 3000′-7000′

CONTACT OR CALL-UP AREAS
North of V 18 N ░
South of V 18 N ▨

GEORGIA

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia Rivers. From takeoff climb to 1500′, reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000′ altitude. Stay over the River until passing through 3000′ altitude unless otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1-AND 2-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 1500′ prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 2000′ prior to turning oncourse unless instructed to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.

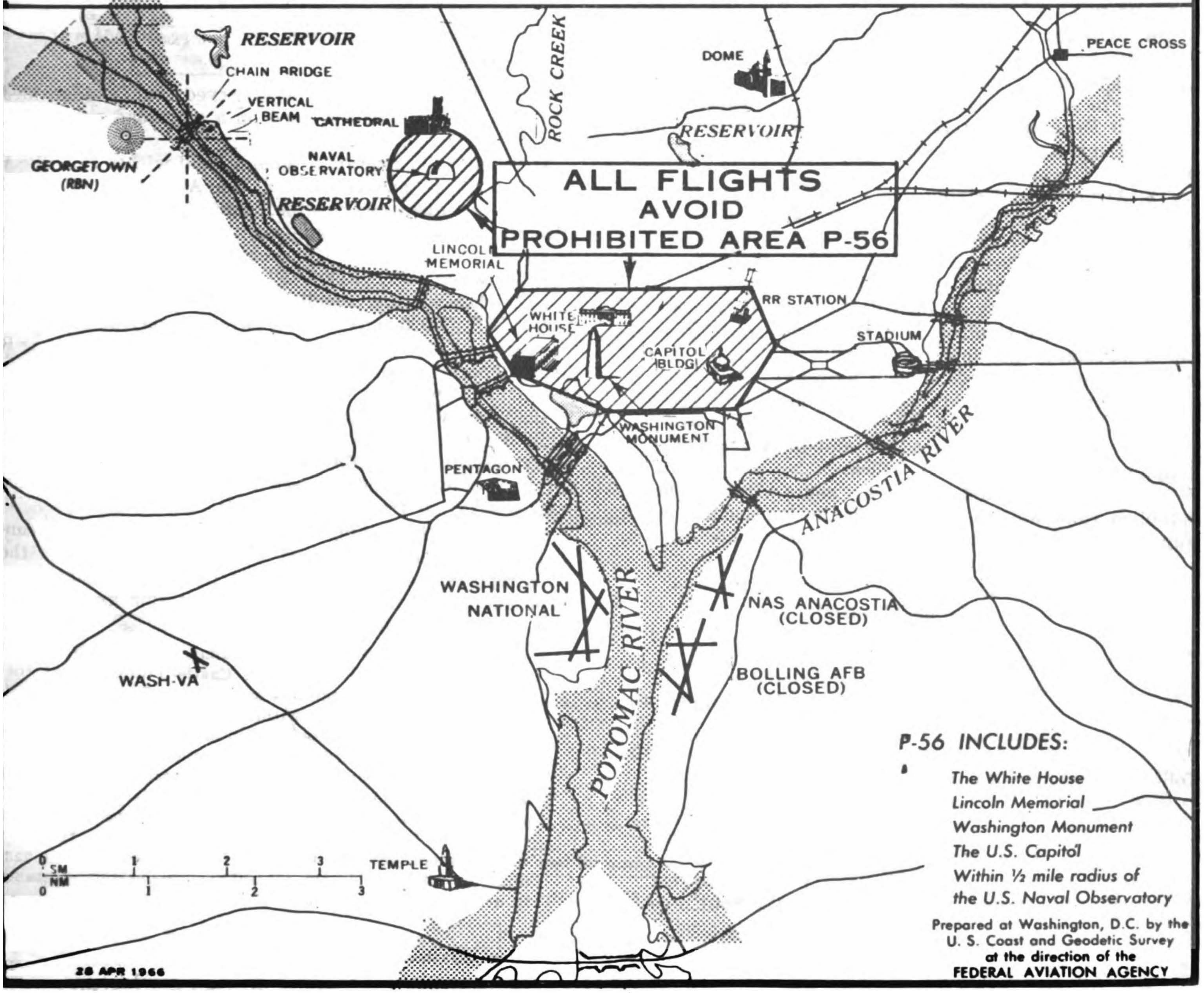
Remain at 2500′ or higher while en route to final.

When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.

A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.

On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.

If VFR go around is required, climb over the River to 2500′, enter traffic pattern for subsequent approach.


RESERVOIR
CHAIN BRIDGE
VERTICAL BEAM
CATHEDRAL
GEORGETOWN (RBN)
NAVAL OBSERVATORY
RESERVOIR
ROCK CREEK
DOME
RESERVOIR
PEACE CROSS
ALL FLIGHTS AVOID PROHIBITED AREA P-56
LINCOLN MEMORIAL
WHITE HOUSE
CAPITOL BLDG
RR STATION
STADIUM
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
POTOMAC RIVER
WASH-VA
TEMPLE
0 SM 1 2 3
0 NM 1 2 3
28 APR 1966

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of the U.S. Naval Observatory

Prepared at Washington, D.C. by the U. S. Coast and Geodetic Survey at the direction of the FEDERAL AVIATION AGENCY

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West–Northwest
Crows Landing (NAS)	West
City of Gustine	West–Southwest
City of Los Banos	South–Southwest
City of Dos Palos	South
City of Chowchilla	East–Southeast
City of Madera	East–Southeast
City of Mariposa	East–Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

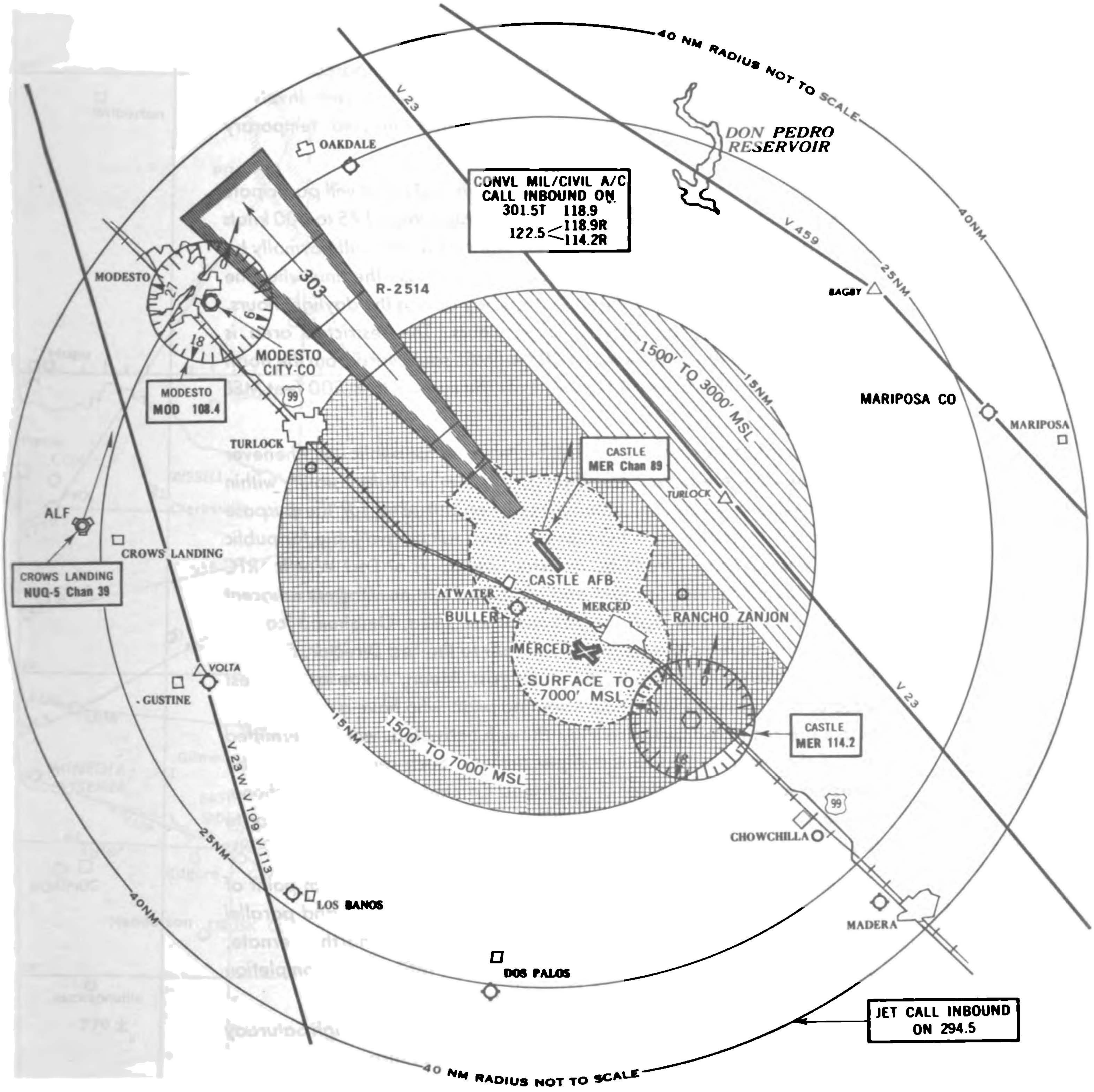
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188' MSL


40 NM RADIUS NOT TO SCALE
V 23
OAKDALE
DON PEDRO RESERVOIR
CONVL MIL/CIVIL A/C CALL INBOUND ON 301.5T 118.9 122.5<118.9R 114.2R
V 459
40NM
25NM
BAGBY
MODESTO
27
9
18
303
R-2514
MODESTO CITY-CO
MODESTO MOD 108.4
99
TURLOCK
1500' TO 3000' MSL
15NM
MARIPOSA CO
MARIPOSA
CASTLE MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING NUQ-5 Chan 39
CASTLE AFB
ATWATER
BULLER
MERCED
RANCHO ZANJON
MERCED
SURFACE TO 7000' MSL
VOLTA
GUSTINE
15NM
1500' TO 7000' MSL
CASTLE MER 114.2
V 23
V 23W V 109 V 113
99
CHOWCHILLA
25NM
40NM
LOS BANOS
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA ░ SURFACE TO 7000' ▧ 1500' TO 3000' ▦ 1500' TO 7000'

CONTACT OR CALL-UP AREAS CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LOUISIANA, ARKANSAS AND OKLAHOMA
TEMPORARY RESTRICTED AREA R-3806
JOINT TASK FORCE TWO, TEST 4.1

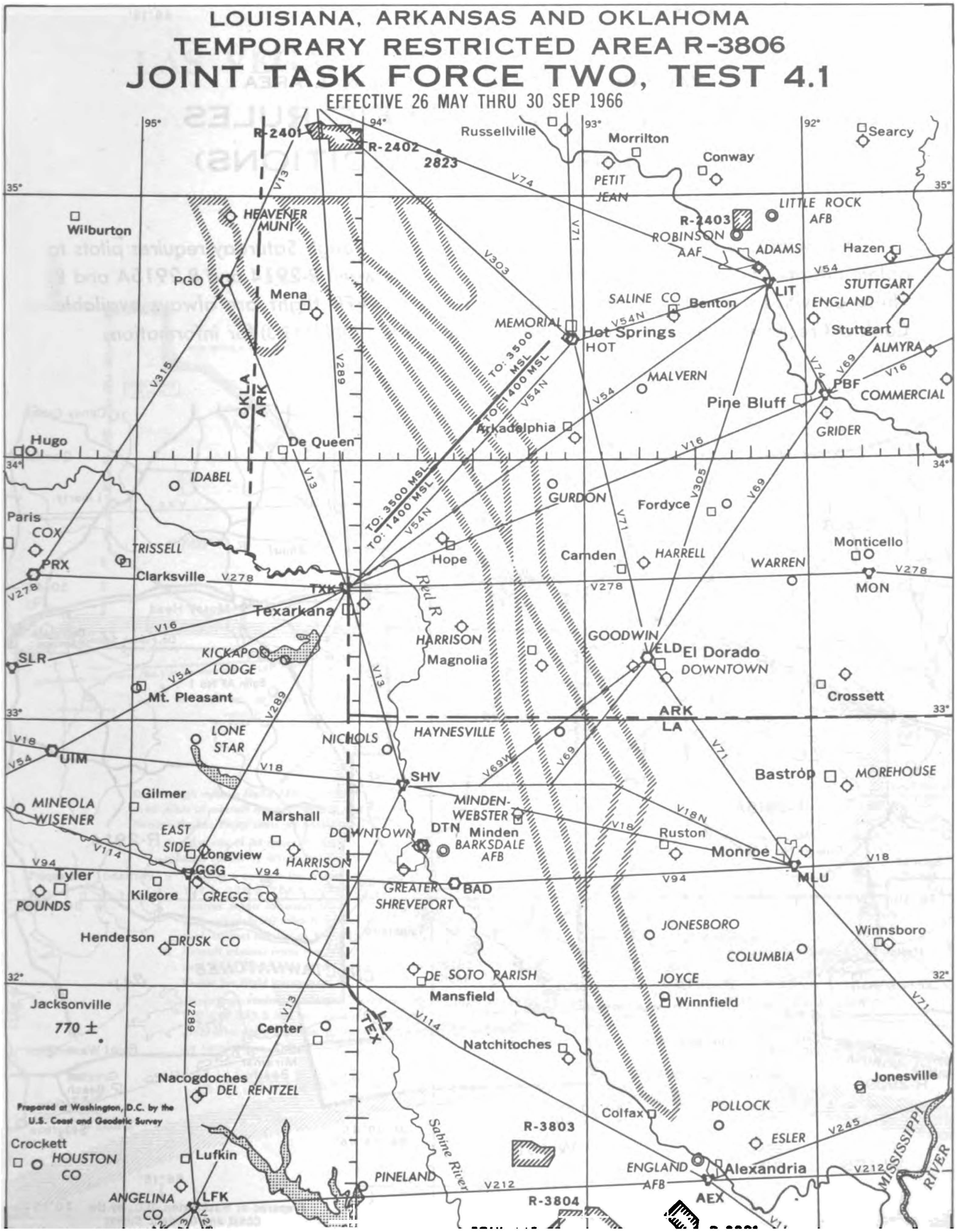
EFFECTIVE 26 MAY THRU 30 SEP 1966

Joint Task Force Two (JTF-2) an organization composed of representatives from all military services will conduct a test involving approximately 600 aircraft flights within the depicted temporary restricted area.

Navy, Marine, Army and Air Force aircraft and crews will participate in the test. Speeds of the various aircraft will range from 175 to 600 knots at altitudes normally below 500 feet. The test flights will normally be conducted within a six-hour period daily centered on the time when the sun is at its zenith, Monday through Saturday during the daylight hours. Maximum daily use by JTF-2 is eight hours. The restricted area is designated from the surface to 1,400 feet MSL southward from the north boundary of Victor Airway 54N and from the surface to 3,500 feet MSL north of V-54N.

This joint use restricted area will be released for public use whenever the ceiling over the area is less than 3,000 feet or flight visibility within is below five miles and at other times when not used for the purpose designated. Information on the times the area will be available for public use may be obtained from the Houston, Memphis or Fort Worth ARTC Centers, Flight Service Stations and combined stations/towers adjacent to the area, the Hot Springs, Arkansas or Tulsa, Oklahoma control towers, or by reverse charge telephone calls to the Test Director, England AFB, Louisiana, or the Mena Command Post, Mena, Arkansas. The Test Director has advised that nonparticipating pilots who have a requirement to use the restricted airspace even though activated, will be permitted use of the area subject to test flight activity. Such requests should be directed to the Test Director or the Mena Command Post by telephone. The telephone numbers will be publicized throughout the area prior to the start of the test.

Designated altitudes:	*Surface to 1,400 feet MSL from point of beginning to 4 nmi north of and parallel to the centerline of V-54 north alternate, thence 3,500 feet MSL to the completion of the courses.*
Time of designation:	*Sunrise to sunset, Monday through Saturday from May 26, 1966, through September 30, 1966. Maximum daily use, eight hours.*
Controlling agency:	*FAA, Houston ARTCC.*
Using agency:	*Joint Task Force Two, Sandia Base, New Mexico.*



LOUISIANA, ARKANSAS AND OKLAHOMA TEMPORARY RESTRICTED AREA R-3806

JOINT TASK FORCE TWO, TEST 4.1

EFFECTIVE 26 MAY THRU 30 SEP 1966

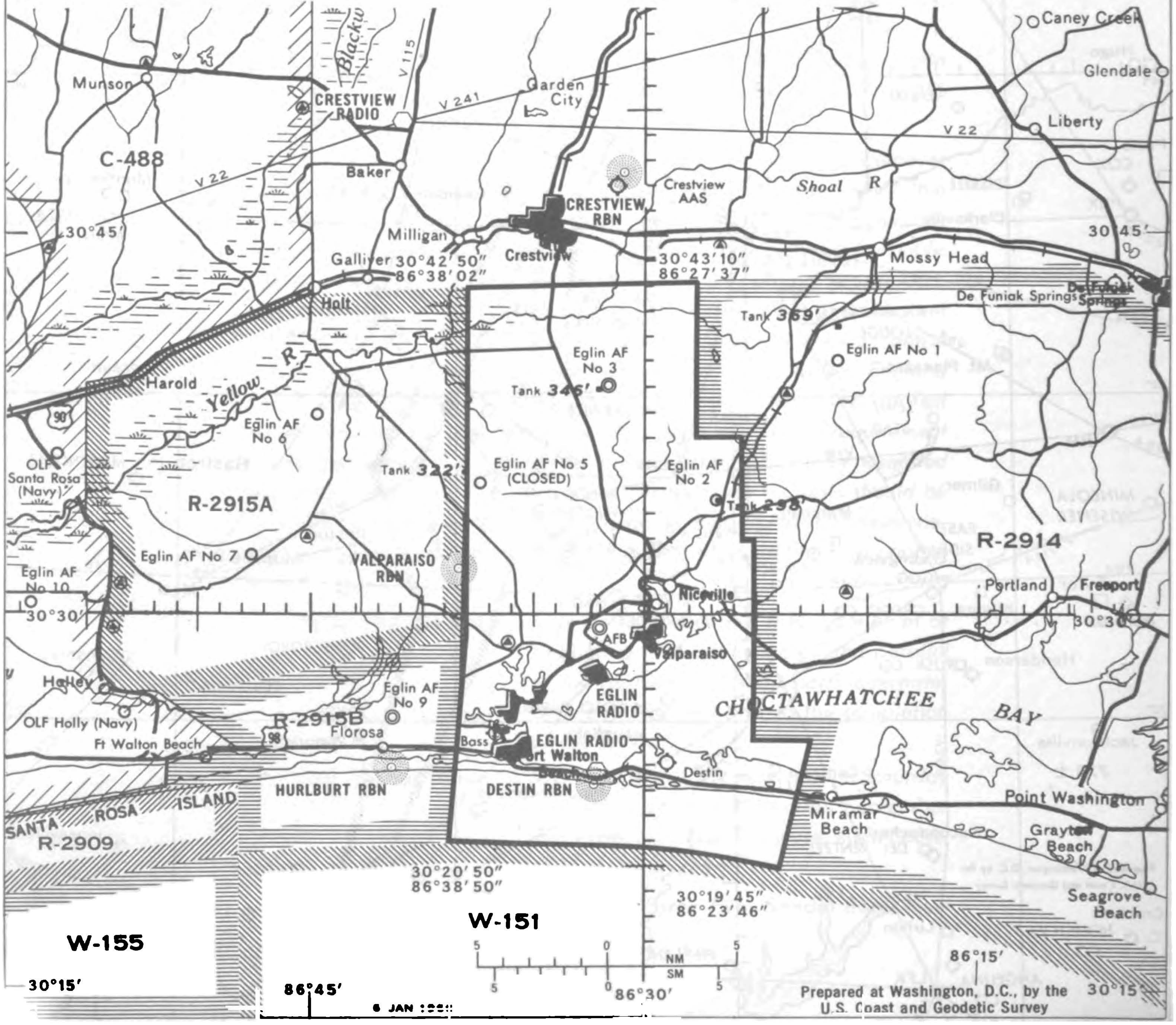
Prepared at Washington, D.C. by the U.S. Coast and Geodetic Survey

95°
94°
93°
92°
35°
34°
33°
32°
R-2401
R-2402
2823
R-2403
R-3803
R-3804
Russellville
Morrilton
Conway
Searcy
PETIT JEAN
LITTLE ROCK AFB
ROBINSON AAF
ADAMS
Hazen
LIT
STUTTGART
ENGLAND
Stuttgart
ALMYRA
SALINE CO
Benton
MEMORIAL
Hot Springs
HOT
MALVERN
Pine Bluff
PBF
COMMERCIAL
GRIDER
Wilburton
HEAVENER MUNI
PGO
Mena
OKLA
ARK
De Queen
Arkadelphia
TO: 3500 MSL
TO: 1400 MSL
Hugo
IDABEL
GURDON
Fordyce
Paris
COX
PRX
TRISSELL
Clarksville
Hope
Camden
HARRELL
Monticello
WARREN
MON
TXK
Texarkana
Red R
HARRISON
Magnolia
GOODWIN
ELD
El Dorado
DOWNTOWN
Crossett
SLR
KICKAPOO LODGE
Mt. Pleasant
ARK
LA
LONE STAR
NICHOLS
HAYNESVILLE
UIM
SHV
Bastrop
MOREHOUSE
MINEOLA WISENER
Gilmer
Marshall
MINDEN-WEBSTER
Minden
DTN
BARKSDALE AFB
Ruston
Monroe
MLU
EAST SIDE
Longview
DOWNTOWN
HARRISON CO
GGG
Tyler
POUNDS
Kilgore
GREGG CO
GREATER SHREVEPORT
BAD
JONESBORO
Winnsboro
Henderson
RUSK CO
COLUMBIA
DE SOTO PARISH
Mansfield
JOYCE
Winnfield
Jacksonville
770 ±
Center
LA
TEX
Natchitoches
Jonesville
Nacogdoches
DEL RENTZEL
Colfax
POLLOCK
Crockett
HOUSTON CO
Lufkin
ESLER
ENGLAND AFB
Alexandria
AEX
PINELAND
Sabine River
MISSISSIPPI RIVER
ANGELINA CO
LFK
V13
V74
V71
V303
V54
V54N
V289
V315
V16
V305
V69
V278
V18
V18N
V69W
V114
V94
V245
V212

86°45' 86°15'

VALPARAISO, FLORIDA, TERMINAL AREA
SPECIAL AIR TRAFFIC RULES
(VFR OR VFR CONDITIONS)

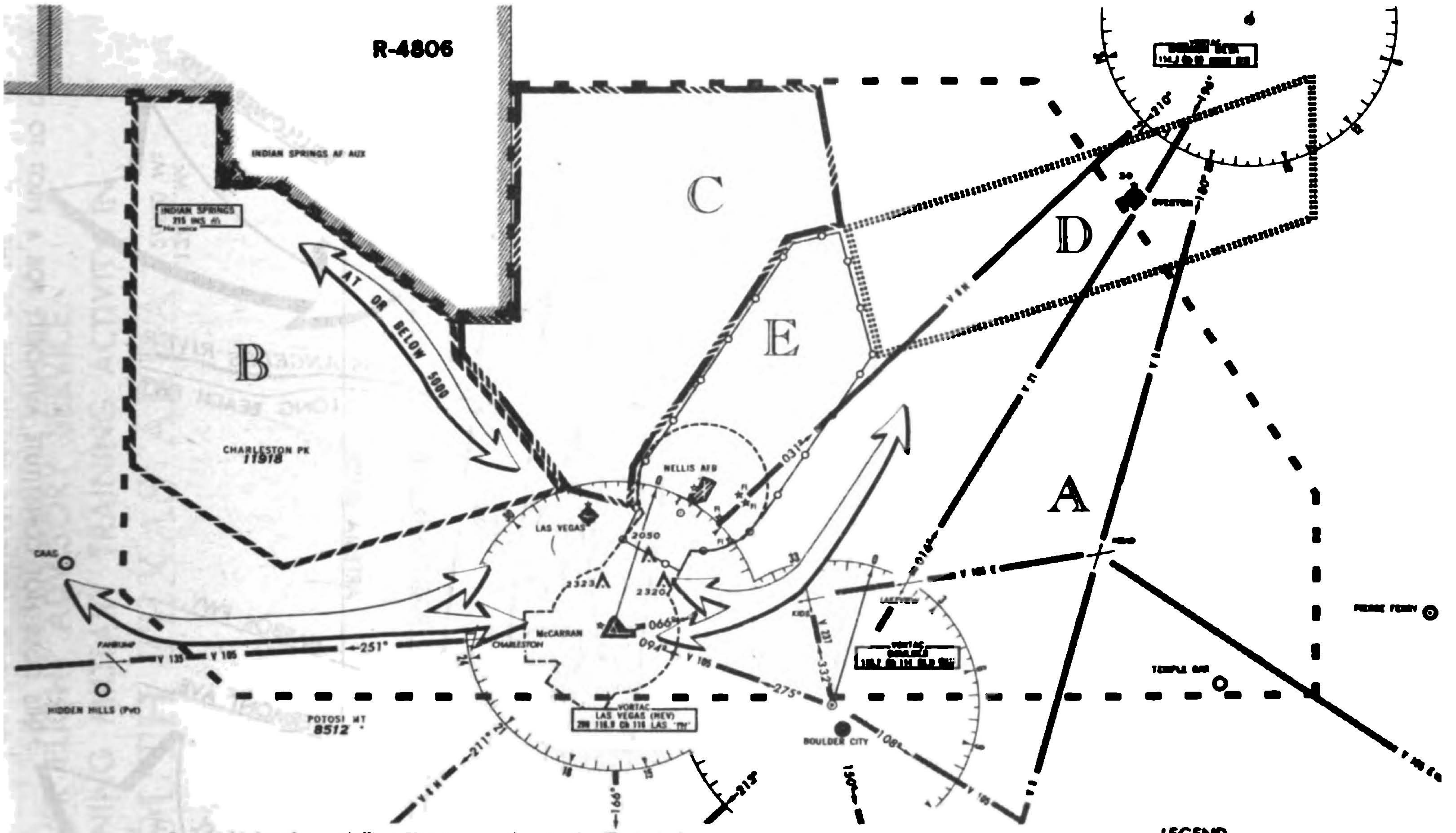
A special rule in effect sunrise to sunset, Monday through Saturday requires pilots to obtain information about special activities operating between R-2914 and R-2915A and B. These activities use varying altitudes but altitudes for VFR flight are always available. Contact Crestview Radio (122.1,123.6,126.7) or Eglin RAPCON (119.3) for information.


Munson
CRESTVIEW RADIO
Blackw
V 115
V 241
Garden City
C-488
V 22
Baker
Crestview AAS
Shoal R
CRESTVIEW RBN
Milligan
Galliver 30°42'50" 86°38'02"
Crestview
30°43'10" 86°27'37"
Mossy Head
De Funiak Springs
De Funiak Springs
Caney Creek
Glendale
Liberty
30°45'
Holt
Harold
Yellow R
90
Eglin AF No 6
Eglin AF No 3
Tank 346'
Tank 369'
Eglin AF No 1
Tank 322'
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 298'
OLF Santa Rosa (Navy)
R-2915A
Eglin AF No 7
VALPARAISO RBN
R-2914
Eglin AF No 10
30°30'
Niceville
Portland
Freeport
AFB
Valparaiso
Holley
Eglin AF No 9
EGLIN RADIO
CHOCTAWHATCHEE BAY
R-2915B
OLF Holly (Navy)
Florosa
Ft Walton Beach
98
Boss
EGLIN RADIO
Ft Walton Beach
Destin
HURLBURT RBN
DESTIN RBN
SANTA ROSA ISLAND
R-2909
Miramar Beach
Point Washington
Grayton Beach
Seagrove Beach
30°20'50" 86°38'50"
30°19'45" 86°23'46"
W-155
W-151
5 0 5 NM
5 0 5 SM
86°15'
30°15'
86°45'
86°30'
30°15'
6 JAN 1966

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

LAS VEGAS TERMINAL AREA NOTICE

LAS VEGAS, NEVADA


R-4806
INDIAN SPRINGS AF AUX
INDIAN SPRINGS
C
B
D
E
A
AT OR BELOW 5000
CHARLESTON PK
11918
NELLIS AFB
LAS VEGAS
McCARRAN
2050
2323
2320
066°
094°
251°
275°
108°
211°
166°
215°
150°
331°
337°
031°
016°
210°
180°
V 135
V 105
HIDDEN HILLS (Pvt)
POTOSI MT
8512
BOULDER CITY
OVERTON
TEMPLE BAR
PIERCE FERRY
VORTAC
LAS VEGAS (REV)

Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. *a. Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   - *Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Mormon Mesa Vortac for flight information.*

   b. Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Las Vegas Air Terminal.

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas.
Altitudes are Mean Sea Level

A ▬ ▬ ▬ FL 230
B ▰▰▰▰▰▰ 5,500 to FL 230
C ▬▬╲╲╲▬▬ Surface to FL 230
D ┇┇┇┇┇┇┇┇ 8,000 to 9,000
E ○——○——○ Surface to 9,000 inclv.

Recommended itinerant
VFR routes ⇐⇒

Base And Airspace Compiled From
56th Edition Of Mt Whitney And 61st Edition
Of Los Angeles Sectional Aeronautical Charts

10
0 NAUTICAL
10 MILES
20
30
40
50
10
0 STATUTE
10 MILES
20
30
40
50

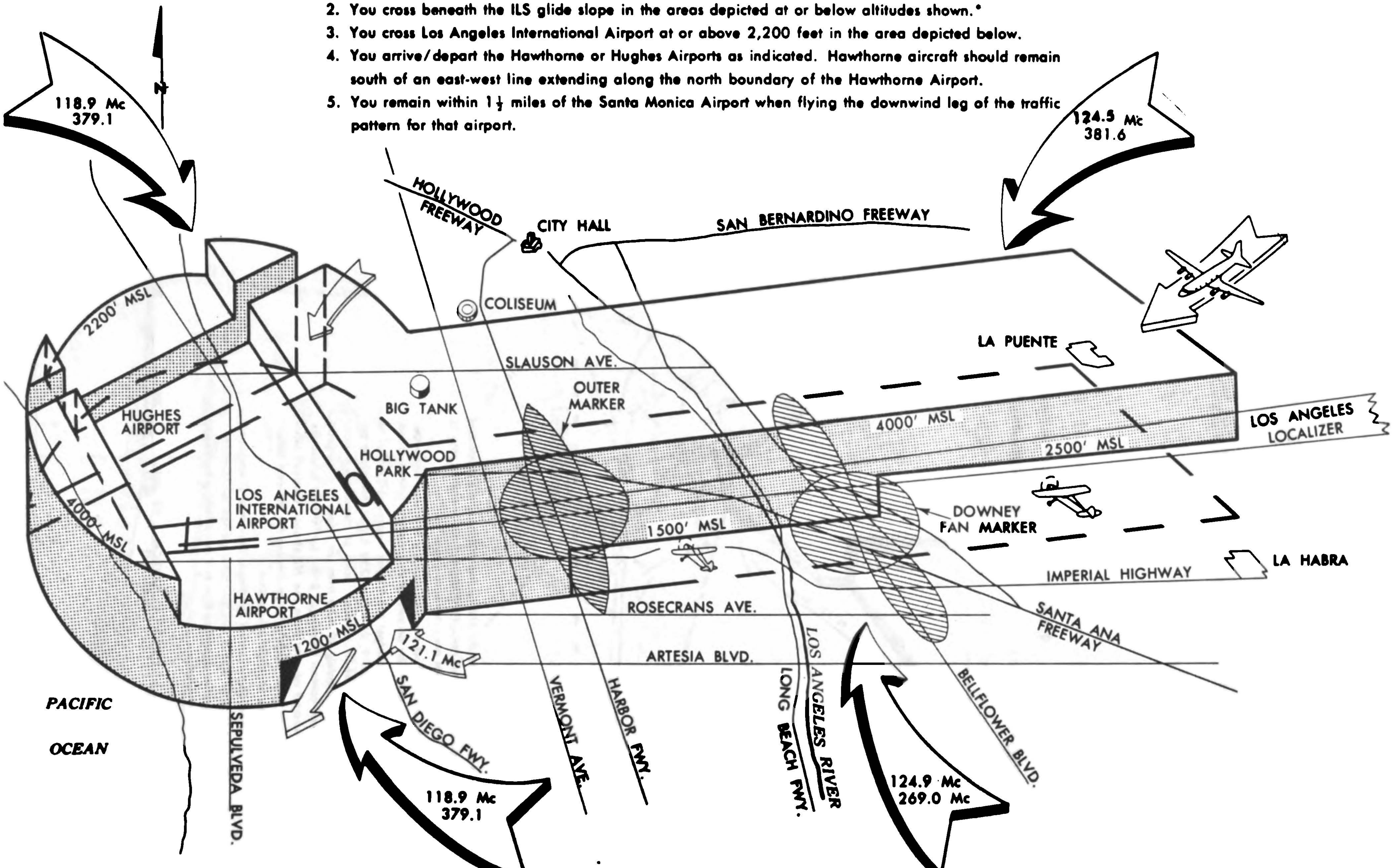
Prepared by
Coast and Geodetic Survey
U.S. DEPT OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.


118.9 Mc
379.1
N
124.5 Mc
381.6
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
COLISEUM
2200' MSL
SLAUSON AVE.
OUTER MARKER
BIG TANK
LA PUENTE
HUGHES AIRPORT
HOLLYWOOD PARK
4000' MSL
2500' MSL
LOS ANGELES LOCALIZER
LOS ANGELES INTERNATIONAL AIRPORT
4000' MSL
1500' MSL
DOWNEY FAN MARKER
LA HABRA
IMPERIAL HIGHWAY
HAWTHORNE AIRPORT
ROSECRANS AVE.
SANTA ANA FREEWAY
1200' MSL
121.1 Mc
ARTESIA BLVD.
PACIFIC
OCEAN
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LOS ANGELES RIVER
LONG BEACH FWY.
BELLFLOWER BLVD.
SEPULVEDA BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

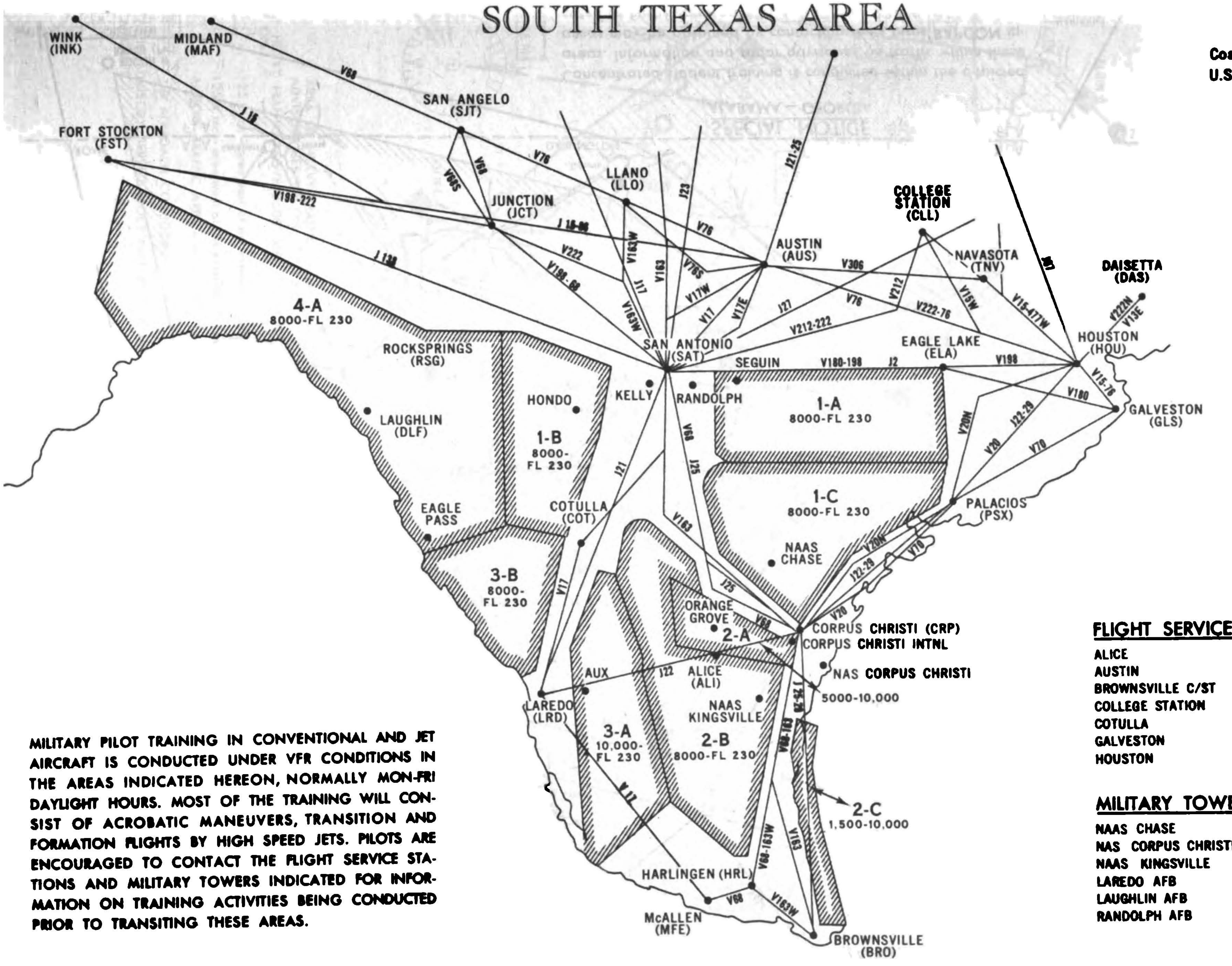
Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

22 JUL 1965

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN

SOUTH TEXAS AREA

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

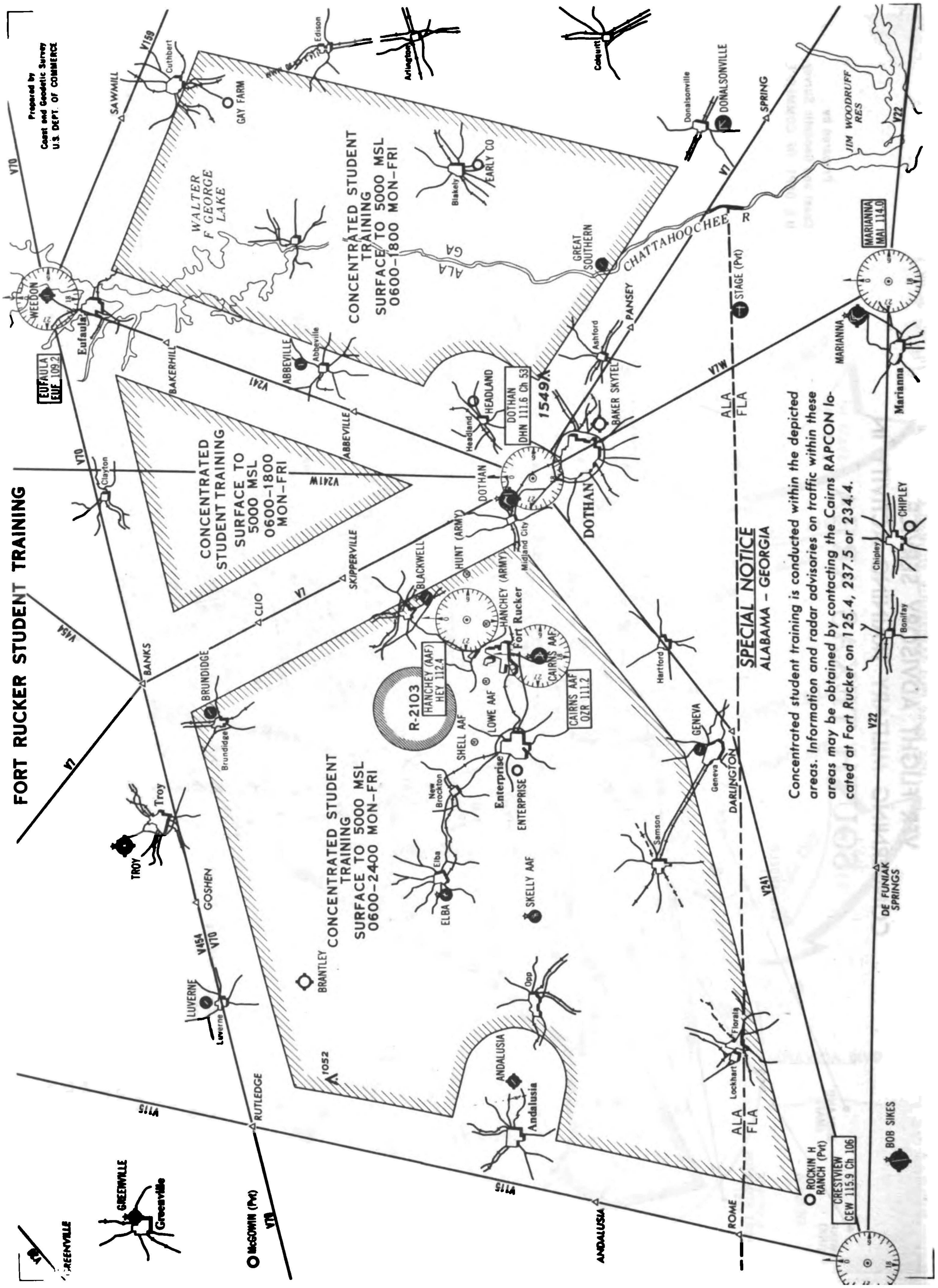

WINK (INK)
MIDLAND (MAF)
FORT STOCKTON (FST)
SAN ANGELO (SJT)
JUNCTION (JCT)
LLANO (LLO)
AUSTIN (AUS)
COLLEGE STATION (CLL)
NAVASOTA (TNV)
DAISETTA (DAS)
HOUSTON (HOU)
GALVESTON (GLS)
EAGLE LAKE (ELA)
PALACIOS (PSX)
SAN ANTONIO (SAT)
SEGUIN
KELLY
RANDOLPH
HONDO
ROCKSPRINGS (RSG)
LAUGHLIN (DLF)
EAGLE PASS
COTULLA (COT)
LAREDO (LRD)
AUX
ALICE (ALI)
ORANGE GROVE
NAAS CHASE
NAAS KINGSVILLE
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
HARLINGEN (HRL)
McALLEN (MFE)
BROWNSVILLE (BRO)
4-A 8000-FL 230
1-A 8000-FL 230
1-B 8000-FL 230
1-C 8000-FL 230
2-A 5000-10,000
2-B 8000-FL 230
2-C 1,500-10,000
3-A 10,000-FL 230
3-B 8000-FL 230
V68
J15
V198-222
J138
V76
V66S
J15-86
V222
V198-68
V163W
J17
V163
V76S
V17W
V17
V17E
J23
J21-25
V306
J27
V212-222
V212
V15W
V222-76
V15-477W
J87
V222N
V13E
V180-198
J2
V198
V15-76
V180
V20N
J22-29
V20
V70
J21
J25
V68-163W
J25-29
J22
V17

MILITARY PILOT TRAINING IN CONVENTIONAL AND JET AIRCRAFT IS CONDUCTED UNDER VFR CONDITIONS IN THE AREAS INDICATED HEREON, NORMALLY MON-FRI DAYLIGHT HOURS. MOST OF THE TRAINING WILL CONSIST OF ACROBATIC MANEUVERS, TRANSITION AND FORMATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE ENCOURAGED TO CONTACT THE FLIGHT SERVICE STATIONS AND MILITARY TOWERS INDICATED FOR INFORMATION ON TRAINING ACTIVITIES BEING CONDUCTED PRIOR TO TRANSITING THESE AREAS.

FLIGHT SERVICE STATIONS

ALICE
AUSTIN
BROWNSVILLE C/ST
COLLEGE STATION
COTULLA
GALVESTON
HOUSTON
JUNCTION
McALLEN
MIDLAND
PALACIOS
SAN ANGELO C/ST
SAN ANTONIO
WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	119.9 134.1
LAREDO AFB	122.6R 118.5T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2



FORT RUCKER STUDENT TRAINING

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-2400 MON-FRI
R-2103
HANCHEY (AAF) HEY 112.4
CAIRNS AAF OZR 111.2
DOTHAN DHN 111.6 Ch 53
EUFAULA EUF 109.2
MARIANNA MAI 114.0
CRESTVIEW CEW 115.9 Ch 106
1549
1052
WALTER F GEORGE LAKE
JIM WOODRUFF RES
CHATTAHOOCHEE R
ALA GA
ALA FLA
ALA FLA
V7
V70
V115
V154
V159
V22
V241
V241W
V7W
V454
BANKS
CLIO
SKIPPERVILLE
ABBEVILLE
BAKERHILL
SAWMILL
PANSEY
SPRING
DARLINGTON
ROME
RUTLEDGE
GOSHEN
ANDALUSIA
GREENVILLE
McGOWIN (Pvt)
Greenville
TROY
Troy
LUVERNE
Luverne
BRUNDIDGE
Brundidge
Clayton
Cuthbert
GAY FARM
Edison
Arlington
Colquitt
DONALSONVILLE
Donalsonville
Blakely
EARLY CO
GREAT SOUTHERN
WEEDON
Eufaula
ABBEVILLE
Abbeville
HEADLAND
Headland
Ashford
BAKER SKYTEL
DOTHAN
Dothan
Midland City
HUNT (ARMY)
HANCHEY (ARMY)
BLACKWELL
Fort Rucker
CAIRNS AAF
LOWE AAF
SHELL AAF
Enterprise
ENTERPRISE
New Brockton
Elba
ELBA
SKELLY AAF
BRANTLEY
Opp
ANDALUSIA
Andalusia
Hartford
GENEVA
Geneva
Samson
Florala
Lockhart
ROCKIN H RANCH (Pvt)
STAGE (Pvt)
MARIANNA
Marianna
CHIPLEY
Chipley
Bonifay
DE FUNIAK SPRINGS
BOB SIKES

SPECIAL NOTICE

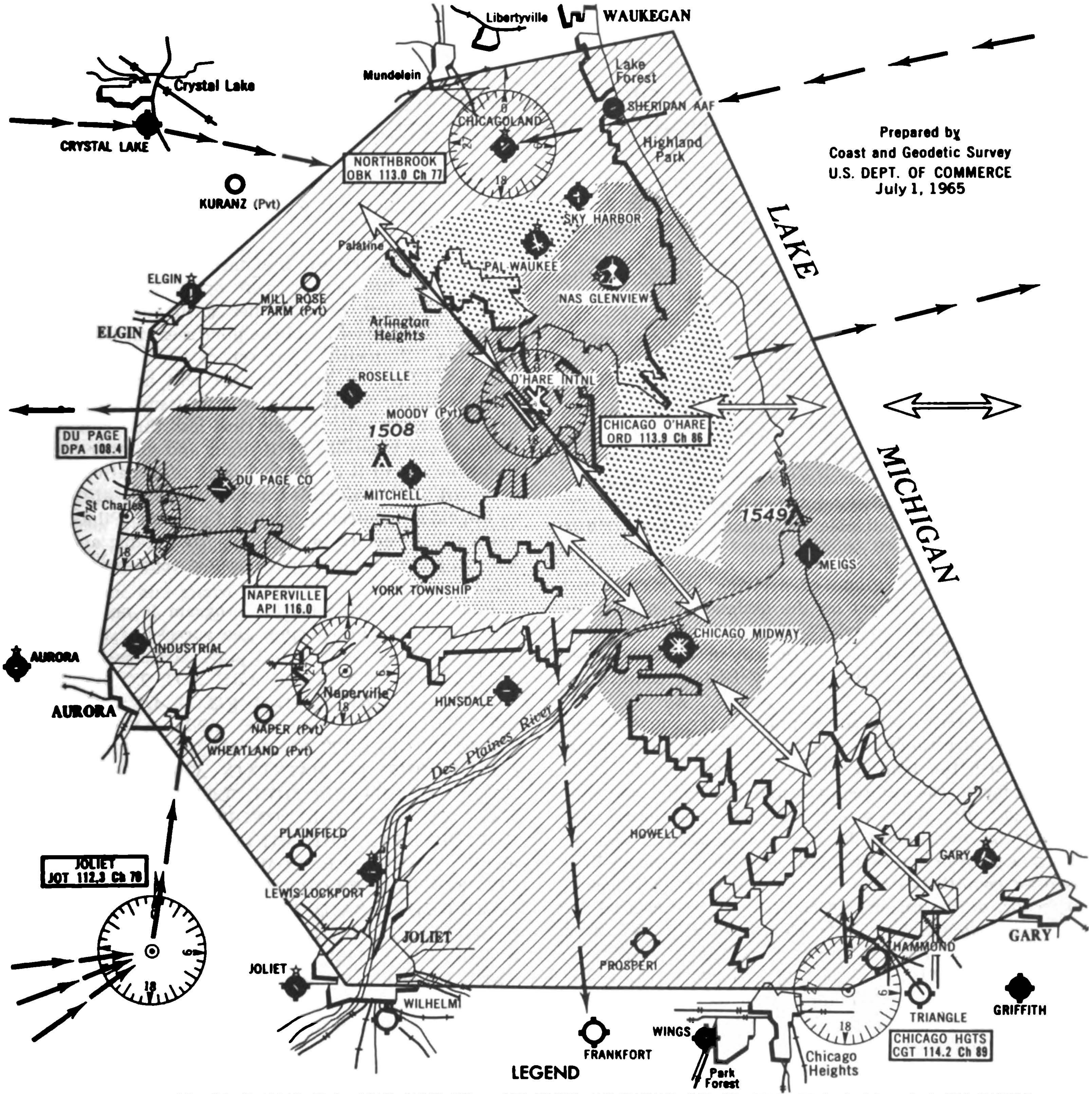
ALABAMA - GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns **RAPCON** *located at Fort Rucker on 125.4, 237.5 or 234.4.*

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Mundelein
Crystal Lake
CRYSTAL LAKE
Lake Forest
SHERIDAN AAF
CHICAGOLAND
NORTHBROOK
OBK 113.0 Ch 77
Highland Park
KURANZ (Pvt)
SKY HARBOR
LAKE
Palatine
PAL WAUKEE
NAS GLENVIEW
ELGIN
MILL ROSE FARM (Pvt)
Arlington Heights
ELGIN
ROSELLE
O'HARE INTNL
MOODY (Pvt)
1508
CHICAGO O'HARE
ORD 113.9 Ch 86
DU PAGE
DPA 108.4
DU PAGE CO
MITCHELL
St Charles
MICHIGAN
1549
MEIGS
NAPERVILLE
API 116.0
YORK TOWNSHIP
CHICAGO MIDWAY
AURORA
INDUSTRIAL
AURORA
Naperville
HINSDALE
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
GARY
JOLIET
JOT 112.3 Ch 78
LEWIS LOCKPORT
JOLIET
HAMMOND
GARY
PROSPERI
JOLIET
WILHELMI
TRIANGLE
GRIFFITH
WINGS
FRANKFORT
Park Forest
Chicago Heights
CHICAGO HGTS
CGT 114.2 Ch 89

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

▒ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L

░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▩ AIRPORT TRAFFIC AREA – – CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC ⟶

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service Is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc then Indianapolis Departure Radar Service, 121.3 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 034° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. inbound on 282° thru 100° use 121.1 mc or 360.8 mc; **Departure freq:** 120.4 or 381.4 mc when advised by tower.

Norfolk Municipal Airport, Virginia

Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 127.2 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting, will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF."

Washington National Airport

District of Columbia

Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P-56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 118.3 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information service (WTIS) on 118.3 mc or 306.3 mc.

NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective November 1966.

Alabama
Athens, Magnusson Fld 1E
Bayou La Batre, Roy E. Ray 4NE
•Hazel Green, Chess King Airpark 4 W
Jackson Muni 2S
St. Elmo, Sky Ranch 2.5N
•Selma, Wiseman 4.5 SW

Arizona
Arizona City 1S
Bouse 0.5E
Tolleson, Moseley Fld 3N

Arkansas
Watson, Shilow 7 SE

California
•Brentwood, Detla Airpark 5 N
Midland 1 S
Ojar, Henderson Fld 3 SW
Pleasant Grove, Van Dyke 3 N

Colorado
Greeley, Easton 7.5SE
Rocky Ford, Mellon Fld 3 SW

Florida
Winter Haven Muni Seaplane Base 3 NNW

Georgia
Asburn, Turner Co. 1 SW
Canon, Franklin Co. 2.5 SW
Jesup, Redlands 5 NW
Patterson, Forestry 2 SE
Sylvester, Worth County 4 NW

Illinois
Baldwin, Redpath 2 E

Indiana
Mentone, Manwaring 0.8 NW

Iowa
Mount Veron, Tonne 4.0 N
Sidney, Knox 3 WSW
Wapello, Brockway Flying B 2.5 NW

Kentucky
•Columbia, Ludot 2 SW

Louisiana
Bassier City, Scopena Plantation 10 SE
Belle Rose, Cone Air 1 W
Cottonport Flying Service 0.3 W
Coushatta, Hanna 1 S
Darnell, Boyou Meadows Airstrip 4 NE
Melville, Hanks 1 S
Mer Rouge, Bacon 1 S
Mora, James 4 E
Patterson, Tri Ville Aviation Inc Seaplane Base 1 SE
St. Joseph, Hunter May 4 N
•St. Martinville adj NE
Shreveport, Aero Enterprises 7.1 S
Starks 3 S
Tendal 4 B Ranch 2 SE
Transylvania, Batton 3 W

Michigan
Selkirk, Thompson 0.3 SE

Maine
•Rangley, Davis Marine Seaplane Base 2 S

Mississippi
Fort Adams, Kees Ranch 8 N
Lucidale, Farmco Fld 11 S
Monticello, Clay 1 N
Tylertown 2.5 NW

Missouri
Desota 0.5 E

Montana
Anaconda, Mt. Haggins Landing Strip 11.5 SW
•Frazer (Fort Peck) Browns Airfield 14 S
•Lustre, Wall 6 NE

Nebraska
Oxford 2 W

Nevada
Coaldale 1 S
Fernley, Southwest Gas Airstrip 3 SE
Pahrump, Hidden Hills 16 SE
Round Mountain, R. O. Ranch 15 N
•Wellington, Valley View Arpk 5 NNW

New Jersey
Newton 1.9 S

New Mexico
Loco Hills 0.2 S

New York
•Alexandria Bay, Maxson Fld 1.3 S
Brant Air Service Landing Area 1 SW
West Bloomfield Flying Club 1.5 SW

North Dakota
Rutland, Pearson 4.5 N

Ohio
Galloway, Columbus Arpk, Inc. 3 NE of West Jefferson

Oklahoma
•Dustin 2 SE

South Carolina
Union County 2 SW

Tennessee
•Cedar Hill, Flying W Ranch 7 S
Spring Hill, Haynes Haven Farm 3 SW

Texas
Eldorado, Derrick Ranch 21 E
Fort Worth, Oak Grove Heliport 13 S
Graford, Harmar Marina 12 WSW
Grandview, McLeroy Ranch 2 NNW
Honey Grove, Burchinal 2 W
Laredo, Link Ranch 6 S
Martin, Huff Fld 1 SE
Mesquite, Cole 5 SE
•Perryton, Harbaugh 22S
Port Lavaca, Calhoun County 4 NW
Sabinal, McCullough Ranch 12 N
Vernon, Lockett 6 SW
•Zapata, Jennings Ranch 18 NE

Washington
Enumclaw 1.4 WSW
•Stanwood, Strev Air 3 NW

West Virginia
Alderson, Riverside 1 W

Wyoming
Marshall, Robbins 2 S

Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

Alabama
•Haynesville, Beechwood 5 SW (c)

Arkansas
•Berryville 1 NW (a)
•Gassville, Red Bud Trout Dock 1 S (a)

California
Buttonwillow-Kern Co. (a)
Culver City, Hughes (c)

Connecticut
Marlborough-Lesenwski 3 SE (c)

Delaware
Magnolia, Johnson adj W (c)

Florida
•Everglades 1 SW (a)
Geneva, Bruce 3 SE (a)
•Samsula, Spruce Creek 3 N (a)

Illinois
•Tinley Park, Prosperi 1 W (a)

Kansas
•Geneseo, Kratzer 5 NW (a)

Louisiana
•Hackberry adj NW (a)
•Harvey Seaplane Base adj S (a)
•Montgomery, Hall 1 NW (a)
•New Iberia, Dugas 3N (a)
Wisner Airstrip 1 W(c)

Maryland
Baltimore, Rutherford 7 NW (c)
•Silesia, Bower Fld 2 N (c)

Michigan
•Gaylord, Au Sable Ranch 5 SE (c)

Mississippi
Belzoni Charter Service 1 E(a)
Magnolia, Progress 10 SE(a)

Missouri
St. Joseph, Eastside 1 E(a)

Montana
•Gallatin Gateway, Nine Quarter Circle Ranch 32 S (c)
•Havre, Davis 10 NE (c)
Lodge Grass, Pope 8 SE (a)
•Sand Springs, Kreider Ranch adj S (c)

New York
Albany, Tallent Fld 6.5 SW(a)
•Chippewa Bay, Allens Fld 2 NW (a)
Kerhonkson, Piolis Brookside 4 NNW(c)
Lafargeville, Tims Angus Farms 3 E (c)

North Carolina
Gibsonville, McLean Bros 1 SW(c)

Ohio
Amelia, Sky Hill NE (a)
•Caldwell, Myrtle Fld 3 S (a)
• Canal Winchester, Anderson 3 SE (c)
Circleville, Elsea 2 N (a)
•Cleveland, Burke Lakefront Seaplane Base 1 N (a)
Norwalk, 2N (a)
Tiffin, Circle V Flying Fld 4SW (a)

Oklahoma
Muscogee, Schumacher 3 S(a)

Pennsylvania

Hawley-Greenetown Mountain Bay, Lake Wallenpaupack 6 SW (a)
Mahanoy City, Bedinsky 2 SE (c)

Texas

Arlington, Lucas 3 SW (c)
●Cotton Center Starnes 7 S (a)
Palacios, Richman 5 NE (c)
●Pecan Gap 1 SW (c)
San Angelo, West Texas Boys Ranch 15 SW (a)
●San Antonio, Intl Heliport 7 N (a)
Sanderson 2 W (a)
Sudan Adj S (a)
Valentine 1 NW (a)

Utah

Torrey 1 S (a)

West Virginia

Fairmont Muni 2 SE (a)

Wisconsin

Neenah, Valley Airways 3 SW (c)
Plymouth, Carm 2 NW (a)
Sturtevant, Air City (a)

MILITARY AERIAL REFUELING TRACKS

Effective February 7, 1966

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 072/88		FSD 003/67.
		MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 092/77		FSD 346/42.
		MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N. Dak., S. Dak.	FAR 225/42		SAW 242/39.
		SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N. Dak., S. Dak.	ABR 038/37		SAW 219/62.
		SAW 151/64		FAR 137/65.
AR-110 Advance	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
		LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
AR-307 Big Fish	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
AR-308 Blue Cross	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC.
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription on request to the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Md. 20852 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section II–A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B–52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,800' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL; to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

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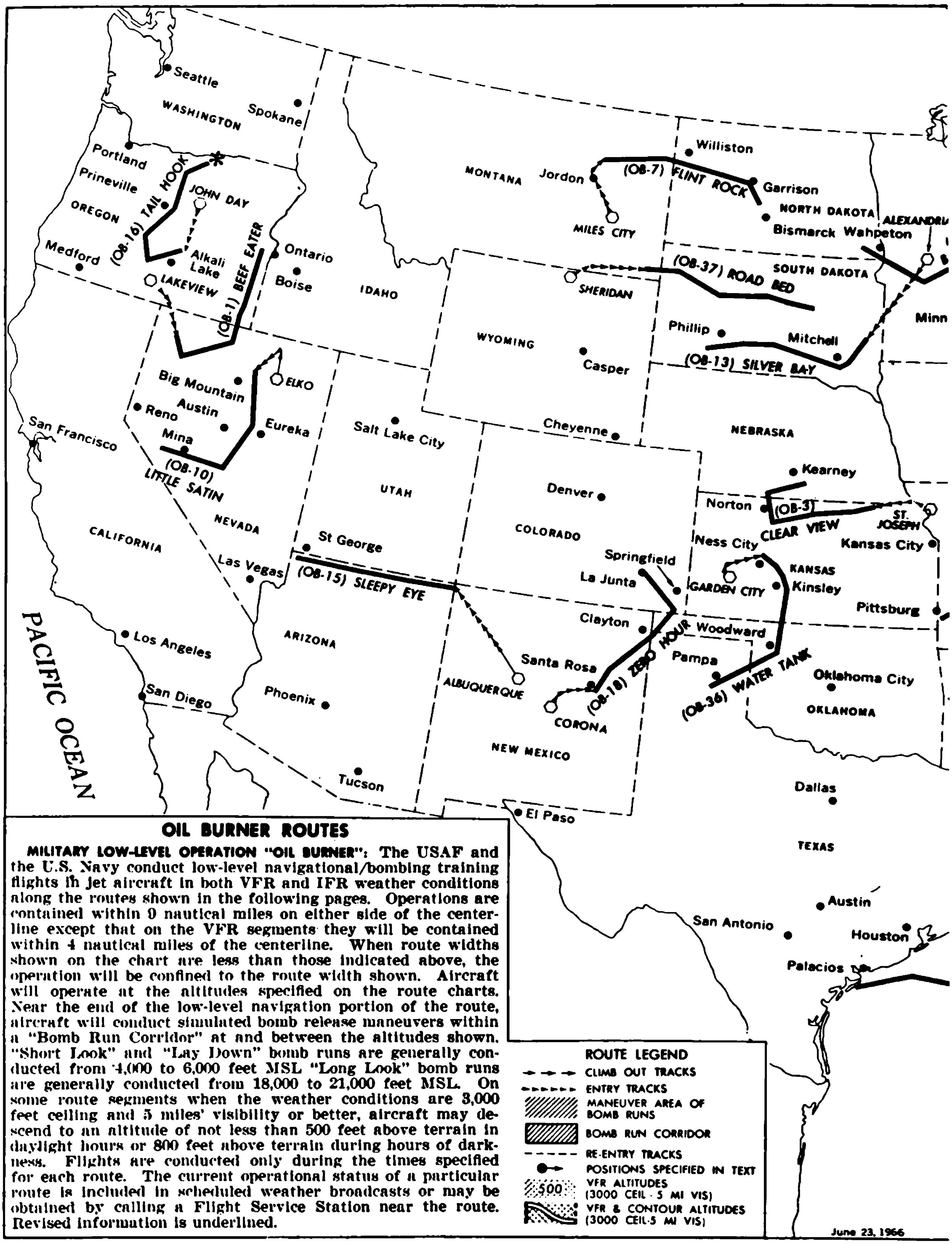
INDEX OF OIL BURNER ROUTES


Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
LAKEVIEW
(OB-1) BEEF EATER
Ontario
Boise
IDAHO
MONTANA
Jordon
(OB-7) FLINT ROCK
MILES CITY
Williston
Garrison
NORTH DAKOTA
Bismarck
Wahpeton
ALEXANDRI
SOUTH DAKOTA
(OB-37) ROAD BED
SHERIDAN
WYOMING
Casper
Phillip
Mitchell
(OB-13) SILVER BAY
Minn
Big Mountain
Austin
Reno
ELKO
Eureka
Mina
(OB-10) LITTLE SATIN
San Francisco
Salt Lake City
Cheyenne
NEBRASKA
Kearney
UTAH
Denver
COLORADO
Norton
(OB-3) CLEAR VIEW
ST. JOSEPH
Ness City
Kansas City
NEVADA
CALIFORNIA
St George
Las Vegas
(OB-15) SLEEPY EYE
Springfield
La Junta
GARDEN CITY
KANSAS
Kinsley
Pittsburg
ARIZONA
Clayton
Woodward
Los Angeles
Santa Rosa
ALBUQUERQUE
(OB-18) ZERO HOUR
Pampa
(OB-36) WATER TANK
Oklahoma City
OKLAHOMA
San Diego
Phoenix
CORONA
NEW MEXICO
PACIFIC OCEAN
Tucson
El Paso
Dallas
TEXAS
Austin
San Antonio
Houston
Palacios

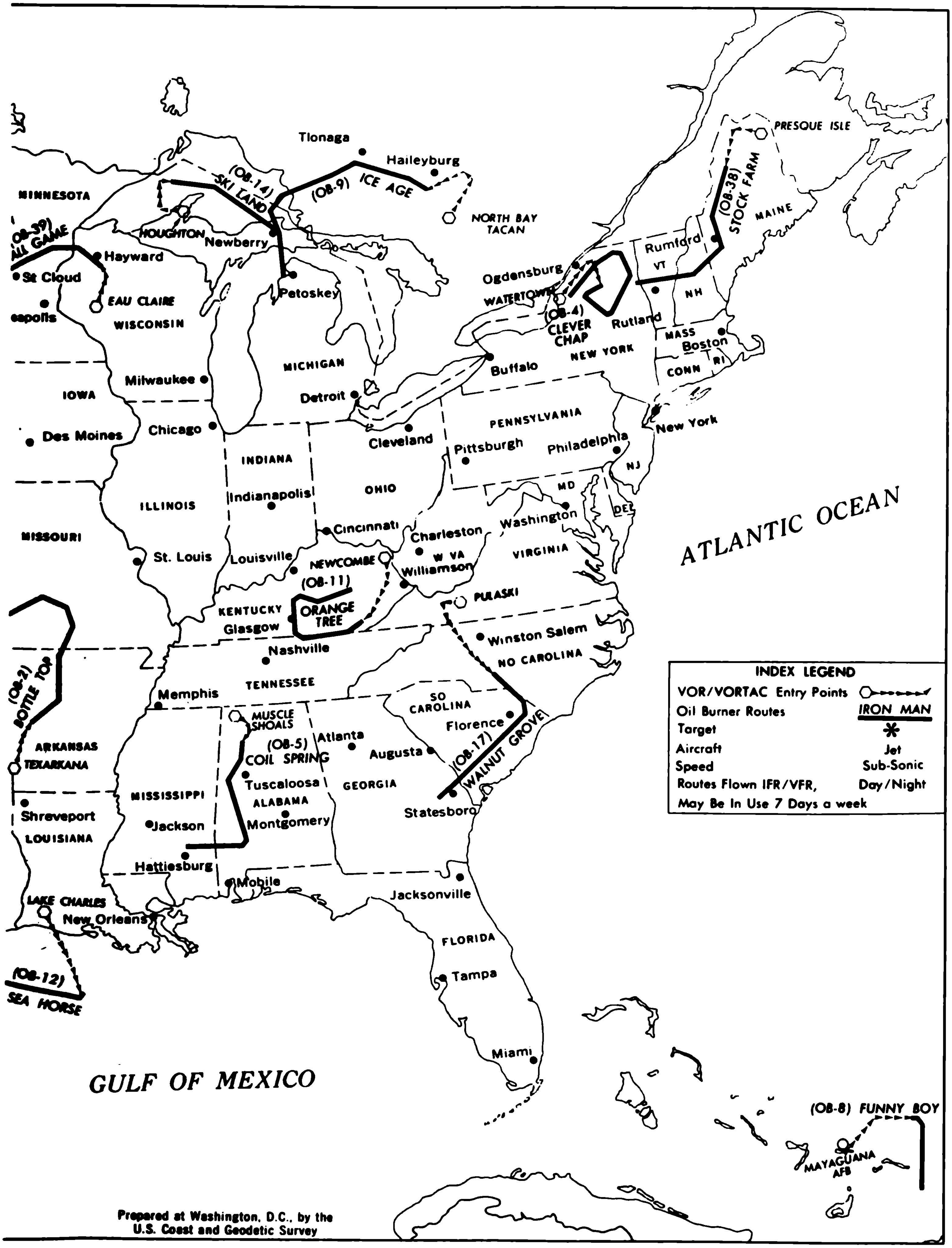
OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

ROUTE LEGEND
CLIMB OUT TRACKS
ENTRY TRACKS
MANEUVER AREA OF BOMB RUNS
BOMB RUN CORRIDOR
RE-ENTRY TRACKS
POSITIONS SPECIFIED IN TEXT
500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

June 23, 1966

INDEX OF OIL BURNER ROUTES


Tionaga
Haileyburg
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
PRESQUE ISLE
(OB-38) STOCK FARM
MAINE
MINNESOTA
(OB-39) ALL GAME
HOUGHTON
Newberry
Hayward
St Cloud
EAU CLAIRE
eapolis
WISCONSIN
Petoskey
Rumford
VT
NH
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
Rutland
MASS
Boston
RI
CONN
NEW YORK
Buffalo
MICHIGAN
Milwaukee
IOWA
Detroit
Des Moines
Chicago
PENNSYLVANIA
New York
Cleveland
Pittsburgh
Philadelphia
NJ
INDIANA
ILLINOIS
Indianapolis
OHIO
MD
DEL
MISSOURI
Cincinnati
Charleston
Washington
W VA
ATLANTIC OCEAN
St. Louis
Louisville
NEWCOMBE
(OB-11)
Williamson
VIRGINIA
PULASKI
KENTUCKY
ORANGE TREE
Glasgow
Winston Salem
NO CAROLINA
Nashville
(OB-2) BOTTLE TOP
Memphis
TENNESSEE
SO CAROLINA
Florence
MUSCLE SHOALS
(OB-5) COIL SPRING
Atlanta
Augusta
(OB-17) WALNUT GROVE
ARKANSAS
TEXARKANA
Tuscaloosa
ALABAMA
GEORGIA
MISSISSIPPI
Shreveport
LOUISIANA
Jackson
Montgomery
Statesboro
Hattiesburg
Mobile
Jacksonville
LAKE CHARLES
New Orleans
FLORIDA
(OB-12) SEA HORSE
Tampa
Miami
GULF OF MEXICO
(OB-8) FUNNY BOY
MAYAGUANA AFB
INDEX LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes
IRON MAN
Target
Aircraft
Jet
Speed
Sub-Sonic
Routes Flown IFR/VFR,
Day/Night
May Be In Use 7 Days a week

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

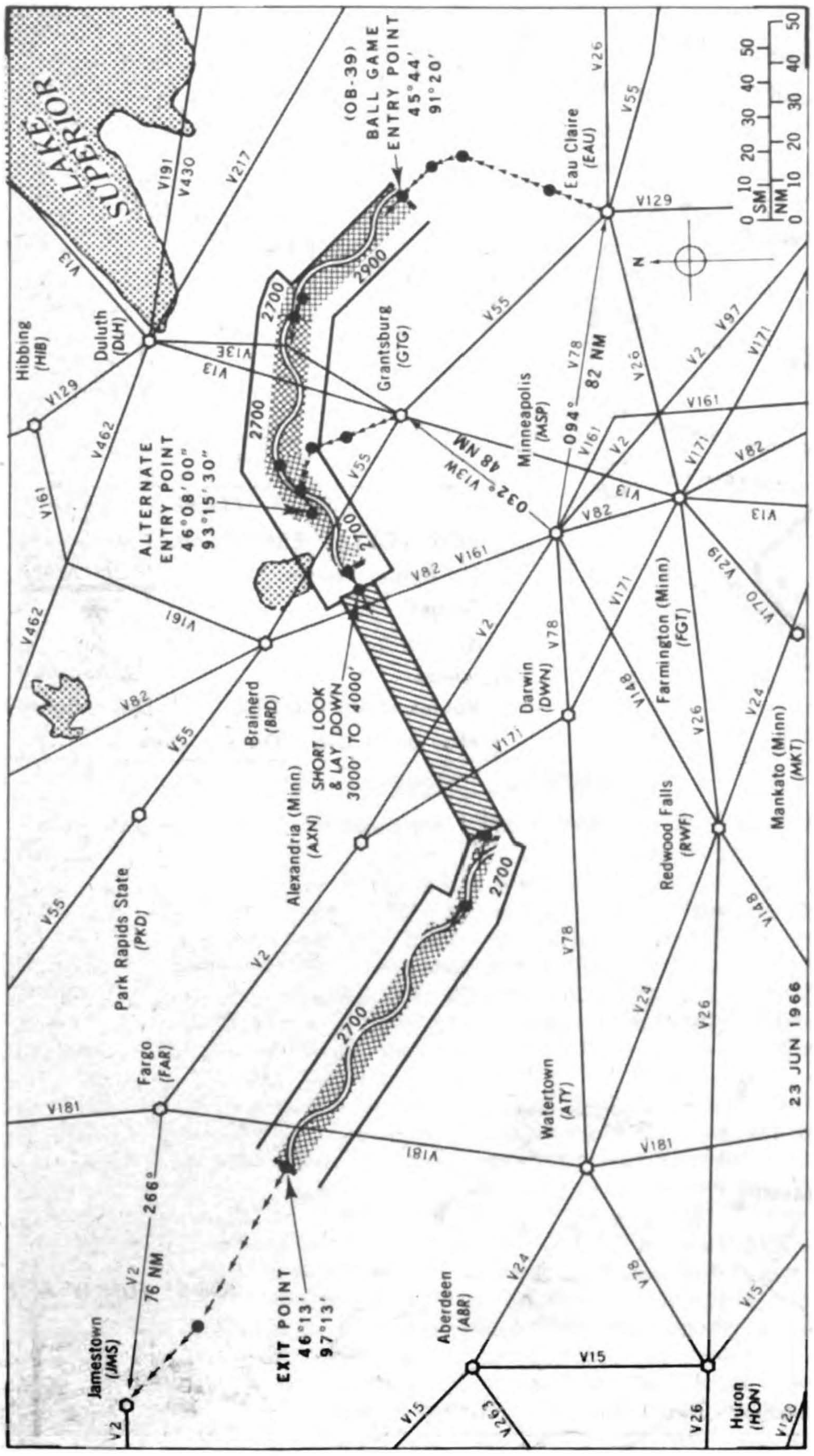
OIL BURNER ROUTES

MINNESOTA/NORTH DAKOTA/SOUTH DAKOTA/ WISCONSIN

BALL GAME OB-39

Effective August 1, 1966 thru December 16, 1966

Aircraft shall cross Minneapolis VORTAC 094/82 DME fix (Eau Claire, Wisc. VOR) at FL 230 or as assigned by ARTCC; then at FL 230 or assigned altitude direct to 45°08'N, 91°20'W; then start descent so as to cross 45°29'N, 91°07'W at or below 11,000' MSL; then turn left descending to 45°37'N, 91°10'W; then continue descent direct so as to cross 45°44'N, 91°20'W, the low level entry point, at 2,900' MSL; then at 2,900' MSL direct 46°10'N, 91°56'W; then turn left descending so as to cross 46°12'N, 92°02'W at 2,700' MSL; then at 2,700' MSL direct to 46°16'30"N, 92°56'W; then at 2,700' MSL direct to 46°00'N, 93°35'30"W then climb so as to cross 45°57'N, 93°42'W at 3,000' MSL.


LAKE SUPERIOR
(OB-39) BALL GAME ENTRY POINT 45°44' 91°20'
Eau Claire (EAU)
0 10 20 30 40 50 SM
0 10 20 30 40 50 NM
Hibbing (HIB)
Duluth (DLH)
Grantsburg (GTG)
Minneapolis (MSP)
094° 82 NM
032° 48 NM
ALTERNATE ENTRY POINT 46°08'00" 93°15'30"
SHORT LOOK & LAY DOWN 3000' TO 4000'
Brainerd (BRD)
Alexandria (Minn) (AXN)
Darwin (DWN)
Farmington (Minn) (FGT)
Redwood Falls (RWF)
Mankato (Minn) (MKT)
Park Rapids State (PKD)
Fargo (FAR)
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
Jamestown (JMS)
266° 76 NM
EXIT POINT 46°13' 97°13'
2900
2700
23 JUN 1966
V191
V430
V217
V55
V26
V129
V78
V97
V2
V171
V161
V82
V462
E1A
3E1A
V24
V148
V181
V15
V120
V219
V170
V63

Short Look and Lay Down—After passing 45°57'N, 93°42'W, aircraft shall operate between 3,000' MSL and 4,000' MSL through the bomb run corridor (4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N, 95°10'W). After exiting the bomb run corridor at 45°25'W, 95°10'W, aircraft shall descend direct so as to cross 45°31'N, 95°36'W at 2,700' MSL; then at 2,700' MSL direct 46°13'N, 97°13'W. After exiting the route at 46°13'N, 97°13'W, aircraft shall start climb so as to cross 46°39'N, 98°12'W at FL 200 or above; then climb direct so as to cross Fargo, N.D. VORTAC DME 266/76 fix (Jamestown, N.D. VOR) at FL 250.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°44'N, 91°20'W to 46°00'N, 93°35'30"W and from 45°25'N, 95°10'W to 46°13'N, 97°13' W.

Alternate Entry—Aircraft shall cross the Minneapolis VORTAC 032/48 DME fix (Grantsburg, Wisc. VOR) at FL 230 or as assigned by ARTCC, then descend so as to cross 46°00'N, 92°47'30"W at 17,000' MSL or above; then continue descent direct so as to cross 46°08'N, 92°51'30"W at 13,000' MSL or above; then turn left continuing descent so as to cross 46°12'N, 93°06'W at 7,000' MSL; then continue descent so as to cross 46°08' N, 93°15'30"W at 2,700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM on the northeast side of centerline from 45°44'N, 91°20'W to 46°10'N, 91°56'W and 4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N 95°10'W and 4 NM on the north side of centerline from 45°25'N, 95°10'W to 45°31'N, 95°36'W. The VFR route width is reduced to 2 NM on the northeast side of centerline from 46°08'N, 93°15'30"W to 46°00'N, 93°35'30"W and to 2 NM on the north side of centerline from 45°25'N, 95°10'W to 45°35'N, 95°45'W and to 2 NM on the south side of centerline from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Hours of Operation—24 hours daily, 7 days a week.

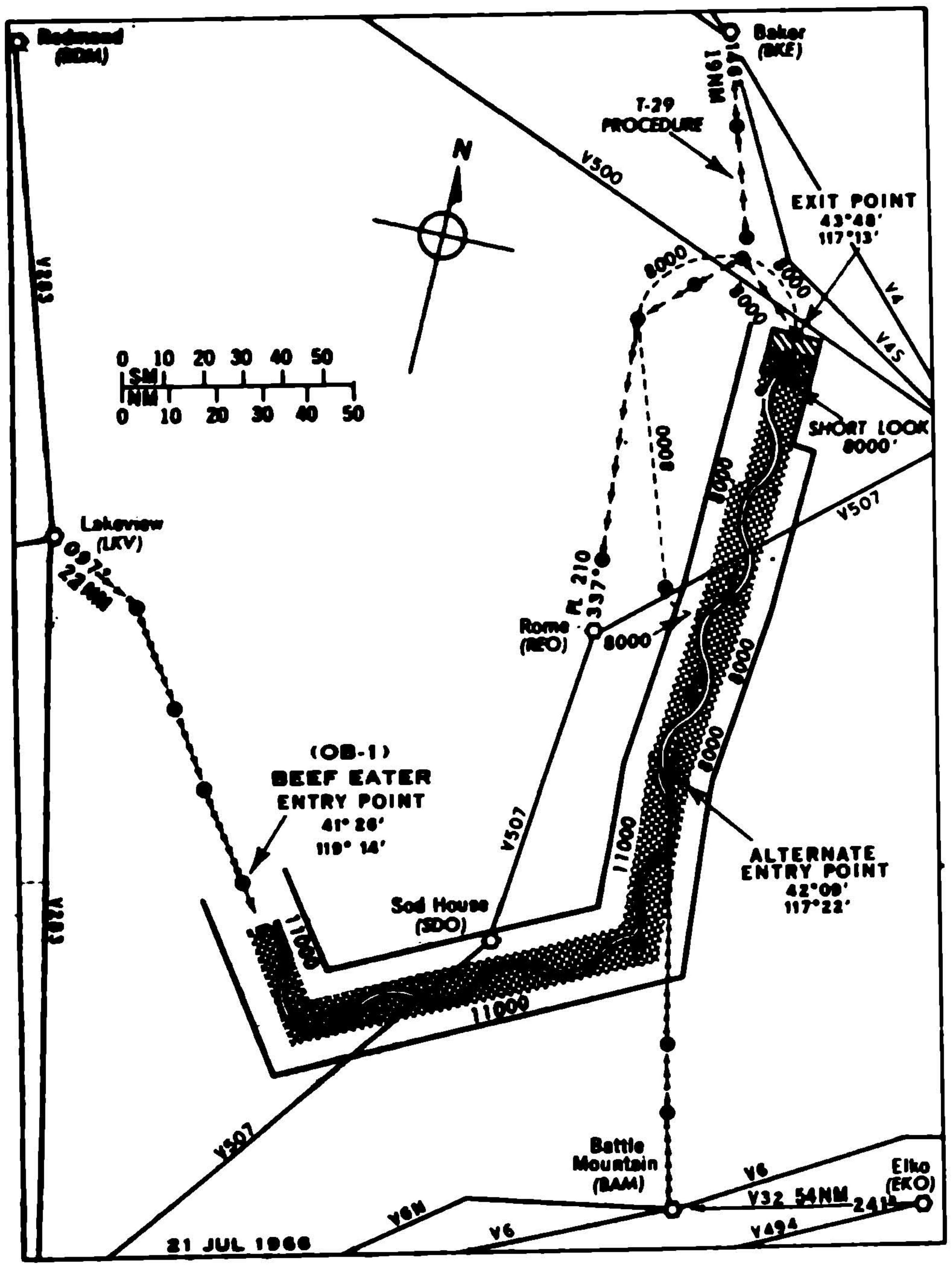
NEVADA/OREGON

BEEF EATER OB-1

Revised Effective June 19, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°-

20'N, 120°04'W); then descend direct to cross 42°00'N, 119°45'W at or below FL 230; then descend direct so as to cross 41°44'N, 119°31'W at or above 16,000' MSL; then descend direct so as to cross the entry point of the low level route at 41°26'N, 119°14'W at 11,000' MSL; then at 11,000' MSL direct to 40°58'N, 118°49'W, then 11,000' MSL direct 41°31'N, 117°20'W, 11,000' MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40' N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 210, then maintain FL 210 via the Rome, Oregon 337 radial to the Rome, Oregon VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°17'N, 119°06'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W then descend direct so as to cross 41°10'N, 117°05'W at or above 12,000' MSL; then descend direct so as to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 3 NM on the west side of centerline from 41°17'N, 119°06'W to 40°58'N, 118°49'W and to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T-29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

BOTTLE TOP OB-2

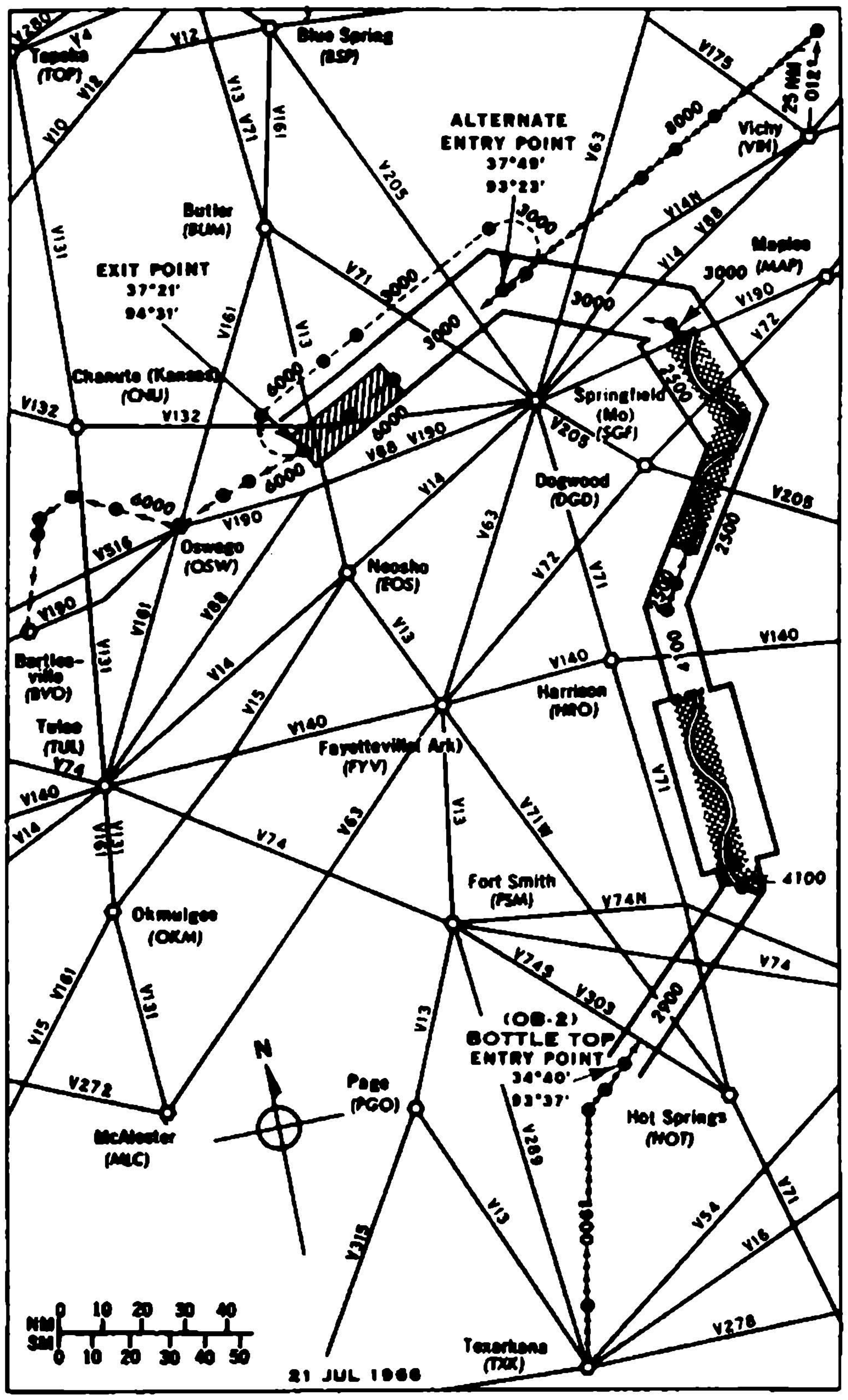
Revised Effective April 24, 1966

Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°31'W, maintain 6000' MSL, turn right to 37°32'N, 94°41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30''N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate


Topeka (TOP)
Blue Spring (BSP)
ALTERNATE ENTRY POINT 37°49' 93°23'
Vichy (VIH)
Butler (BUM)
EXIT POINT 37°21' 94°31'
Maples (MAP)
Chanute (Kansas) (CNU)
Springfield (Mo) (SGF)
Dogwood (DGD)
Oswego (OSW)
Neosho (EOS)
Bartlesville (BVO)
Tulsa (TUL)
Harrison (HRO)
Fayetteville (Ark) (FYV)
Fort Smith (FSM)
Okmulgee (OKM)
(OB-2) BOTTLE TOP ENTRY POINT 34°40' 93°37'
Hot Springs (HOT)
Page (PGO)
McAlester (MLC)
Texarkana (TXK)
N
NM SM 0 10 20 30 40 50
21 JUL 1966
4100

VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 92°34'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ARTCC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34"W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.

Route Width—The IFR route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°06'N, 92°23'W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W. The VFR route width from 35°21'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°06'N, 92°23'W is reduced to 2 NM on the east side of centerline.

Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

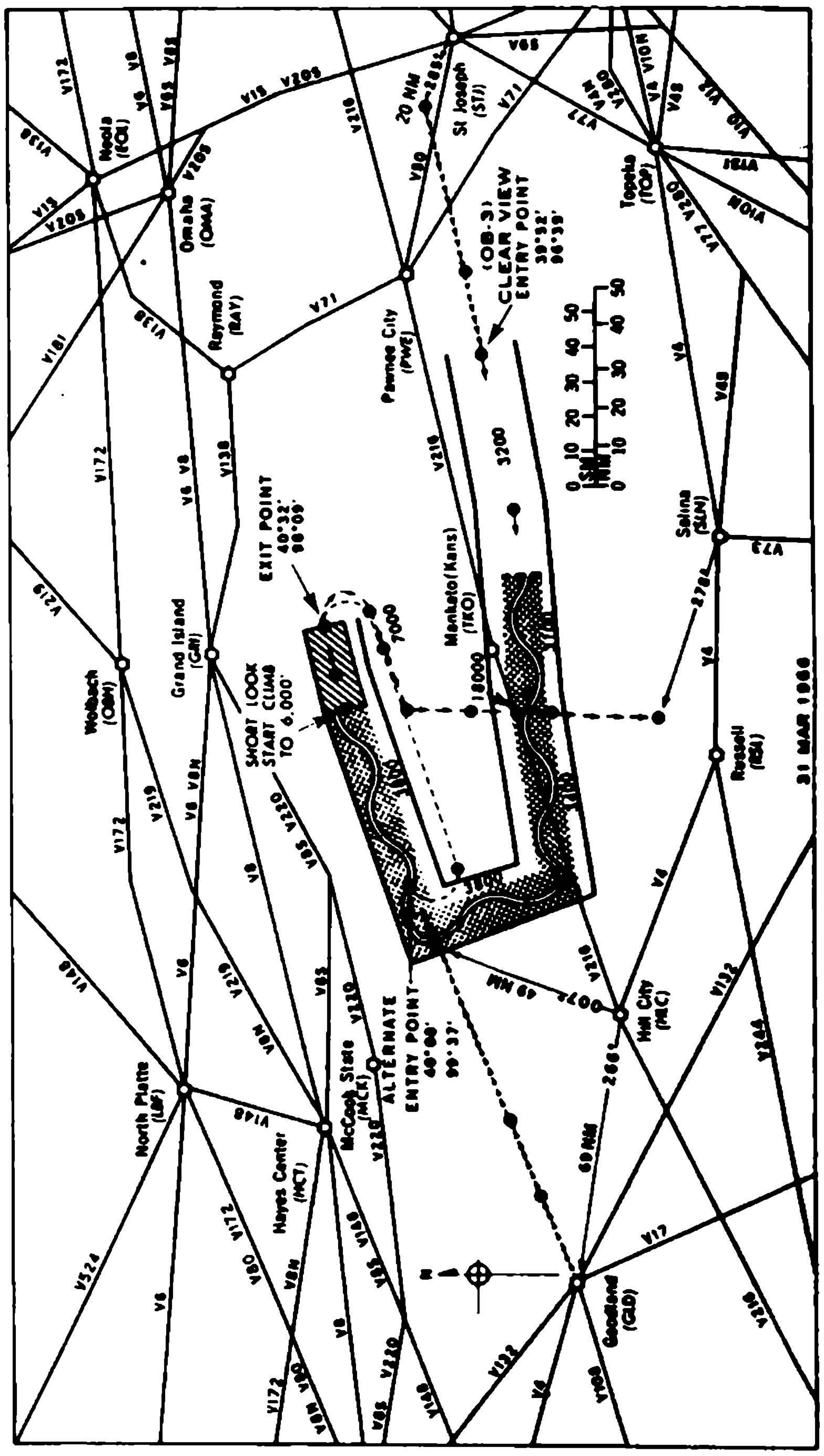
KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB-3

Revised Effective March 27, 1966

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL direct 40°03'N, 99°50'W maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this


St Joseph (STJ)
20 NM
(OB-3) CLEAR VIEW ENTRY POINT 39°52' 96°39'
Topeka (TOP)
Omaha (OMA)
Neola (FOE)
Raymond (RAY)
Pawnee City (PWE)
EXIT POINT 40°32' 98°09'
SHORT LOOK START CLIMB TO 6,000'
Grand Island (GRI)
Wolbach (OBH)
Mankato (Kans) (TKO)
Salina (SLN)
Russell (RSL)
ALTERNATE ENTRY POINT 40°03' 99°37'
North Platte (LBF)
McCook State (MCK)
Hayes Center (HCT)
Hill City (HLC)
Goodland (GLD)
NM SM 0 10 20 30 40 50
21 MAR 1966

point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (4 NM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to

cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°-09'W, turn right climbing to 7000' MSL to 40°20'N, 98°08'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.

Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

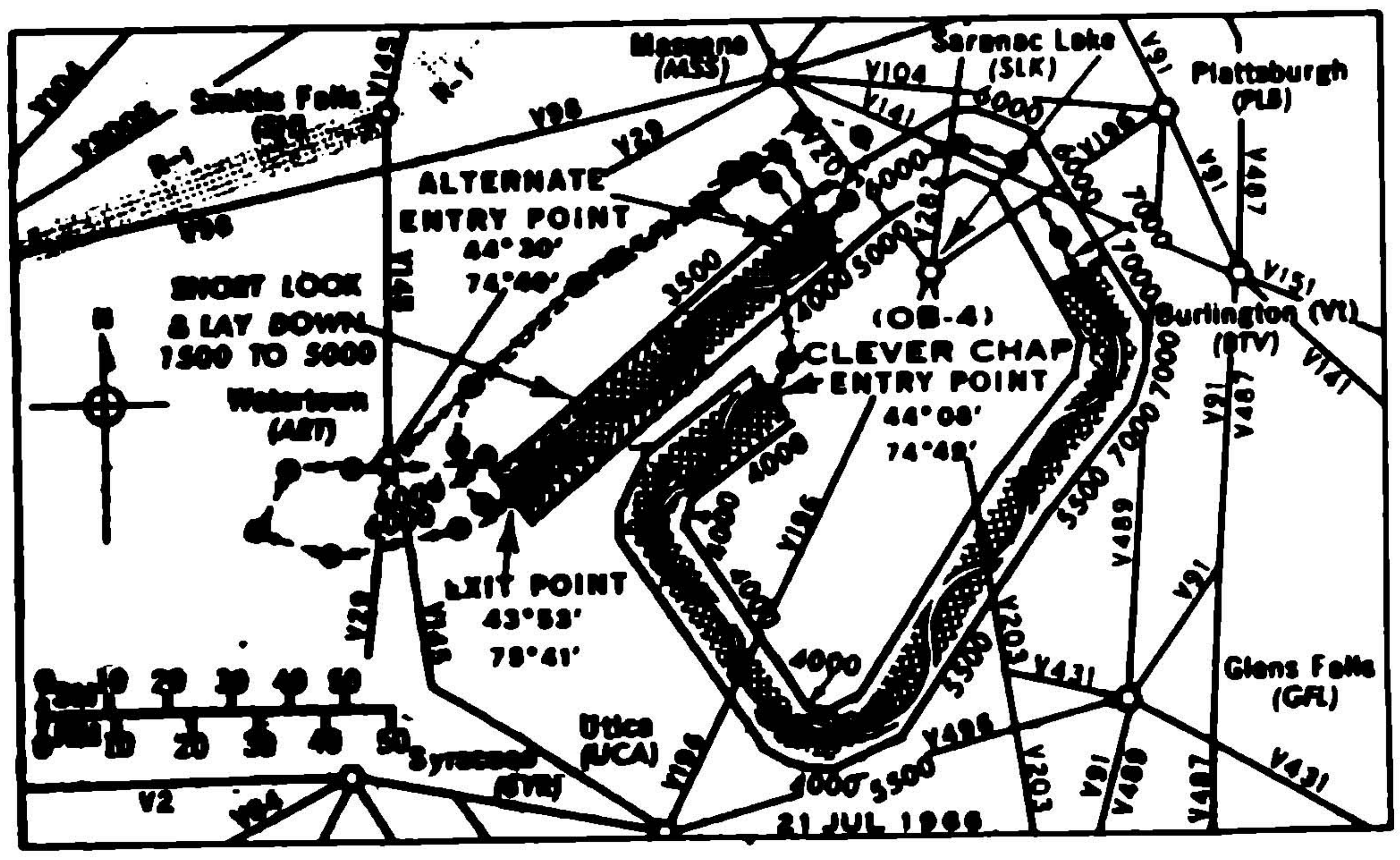
Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

CLEVER CHAP OB-4

Revised Effective February 27, 1966

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below; cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13' N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17' N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W; climb to cross 43°59'N, 73°51'W at 7,000 feet MSL; maintain 7,000 feet MSL direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL; cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.



Short Look and Lay Down—After passing 44°15'N, 75°-05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43' N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°-59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°-47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°-39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41' W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at FL 180; cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

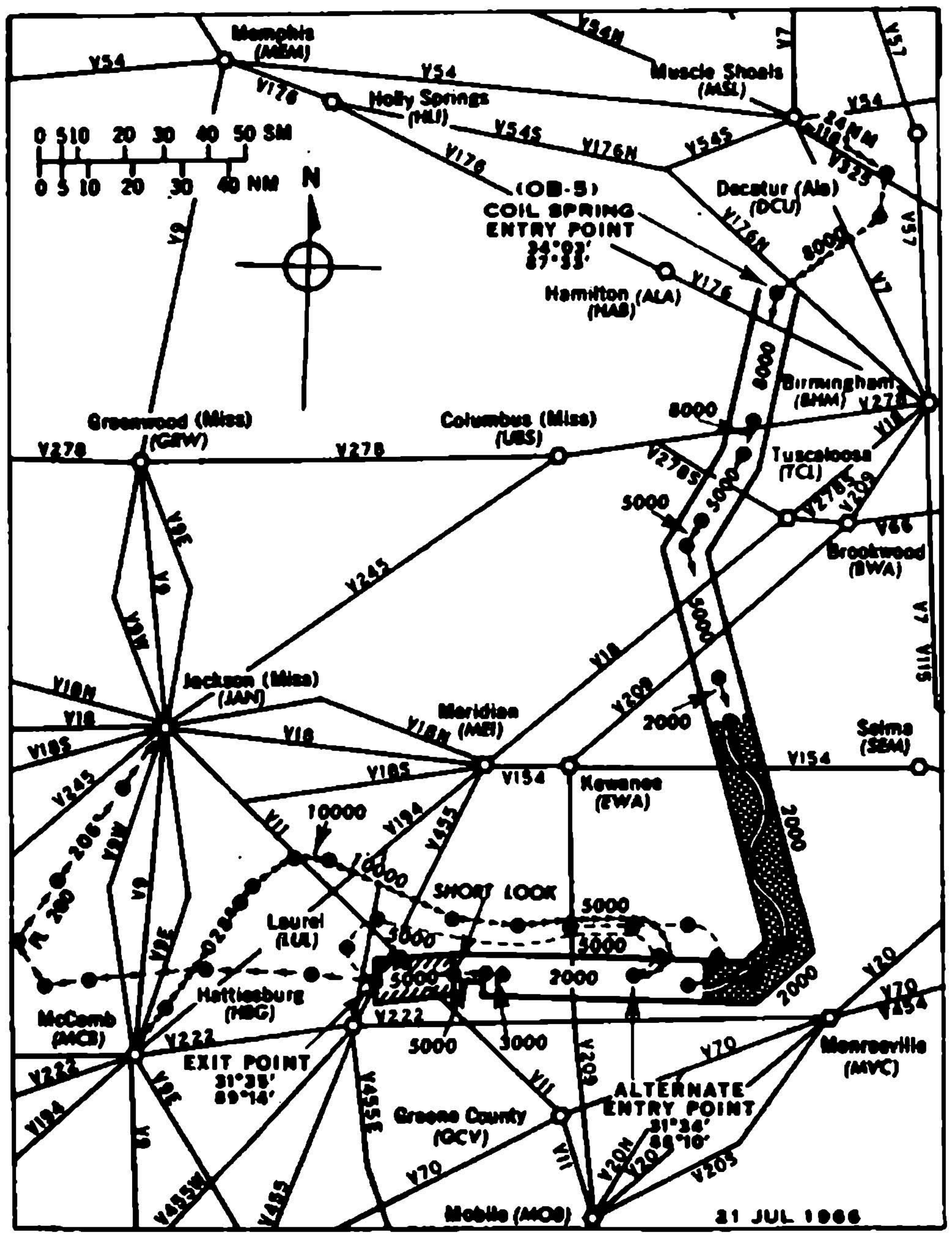
Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48'N, 75°12'W to 44°16'N, 73°39'W 2 NM either side of center line.

Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB-5

Revised Effective January 6, 1966


Memphis (MEM)
Holly Springs (HLI)
Muscle Shoals (MSL)
24 NM
116°
Decatur (Ala) (DCU)
(OB-5) COIL SPRING ENTRY POINT 34°03' 87°33'
Hamilton (ALA) (HAB)
Birmingham (BHM)
Greenwood (Miss) (GRW)
Columbus (Miss) (UBS)
Tuscaloosa (TCL)
Brookwood (BWA)
Jackson (Miss) (JAN)
Meridian (MEI)
Selma (SEM)
Kewanee (EWA)
Laurel (LUL)
Hattiesburg (HBG)
McComb (MCB)
EXIT POINT 31°35' 89°14'
SHORT LOOK
Greene County (GCV)
ALTERNATE ENTRY POINT 31°34' 88°10'
Monroeville (MVC)
Mobile (MOB)
0 5 10 20 30 40 50 SM
0 5 10 20 30 40 NM
N
8000
5000
2000
3000
10000
206°
280
028°
V54
V54S
V176
V176N
V7
V57
V325
V278
V278S
V209
V66
V11S
V9
V9E
V9W
V18
V18N
V18S
V245
V154
V194
V455
V455E
V455W
V11
V222
V70
V20
V20N
V205
V209
21 JUL 1966

Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000′ MSL; turn right, descend to cross 34°19′N, 87°06′W at 8000′ MSL, maintain 8000′ MSL direct to the route entry point at 34°03′N, 87°33′W, direct 33°35′N, 87°38′W, direct 33°28′N, 87°42′W; descend direct to cross 33°15′N, 87°52′W at 5000′ MSL, maintain 5000′ MSL direct 33°10′N, 87°56′W, direct 32°40′N, 87°48′W; descend to cross 32°31′N, 87°45′W at 2000′ MSL, maintain 2000′ MSL direct 31°41′N, 87°31′W, turn right to 31°33′N, 87°40′W, maintain 2000′ MSL direct 31°36′N, 88°42′W; climb direct to cross 31°36′N, 88°46′W at 3000′ MSL, direct to cross 31°36′N, 88°54′30″W at 5000′ MSL. In addition to the above, aircraft may climb to 3000′ MSL after 31°33′N, 87°40′W and maintain 3000′ MSL to 31°36′N, 88°54′30″ during the hours 0600Z–1200Z.

Short Look—After passing 31°36′N, 88°54′30″W aircraft shall operate through the bomb run corridor at 5000′ MSL. In addition, aircraft may operate through the bomb run corridor at 3000′ MSL during the hours 0600Z–1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36′N, 88°54′30″W to 31°35′N, 89°14′ W.) After exiting the route at 31°35′N, 89°14′W, aircraft shall cross 31°36′N, 89°30′W at 5000′ MSL; start climb direct to cross 31°37′N, 89°56′W at 14,000′ MSL (reporting point), maintain 14,000′ MSL direct 31°33′N, 90°25′W; start climb direct 31°32′N, 90°36′W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42′N, 90°44′W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55′N, 90°35′W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35′N, 89°14′W, turn right, cross 31°42′N, 89°22′W at 5000′ MSL, maintain 5000′ MSL, turn right to 31°49′N, 89°14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W; turn right, cross 31°40′N, 88°03′W at 3000′ MSL; continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route. Aircraft may proceed at 5000′ MSL from 31°48′N, 88°27′W; direct 31°48′N, 87°57′W; turn right descend to cross 31°41′N, 87°49′W at 3000′ MSL; continue turn to cross 31°34′N, 87°57′W at 2000′ MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 32°31′N, 87°45′W to 31°33′N, 87°52′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18′15″N, 90°15′29″W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000′ MSL; cross 45 NM fix at 14,000′ MSL; turn right, cross 32°01′N, 89°35′W at 10,000′ MSL, maintain 10,000′ MSL, turn right, 32°01′N, 89°27′W, direct 31°49′N, 88°55′W; descend direct, cross 31°48′N, 88°39′W at 6000′ MSL; direct, cross 31°48′N, 88°27′W at 5000′ MSL, maintain 5000′ MSL direct 31°48′N, 88°10′W; turn right cross 31°40′N, 88°03′W at 3000′ MSL continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36′N, 88°46′W to 31°36′N, 88°54′30″W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

FLINT ROCK OB-7

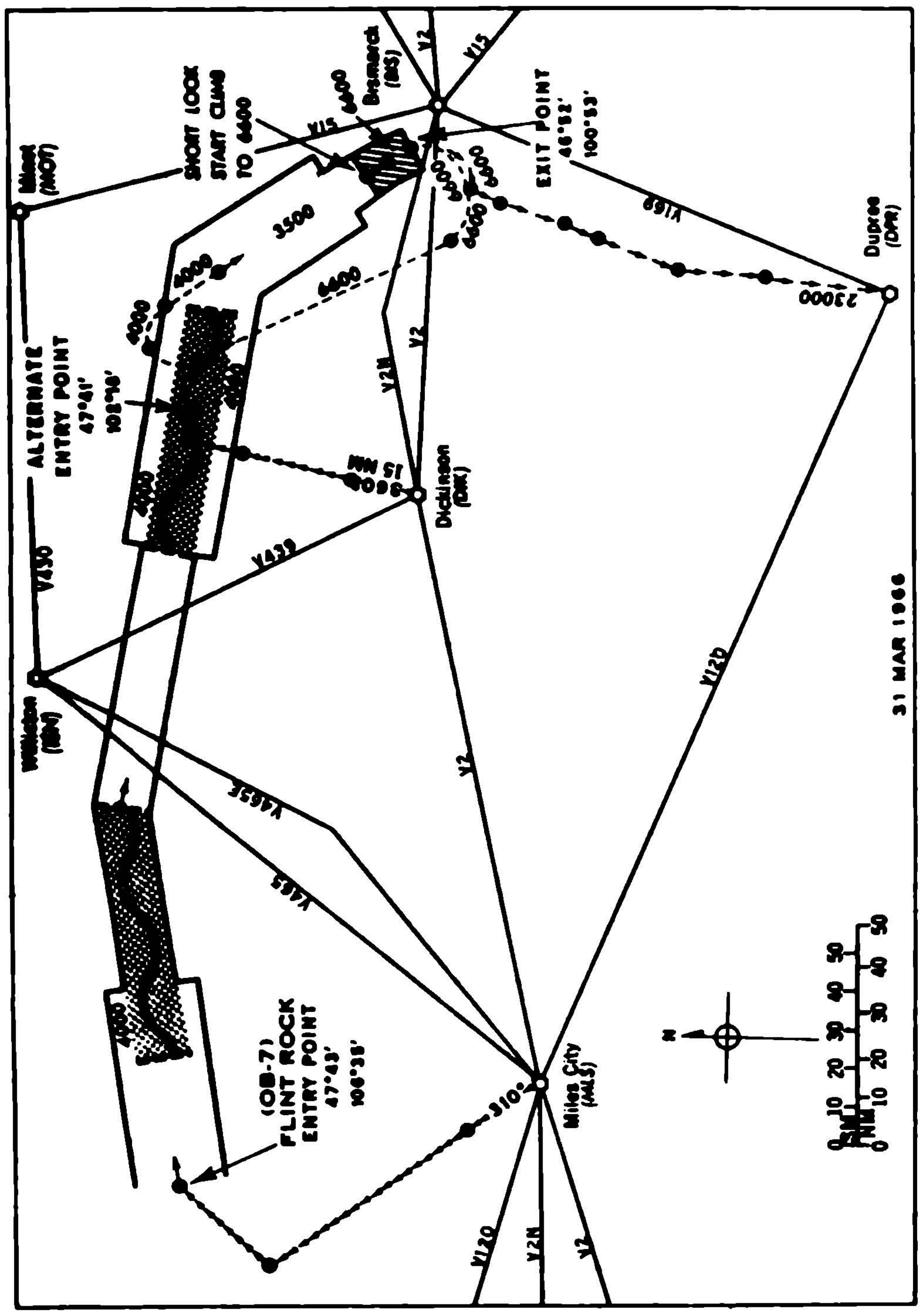
Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40′N, 106°14′W; then descend to cross 47°24′N, 107°00′W at or above 6000′ MSL; then continue descent so as to cross the route entry point, 47°43′N, 106°35′W, at 4000′ MSL; then at 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MSL direct 47°35′N, 101°31′W; then descend to 3500′ MSL direct 47°02′N, 101°02′W.

Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 4 NM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53′W); then maintaining 6600′ MSL turn right direct 46°39′N, 101°07′W; then start climb to FL 230 direct to 45°53′N, 101°35′W; direct to Dupree VORTAC, climbing so as to cross 46°30′N, 101°12′30″W at or above 8,000′ MSL; crossing 46°19′N, 101°19′W at or above

11,000′ MSL; crossing 46°13′N, 101°23′W at or below FL 190; crossing 45°53′N, 101°35′W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52′N, 100°53′W maintain 6600′ MSL direct 46°39′N, 101°07′W; then at 6600′ MSL make a right turn direct to 46°43′N, 101°24′W; then at 6600′ MSL direct 47°40′N, 102°00′W the descending so as to cross 47°50′N, 101°56′W at 4000′ MSL; then continue turn direct 47°47′N, 101°42′W; then direct at 4000′ MSL to 47°35′N, 101°31′W, thence via the published route.


Minot (MOT)
SHORT LOOK START CLIMB TO 6600
Bismarck (BIS)
V2
V15
6600
EXIT POINT 46°52′ 100°53′
V169
Dupree (DPR)
23000
3500
6400
6600
4000
ALTERNATE ENTRY POINT 47°41′ 102°16′
15 NM
360°
Dickinson (DIK)
V2N
V430
V439
Williston (ISN)
V120
31 MAR 1966
V465E
V465
(OB-7) FLINT ROCK ENTRY POINT 47°43′ 106°35′
310°
Miles City (MLS)
N
SM
NM
0 10 20 30 40 50

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 47°48′N, 105°53′W to 47°57′N, 104°30′W and from 47°47′N, 103°03′W to 47°37′N, 101°45′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000′ MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000′ MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31′N, 102°32′W at 8,000′ MSL; then descend direct so as to cross 47°42′30″N, 102°27′W at 6,000′ MSL; then a descending right turn so as to cross 47°41′N, 102°18′W at 4000′ MSL, thence via the published route.

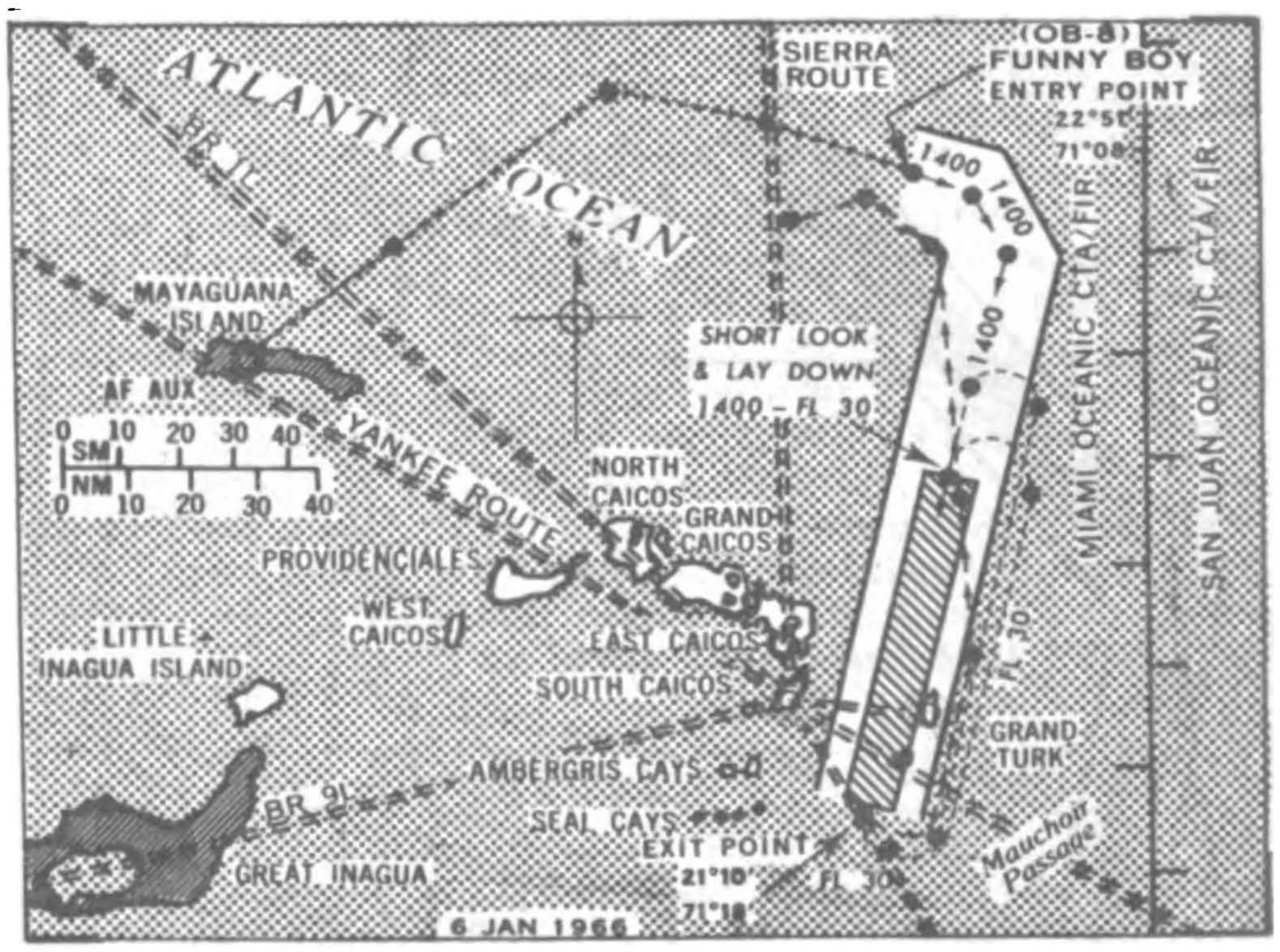
Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50′N, 105°30′W to 47°47′N, 103°03′W and from 47°07′N, 101°06′W to 46°52′N, 100°53′W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY OB–8

Revised Effective February 6, 1966

Aircraft shall cross 22°23′N, 73°02′W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41′N, 72°35′W (reporting point); start descent, cross 23°05′N, 72°00′W at FL 150; right turn, cross 23°00′N, 71°33′W at FL 90 or below; cross 22°51′N, 71°08′W at 1400′ MSL (the route entry point); maintain 1400′ MSL direct 22°48′N, 70°58′W; turn right to 22°39′N, 70°53′W; direct 22°04′N, 71°03′W.


ATLANTIC OCEAN
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°51′ 71°08′
1400
MAYAGUANA ISLAND
AF AUX
SHORT LOOK & LAY DOWN 1400 – FL 30
SM
NM
0 10 20 30 40
YANKEE ROUTE
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
LITTLE INAGUA ISLAND
EAST CAICOS
SOUTH CAICOS
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR
FL 30
GRAND TURK
AMBERGRIS CAYS
BR 91
SEAL CAYS
EXIT POINT 21°10′ 71°18′
Mouchoir Passage
GREAT INAGUA
6 JAN 1966

Short Look and Lay Down—After passing 22°04′N, 71°03′W, aircraft shall maintain between 1400′ and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04′N, 71°03′W to 21°10′N, 71°18′W). After exiting the route at 21°10′N, 71°18′W, aircraft shall turn left, cross 21°03′N, 71°14′W at FL 30; maintain FL 30 to 21°06′N, 71°08′W, direct 21°35′N, 71°00′W; start climb, cross 22°00′N, 71°02′W at FL 110 or above cross 22°40′N, 71°06′W at FL 250 or above; left turn to 22°48′N, 71°16′W; cross 22°45′N, 71°30′W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10′N, 71°18′W, turn left cross 21°03′N, 71°14′W at FL 30; maintain FL 30 to 21°06′N, 71°08′W; direct 22°01′N, 70°53′W; turn left descend to cross 22°04′N, 71°03′W at 1400′; thence via the published route. Aircraft may proceed at FL 30 from 21°06′N, 71°08′W; direct 22°14′N, 70°49′W; turn left descend to cross 22°17′N, 70°59′W at 1400′; thence via the published route.

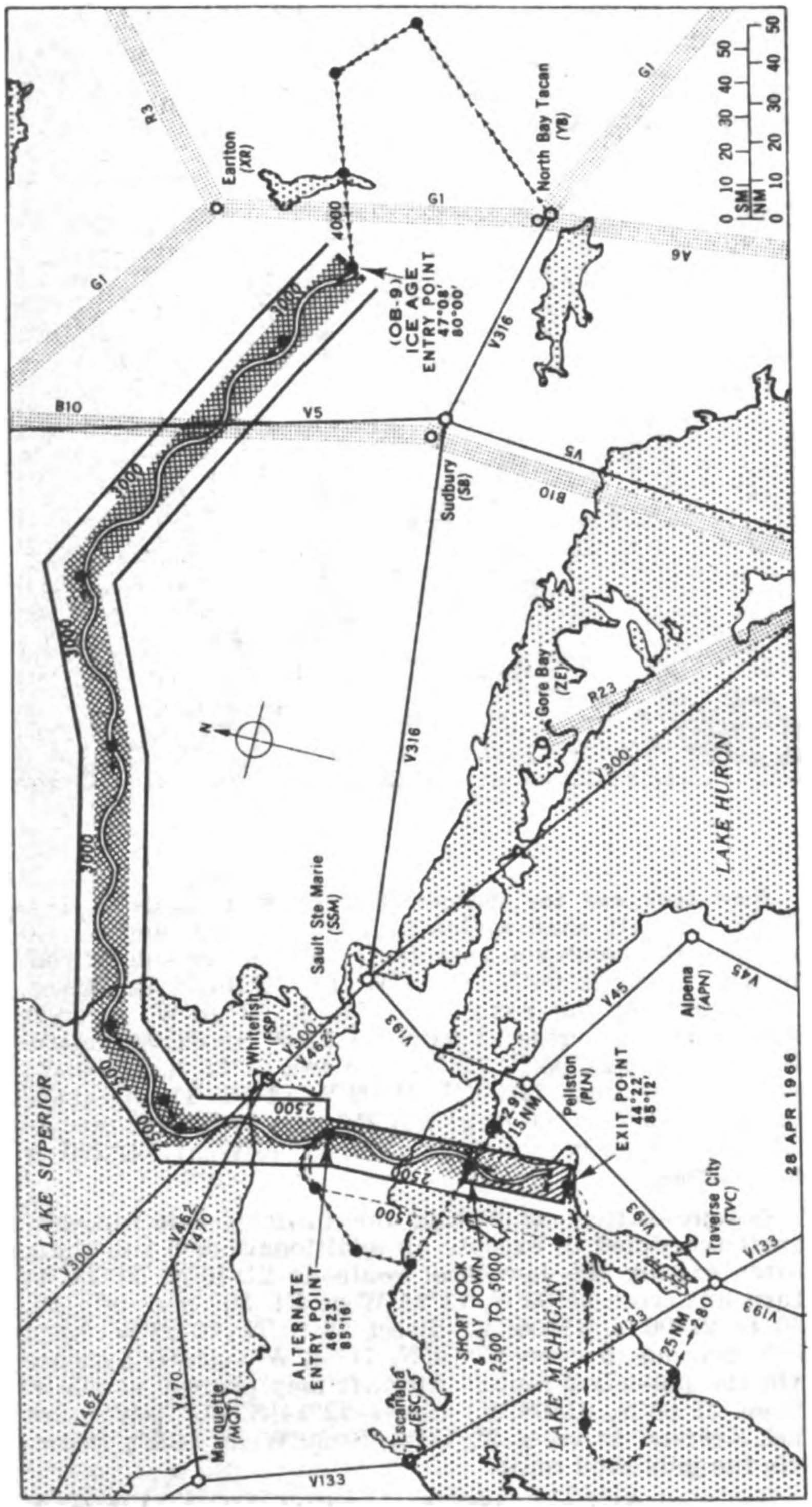
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB-9

Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°-04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°-25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.



Short Look and Lay Down—After passing 45°48′N, 85°-15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°-12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°-37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: from 47°08′N, 80°00′W to 45°27′N, 85°13′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

LITTLE SATIN OB-10

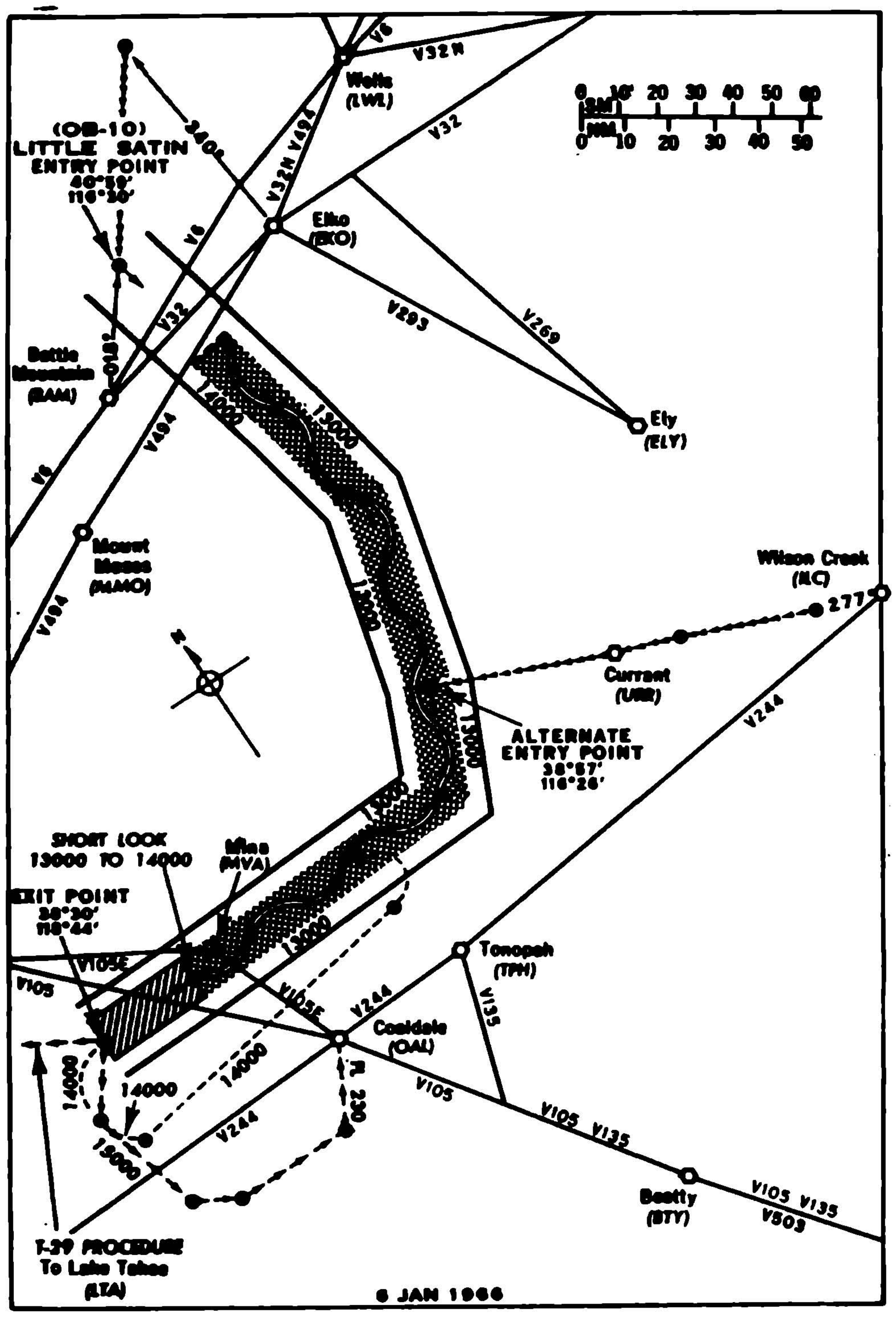
Revised Effective January 2, 1966

Aircraft shall cross 41°40′N, 115°49′W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59′N, 116°30′W (Battle Mountain VOR 018°/31) at 14,000′ MSL, then 14,000′ MSL direct 40°10′N, 116°17′W; then descend to 13,000′ MSL direct 39°42′N, 116°10′W, then 13,000′ MSL direct 38°57′N, 116°26′W, then 13,000′ MSL direct 38°34′N, 116°40′W, then 13,000′ MSL direct 38°31′N, 118°12′W.

Short Look—After passing 38°31′N, 118°12′W aircraft shall operate between a maximum altitude of 14,000′ MSL and a minimum of 13,000′ MSL thru the bomb run corridor (4 NM either side of centerline from 38°31′N, 118°12′ W to 38°30′ N, 118°44′ W). After exiting the route at 38°30′N, 118°44′W aircraft shall start climb to cross 38°15′N, 118°57′W at 15,000′ MSL; then maintain 15,000′ MSL direct 37°48′N, 118°48′W; then climb so as to cross 37°42′N, 118°36′W at or above 17,000′ MSL;

then climb direct to cross 37°42′N, 118°00′W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30′N, 118°44′W, maintain 14,000′ MSL direct 38°15′N, 118°57′W, then 14,000′ direct 38°06′N, 118°50′W direct 38°19′N, 117°12′W; then descend direct to cross 38°33′N, 117°12′W at 13,000′ MSL; thence via the published route.


V6
V32N
Wells
(LWL)
V32
V32N V494
0 10 20 30 40 50 60
SM
NM
0 10 20 30 40 50
(OB-10)
LITTLE SATIN
ENTRY POINT
40°59′
116°30′
340
Elko
(EKO)
V6
V32
V293
V269
Battle
Mountain
(BAM)
14000
13000
V494
Ely
(ELY)
V6
Mount
Moses
(MMO)
V494
N
Wilson Creek
(ILC)
277
Current
(URR)
13000
ALTERNATE
ENTRY POINT
38°57′
116°26′
V244
SHORT LOOK
13000 TO 14000
Mina
(MVA)
EXIT POINT
38°30′
118°44′
V105E
V105
13000
V105E
V244
Tonopah
(TPH)
V135
Coaldale
(OAL)
14000
14000
14000
R 230
V105
V244
13000
V105 V135
Beatty
(BTY)
V105 V135
V503
T-29 PROCEDURE
To Lake Tahoe
(LTA)
6 JAN 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 40°30′N, 116°22′W to 38°31′N, 118°12′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21′N, 114°41′W); then descend direct to cross 38°34′N, 115°18′W at or below 15,000′ MSL; then descend direct via the Currant, Nev. VOR to cross 38°57′N, 116°26′W at 13,000′ MSL, thence via the published route.

T-29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15′N, 114°23′W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30′N, 118°44′W exit point of the bomb run corridor; then climb to 14,000′ MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11′ N, 120°16′W).

Hours of Operation—24 hours daily, 7 days a week.

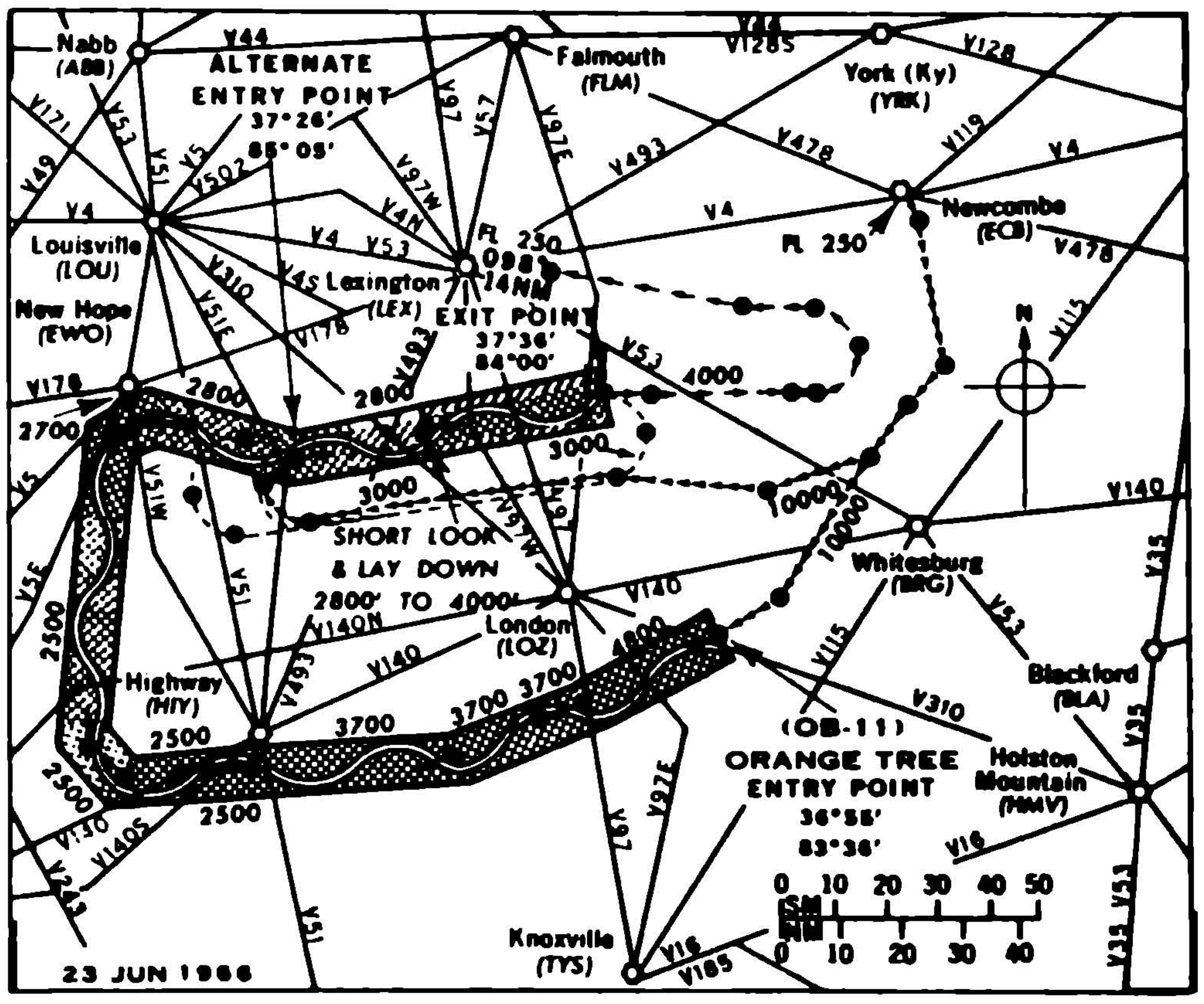
KENTUCKY/TENNESSEE

ORANGE TREE OB-11

Revised Effective June 19, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05′N, 82°53′W; then start descending to cross 37°41′N, 82°48′W at 17,000 feet MSL; cross 37°34′N, 82°55′W at 14,000 feet MSL; cross 37°25′N, 83°04′W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01′N, 83°24′W; then start descent so as to cross route entry at 36°55′N, 83°36′W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45′ N, 84°01′W; then descend so as to cross 36°41′N, 84°14′ W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°35′N, 84°32′W; direct 36°32′N, 85°15′W; descend so as to cross 36°32′N. 85°21′W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31′N, 85°40′W; then turn right to 36°36′N, 85°49′W; direct 37°28′N, 85°44′W; then turn right climb to cross 37°32′N, 85°35′W at 2800′ MSL; then at 2800′ MSL direct 37°26′N, 85°05′W; then at 2800 feet MSL direct 37°30′N, 84°38′W.

Short Look and Lay Down—After passing 37°30′N, 84°38′ W aircraft shall maintain between 2800′ and 4000′. feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30′N, 84°38′W to 37°36′N, 84°00′W). After exiting the route at 37°36′N, 84°00′W aircraft shall cross 37°36′N, 83°50′W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36′N, 83°20′W; then start climb direct 37°36′N, 83°15′W; cross 37°44′N, 83°05′W at or below 9,000 feet MSL; continue climb direct 37°50′N, 83°15′W; then climbing direct so as to cross 37°51′N, 83°30′W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56′N, 84°11′W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.


Nabb
(ABB)
V44
ALTERNATE
ENTRY POINT
37°26′
85°05′
Falmouth
(FLM)
V44
V128S
York (Ky)
(YRK)
V128
V171
V53
V51
V5
V502
V97
V57
V97E
V97W
V493
V478
V119
V4
V49
V4
Louisville
(LOU)
V4 V53
V4N
FL 250
098°
14NM
V4
FL 250
Newcombe
(ECB)
V478
V310
V51E
V45 Lexington
(LEX)
EXIT POINT
37°36′
84°00′
New Hope
(EWO)
V178
V493
V53
4000
N
V115
V178
2800
2800
2700
3000
V51W
3000
SHORT LOOK
& LAY DOWN
2800′ TO 4000′
10000
10000
V140
V5E
V51
Whitesburg
(BRG)
V53
V140N
London
(LOZ)
V140
2500
Highway
(HIY)
V140
4800
2500
3700
3700 3700
V115
Blackford
(BLA)
V310
V35
(OB-11)
ORANGE TREE
ENTRY POINT
36°55′
83°36′
Holston
Mountain
(HMV)
V35
2500
2500
V130
V140S
V243
V97E
V97
V16
0 10 20 30 40 50
SM
NM
0 10 20 30 40
V51
Knoxville
(TYS)
V16
V185
V35 V53
23 JUN 1966

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb

run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3,000 feet MSL continue right turn to 37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28' N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°-15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53' W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3,00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800' MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

Hours of Operation—24 hours daily, 7 days per week.

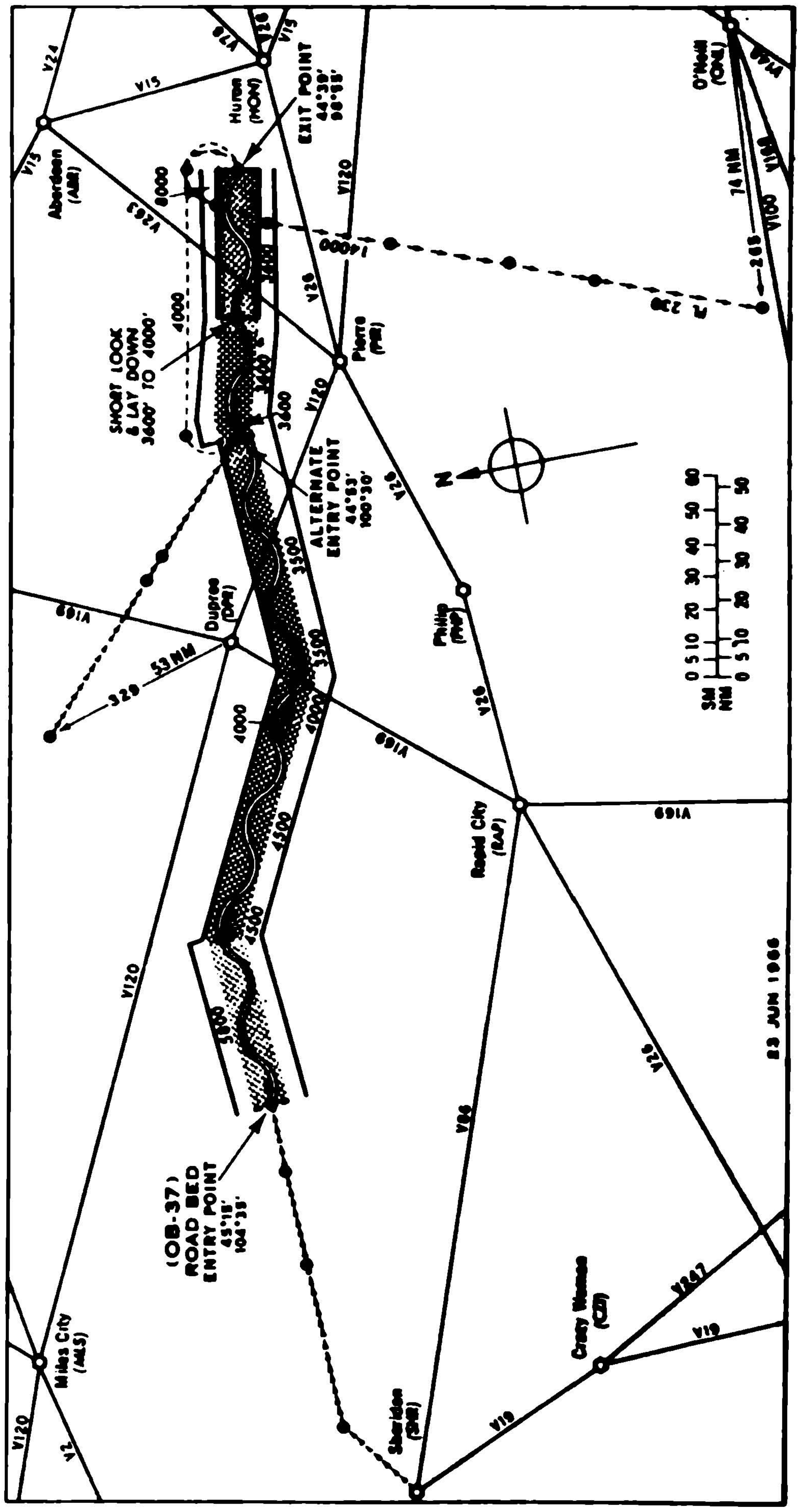
MONTANA/SOUTH DAKOTA

ROAD BED OB-37

Revised Effective June 19, 1966 through September 24, 1966

Aircraft shall cross the Sheridan, Wyoming VORTAC at FL 230 or as assigned by ARTCC; maintain FL 230 or assigned altitude direct to 45°08'N, 106°36'W; then start descent so as to cross 45°12'N, 105°35'W at or below 17,000' MSL then descend direct so as to cross 45°14'N, 105°00'W at or below 13,500 MSL continue descent so as to cross the route entry point at 45°15'N, 104°35'W at 5800' MSL; then at 5800' MSL direct to 45°20'N, 103°30'W; then descend so as to cross 45°18'N, 103°23'W at 4500' MSL; then at 4500' MSL direct 44°57'N, 102°20'W; then descend direct so as to cross 44°55'N, 102°14'W at 4000' MSL; then at 4000' MSL direct to 44°50'N, 102°00'W; then descend direct so as to cross 44°50'N, 101°55'W at 3500' MSL; then at 3500' MSL direct to 44°53'N, 100°30'W; then climb so as to cross 44°53'N, 100°23'W at 3600' MSL; then at 3600' MSL direct to the entry point of the bomb run corridor at 44°47'N, 99°49'W.

Short Look and Lay Down—After passing 44°47'N, 99°49' W, aircraft shall maintain between 3600' MSL and 4000' MSL through thhe bomb run corridor (4 NM either side of centerline from 44°47'N, 99°49'W to 44°39'N, 98°55'W). After exiting the route at 44°39'N, 98°55'W, aircraft shall turn left climbing so as to cross 44°52'N, 98°51'W at 8000' MSL; then at 8000' MSL continue left turn direct 44°47'N, 99°06'W; then start climb direct so as to cross 44°35'N, 99°17'W at 14,000' MSL; then at 14,000' MSL direct 44°05'N, 99°33'W; then/start climb direct O'Neil, Nebraska VORTAC 265/74 (42°35'N, 100°-21'W) crossing 43°36'N, 99°49'W at or above FL 200; crossing 43°16'N, 100°00'W at FL 230; then maintain FL 230 to O'Neil 265/74.



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 44°39'N, 98°55'W turn left and climb to or maintain 4000' MSL to 44°52'N, 98°51'W; then at 4000' MSL direct to 45°06'N, 100°26'W; then turn left and descend to 3500' MSL direct to 44°53'N, 100°30'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°15'N, 104°35'W to 44°39'N, 98°55'W.

Alternate Entry—Aircraft shall cross the Dupree, South Dakota VORTAC 329/53 (45°55'N, 102°06'W) at FL 200 or below as assigned by ARTCC; then descend direct so as to cross 45°23'N, 101°16'W at 16,000' MSL; then descend direct so as to cross 45°18'N, 101°08'W at or above 14,000' MSL; then descend direct so as to cross

44°53′N, 100°30′W at 3500′ MSL; thence via the published route.

Route Width—The route width is reduced to 4 NM on the north side of centerline from 45°20′N, 103°30′W to 44°53′N, 100°30′W.

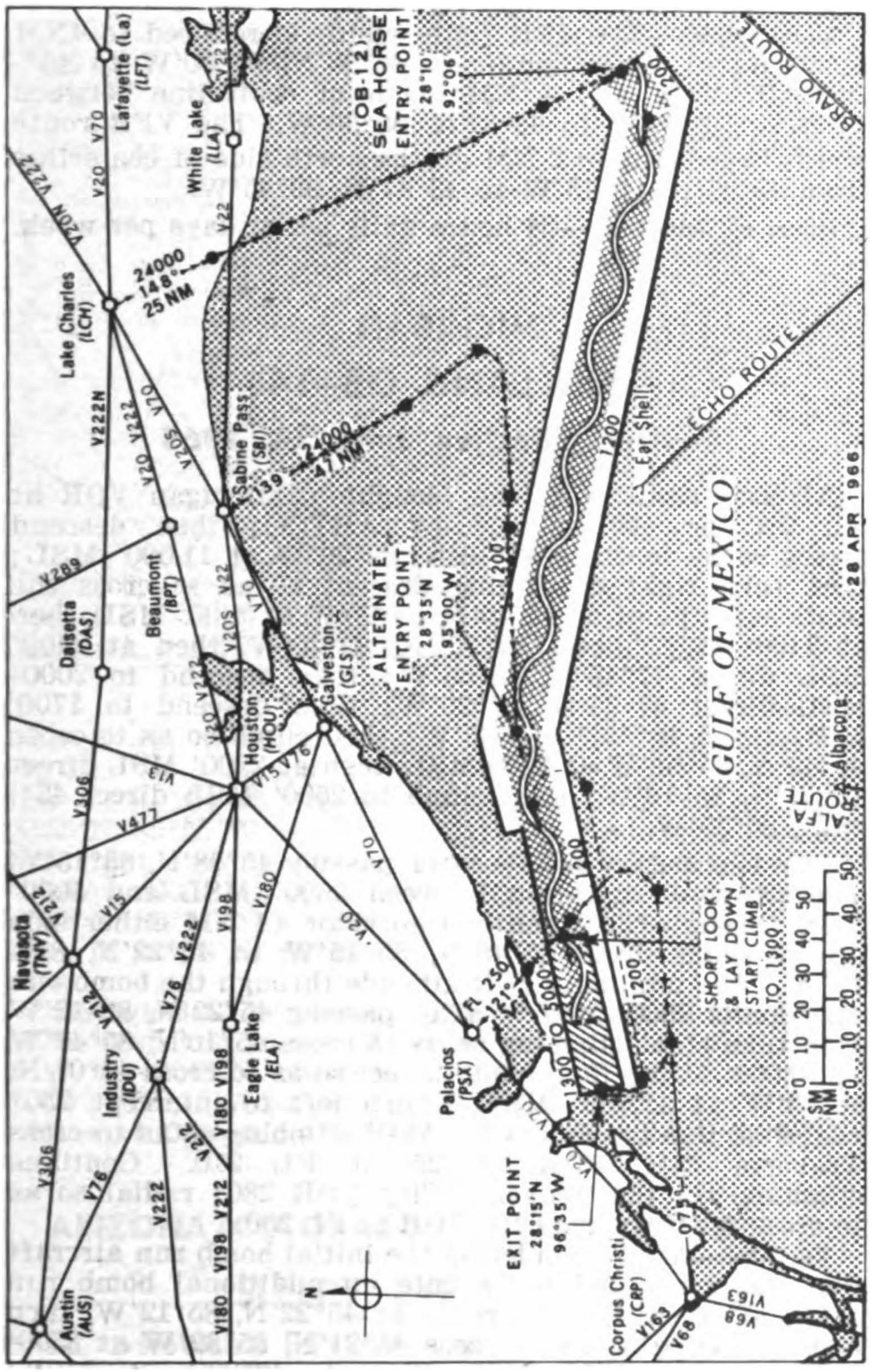
Hours of Operation—24 hours daily, 7 days per week.

TEXAS

SEA HORSE OB–12

Revised Effective February 27, 1966

Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix; start descent, cross 29°31′N, 92°47′W at FL 190, descend direct to cross 28°55′N, 92°28′W at 15,000′ MSL, descend direct to cross 28°28′N, 92°15′W at 9000′ MSL or below, descend direct to cross 28°10′N, 92°06′W at 1200′ MSL (low level entry point). Maintain 1200′ MSL, turn right to 28°03′N, 92°16′W, direct 28°35′N, 95°00′W. direct 28°24′N, 95°53′W.


(OB-12) SEA HORSE ENTRY POINT 28°10′ 92°06′
24000 148° 25 NM
24000 139 47 NM
ALTERNATE ENTRY POINT 28°35′N 95°00′W
EXIT POINT 28°15′N 96°35′W
SHORT LOOK & LAY DOWN START CLIMB TO 1300
1300 TO 5000
FL 250 121°
1200
Ear Shell
BRAVO ROUTE
ECHO ROUTE
ALFA ROUTE
Albacore
GULF OF MEXICO
28 APR 1966
Lafayette (La) (LFT)
White Lake (LLA)
Lake Charles (LCH)
Sabine Pass (SBI)
Beaumont (BPT)
Daisetta (DAS)
Houston (HOU)
Galveston (GLS)
Navasota (TNV)
Industry (IDU)
Eagle Lake (ELA)
Palacios (PSX)
Austin (AUS)
Corpus Christi (CRP)
075
V20 V70 V22 V222N V222 V205 V289 V306 V477 V13 V15 V76 V212 V198 V180 V68 V163
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
N

Short Look and Lay Down—After passing 28°24′N, 95°53′W climb to 1300′ MSL and maintain between 1300′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side of centerline from 28°24′N, 95°53′W direct 28°15′N, 96°35′W). (The minimum IFR altitude through the bomb run corridor is 1300′ MSL) to 28°15′N, 96°35′W, the route exit point, turn left to 28°04′N, 96°30′W, direct to 28°00′N, 96°21′W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03′N, 95°41′W, at or below 17,000′ MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15′N, 96°35′W turn left so as to cross 28°05′N, 96°32′W at 2,000′ MSL; maintain 2000′ MSL direct 28°18′N, 95°15′W, turn left descending so as to intercept the route at 28°31′N, 95°19′W at 1200′ MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the surface between the following points: From 28°10′N, 92°06′W to 28°19′N, 96°16′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the surface.

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02′N, 93°33′W). Start descent direct to cross 28°44′N, 93°19′W at 16,000′ MSL turn right, descend to cross 28°37′N, 93°58′W at 4000′ MSL; descend direct to cross 28°37′N, 94°06′W at 1200′ MSL, direct 28°35′N, 95°00′W, thence via the published route.

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30′N, 95°24′W to 28°15′N, 96°35′W.

Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

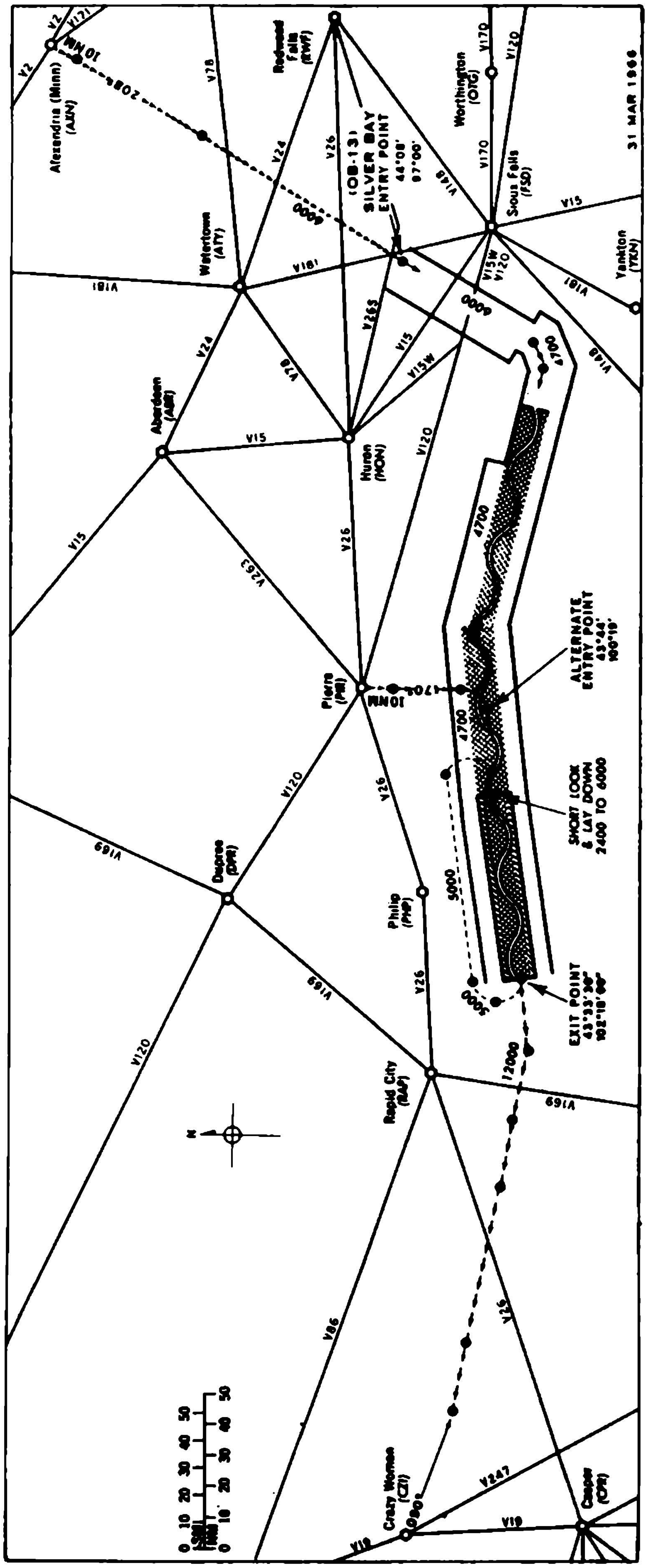
SILVER BAY OB–13

Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10′N, 96°00′W at 6000′ MSL; then at 6000′ MSL direct 44°08′N, 97°00′W (low level entry point); then at 6000′MSL direct 43°27′N, 97°37′W; then turn right descending so as to cross 43°24′N, 97°48′W at 4700′ MSL; then at 4700′ MSL direct 43°47′N, 99°45′W; then at 4700′ MSL direct to 43°42′N, 100°56′W.

Short Look and Lay Down—After passing 43°42′N, 100°56′W, aircraft shall maintain between 2400′ MSL and 6000′ MSL through the bomb run corridor (4 NM either side of centerline from 43°42′N, 100°56′W to 43°33′30″N, 102°18′W). The minimum IFR altitude through the corridor is 4700′ MSL. After exiting the route at 43°33′30″N, 102°18′W aircraft shall climb so as to cross 43°30′N. 102°50′W at 12,000′ MSL; then at 12,000′ MSL direct to 43°34′N, 103°20′W then climb direct so as to cross 43°37′30″N, 103°50′W at FL 180 then climb direct so as to cross 43°46′N, 105°00′W at or below FL 230 then climb direct so as to cross 43°49′N, 105°30′W (CZI 090/42 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33′30″N, 102°18′W turn right and climb or descend so as to cross 43°40′N,


(OB-13) SILVER BAY ENTRY POINT 44°08' 97°00'
ALTERNATE ENTRY POINT 43°44' 100°19'
SHORT LOOK & LAY DOWN 2400 TO 6000
EXIT POINT
31 MAR 1966
Alexandria (Minn) (AXN)
Redwood Falls (RWF)
Worthington (OTG)
Watertown (ATY)
Sioux Falls (FSD)
Yankton (YKN)
Aberdeen (ABR)
Huron (HON)
Pierre (PIR)
Philip (PHP)
Dupree (DPR)
Rapid City (RAP)
Crazy Woman (CZI)
Casper (CPR)
4700
5000
6000
12000
V15
V24
V26
V120
V181A
V169A
V263
V86
V19
V247

102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°50'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30"N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30"N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08'N, 97°00'W to 43°-29'N, 97°35'W and 4 NM north of centerline between 43°29'N, 97°35'W to 43°32'N, 98°30'W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41'N, 99°13'W to 43°47'N, 99°45'W.

Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND OB-14

Revised Effective June 24, 1965

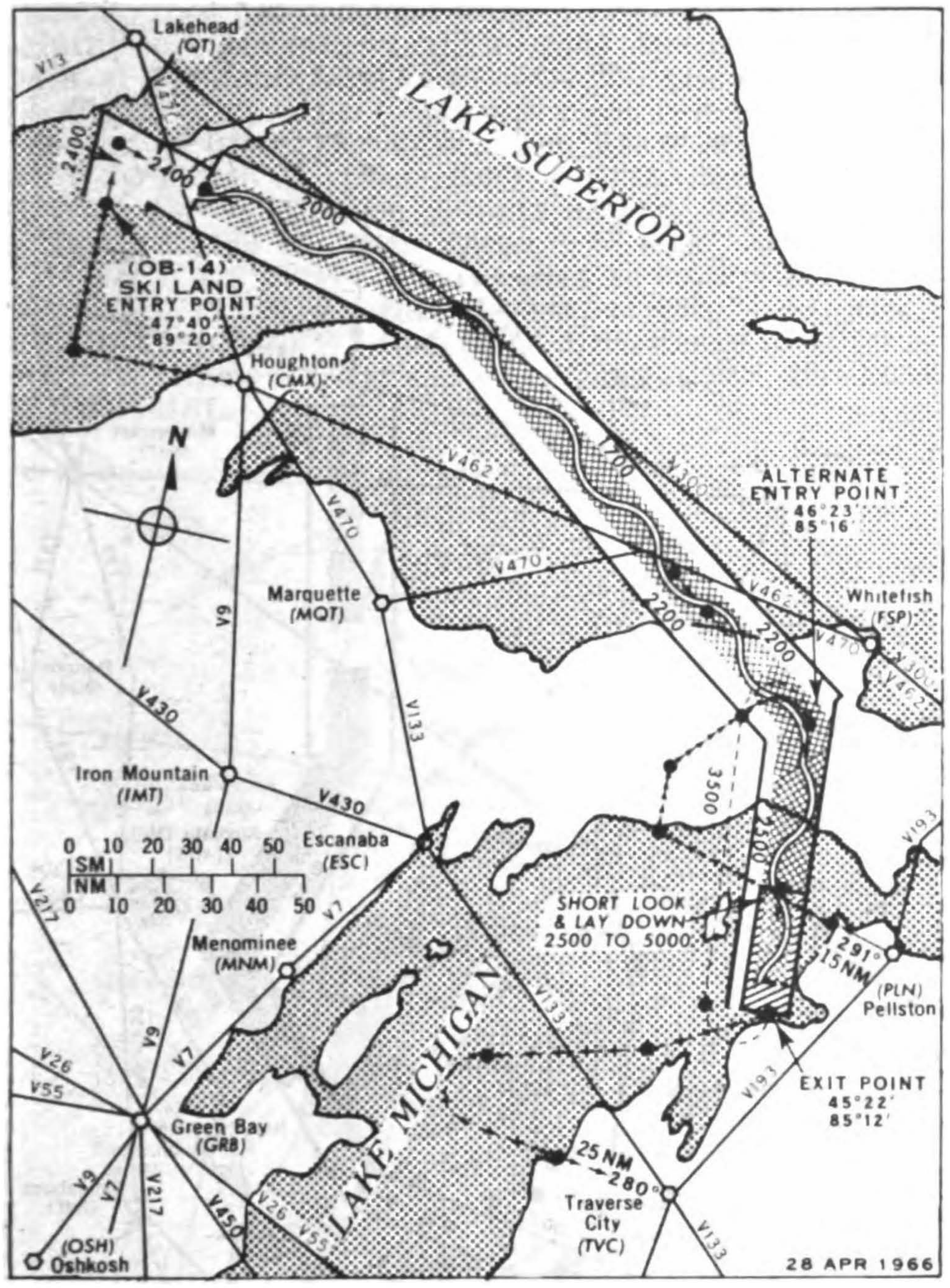
Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52''N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°-48'N, 85°15'W.

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°-12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°-16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then


Lakehead (QT)
LAKE SUPERIOR
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
ALTERNATE ENTRY POINT 46°23' 85°16'
Marquette (MQT)
Whitefish (FSP)
Iron Mountain (IMT)
Escanaba (ESC)
0 10 20 30 40 50 SM NM
Menominee (MNM)
SHORT LOOK & LAY DOWN 2500 TO 5000
291° 15NM
(PLN) Pellston
EXIT POINT 45°22' 85°12'
Green Bay (GRB)
LAKE MICHIGAN
25NM 280°
Traverse City (TVC)
(OSH) Oshkosh
28 APR 1966

proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

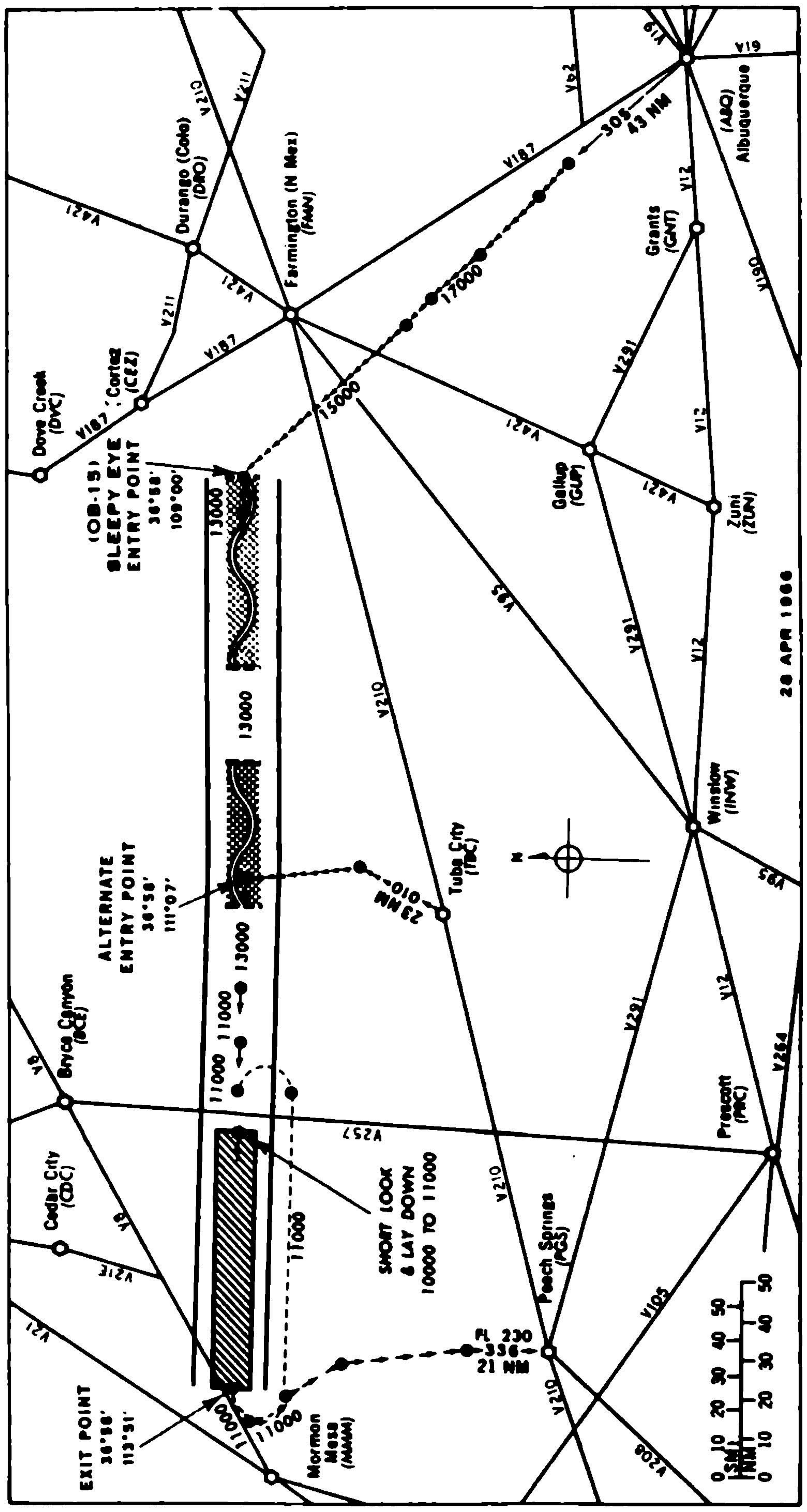
Hours of Operation—0000Z to 2400Z, 7 days a week.

ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE OB–15

Revised Effective January 2, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°57'N, 107°51'W at 17,000' MSL; then maintain 17,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.


Durango (Colo) (DRO)
Farmington (N Mex) (FMN)
305° 43 NM
Albuquerque (ABQ)
Grants (GNT)
17000
15000
Cortez (CEZ)
Dove Creek (DVC)
(OB-15) SLEEPY EYE ENTRY POINT 36°58' 109°00'
13000
Gallup (GUP)
Zuni (ZUN)
28 APR 1966
Winslow (INW)
Tuba City (TBC)
010° 62NM
ALTERNATE ENTRY POINT 36°58' 111°07'
Bryce Canyon (BCE)
11000
Cedar City (CDC)
SHORT LOOK & LAY DOWN 10000 TO 11000
Prescott (PRC)
Peach Springs (PGS)
FL 230 336° 21 NM
EXIT POINT 36°58' 113°51'
Mormon Mesa (MMM)
0 10 20 30 40 50 SM NM

Short Look and Lay Down—After passing 36°58'N, 112°29'W aircraft shall operate between 10,000' and 11,000' MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30"N, 113°32'W).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left

direct to cross 36°58'N, 112°16'W at or below 11,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°58N, 111°16'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07'30"N, 111°16'W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28'N, 111°04'W); then descend direct to cross 36°58'N, 111°07'W at 13,000' MSL; thence via published route.

Hours of Operation—24 hours daily, 7 days a week.

MAINE/NEW HAMPSHIRE/NEW YORK/VERMONT

STOCK FARM OB-38

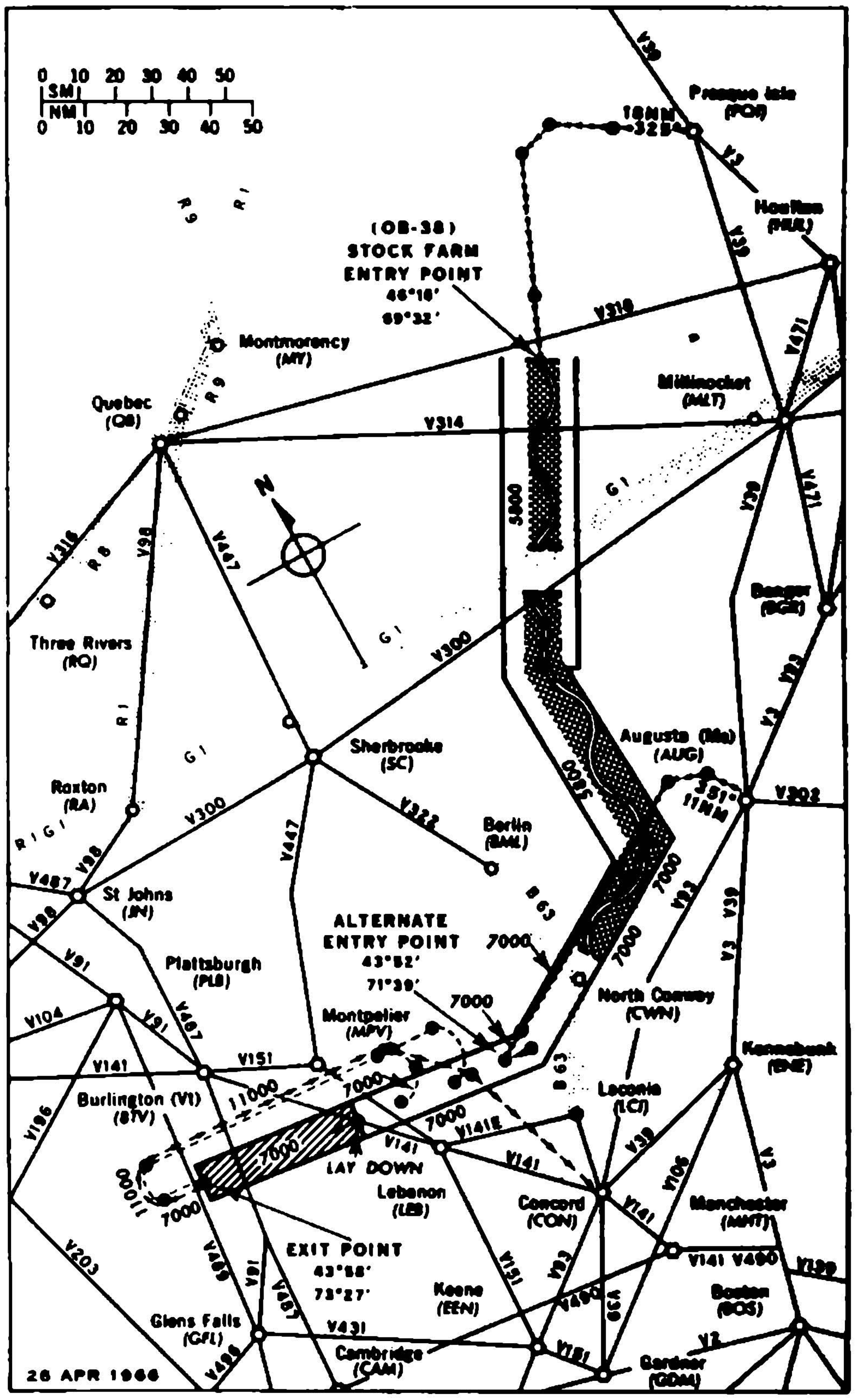
Effective: April 24, 1966 thru September 24, 1966

Aircraft shall cross 46°46'30"N, 68°06'W (Presque Isle, Maine VORTAC) at FL 250, or as assigned by ARTCC, then at FL250, or assigned FL, direct to 46°56'N, 68°28'W (Presque Isle VORTAC 325/18 NM DME fix); descend direct to cross 47°04'N, 68°46'W at or above FL 180; turn left descending to 47°02'N, 69°00'W; continue descent direct to cross 46°30'N, 69°22'30"W at or below 8000' MSL; descend direct to cross 46°16'N, 69°32'W route low level entry point at 5800' MSL; then at 5,800' MSL direct to 45°11'N, 70°24'W; direct 44°22'N, 70°22'W; climb direct so as to cross 44°17'N, 70°33'W at 7,000' MSL; direct 43°51'N, 71°30'W; (reporting point) direct 43°55'N, 72°32'W.

Lay Down—After passing 43°55'N, 72°32'W, aircraft shall operate at 7,000' MSL through the bomb run corridor (4 NM either side of centerline from 43°55'N, 72°32'W to 43°58'N, 73°27'W). After exiting the route at 43°58'N, 73°27'W, aircraft shall maintain 7,000' MSL direct 43°59'N, 73°41'W; (reporting point) turn right; climb to cross 44°09'N, 73°41'W at 11,000' MSL; direct 44°07'N, 72°11'W; climb direct to cross 43°52'N, 71°51'W at or below 14,000' MSL; then climb direct so as to cross 43°13'N, 71°35'W (Concord, N.H. VOR) at FL 230 or as assigned by ARTCC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 43°58'N, 73°27'W, maintain 7,000' MSL direct to 43°59'N, 73°41'W; (reporting point) turn right, climb to cross 44°09'N, 73°41'W at 11,000' MSL; then at 11,000' MSL direct 44°07'N, 71°55'W; turn right, descend to cross 43°53'N, 71°57'W at 7,000' MSL; thence via the published route. The aircraft may after 44°09'N, 73°41'W at 11,000' MSL; proceed direct to 44°07'N, 72°16'W; then turn right and descend so as to cross 44°00'N, 72°07'W at 7,000' MSL; then continue turn at 7,000' MSL; to 43°54'N, 72°16'W thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 46°16'N, 69°32'W to 45°36'30"N, 70°03'30" W and from 45°27'N, 70°11'W to 44°06'N, 70°58'W. VFR operations shall not be conducted during the hours of darkness.


0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
Presque Isle (PQI)
18NM
325°
Houlton (HUL)
(OB-38) STOCK FARM ENTRY POINT 46°16' 69°32'
Montmorency (MY)
Quebec (QB)
Millinocket (MLT)
V318
V314
V39
V3
V471
5800
N
Three Rivers (RQ)
Bangor (BGR)
V300
V316
V98
V467
Augusta (Me) (AUG)
351° 11NM
V302
Sherbrooke (SC)
Roxton (RA)
V322
Berlin (BML)
V447
St Johns (JN)
V487
V91
Plattsburgh (PLB)
ALTERNATE ENTRY POINT 43°52' 71°39'
7000
Montpelier (MPV)
North Conway (CWN)
V104
V141
V151
Kennebunk (ENE)
Burlington (VT) (BTV)
11000
Laconia (LCI)
V141E
V196
LAY DOWN
Lebanon (LEB)
Concord (CON)
V106
Manchester (MHT)
EXIT POINT 43°58' 73°27'
V203
Keene (EEN)
V490
V139
Boston (BOS)
Glens Falls (GFL)
V431
Cambridge (CAM)
V2
Gardner (GDM)
26 APR 1966

Alternate Entry—Aircraft shall cross 44°19'N, 69°47'W (Augusta, Maine VOR) at FL 180 or as assigned by ARTCC; then at FL 180 direct 44°29'N, 69°54'W (Augusta VOR 351° radial 11 NM); then at FL 180 or assigned altitude, turn left to 44°32'N, 70°06'W; descend direct to cross 44°11'N, 70°55'W at 7,000' MSL; direct 43°56'N, 71°30'W; then at 7,000' MSL direct to 43°52'N, 71°39'W; (reporting point) thence via the published route.

Route Width—The route width is reduced to 4 NM on the east side of centerline from 45°11'N, 70°24'W to 44°22'N, 70°22'W and to 4 NM on either side of centerline from 44°22"N, 70°22'W to 43°58'N, 73°27'W. The VFR route width is reduced to 2 NM on the W side of centerline from 46°16'N, 69°32'W to 45°36'30"N, 70°03'30"W.

Hours of Operation—24 hours daily, 7 days per week.

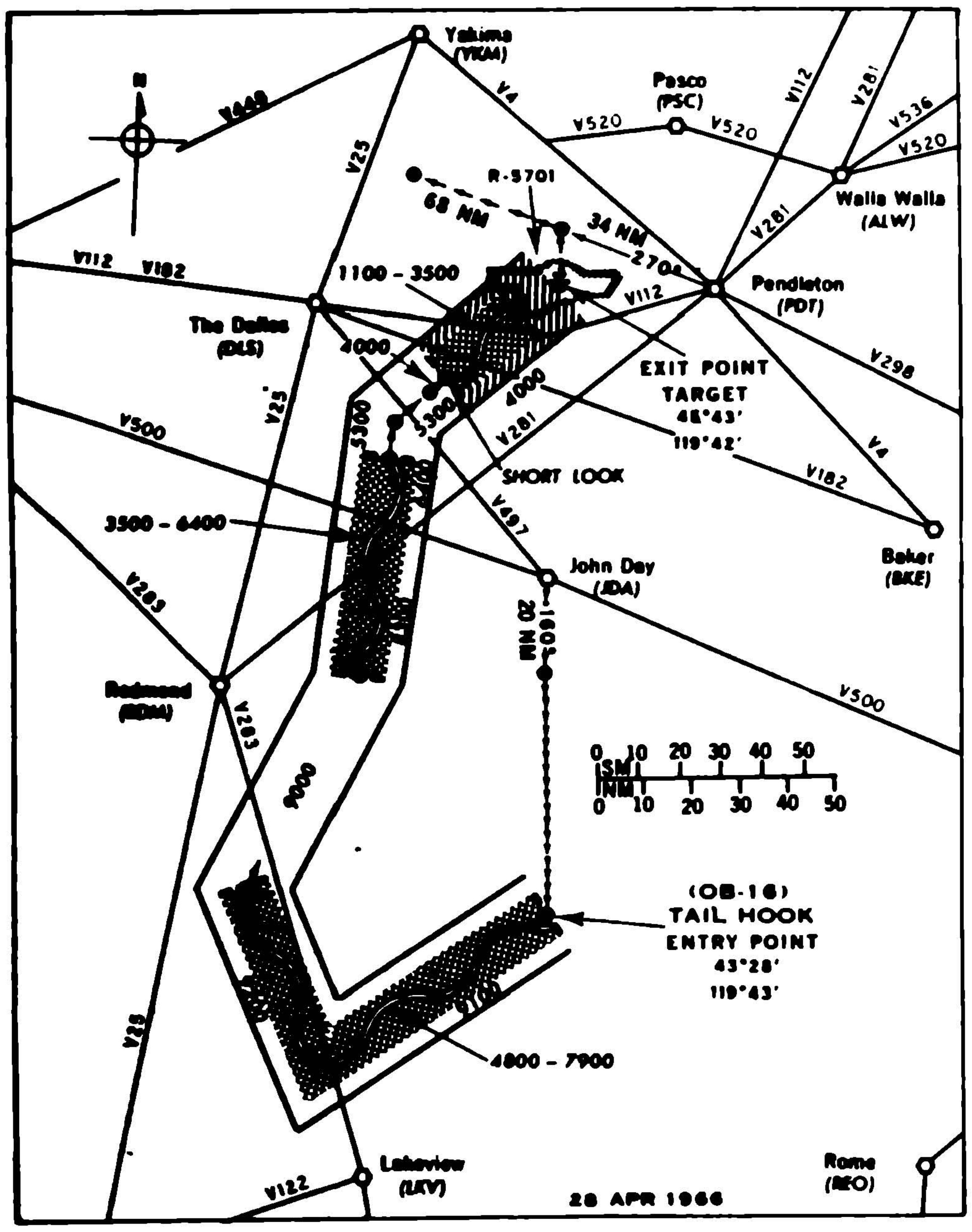
OREGON

TAIL HOOK OB-16

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000' MSL, or as assigned by Seattle

ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19'N, 119°43'W); then descend to 9100' MSL to the entry point of the low level route at 43°28'N, 119°43'W; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.


Yakima (YKM)
N
V468
V4
Pasco (PSC)
V520
V520
V112
V281
V536
V520
Walla Walla (ALW)
R-5701
68 NM
34 NM
270°
Pendleton (PDT)
V112
V182
1100 - 3500
The Dalles (DLS)
4000
V298
V500
V25
5300
3300
4000
V281
EXIT POINT TARGET 45°43' 119°42'
SHORT LOOK
V182
V4
3500 - 6400
V497
John Day (JDA)
Baker (BKE)
20 NM
160°
V268
Redmond (RDM)
V500
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50
9000
V283
(OB-16) TAIL HOOK ENTRY POINT 43°28' 119°43'
4800 - 7900
V25
Lakeview (LKV)
V122
28 APR 1966
Rome (REO)

Short Look—After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R–5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 23,000' MSL.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R–5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

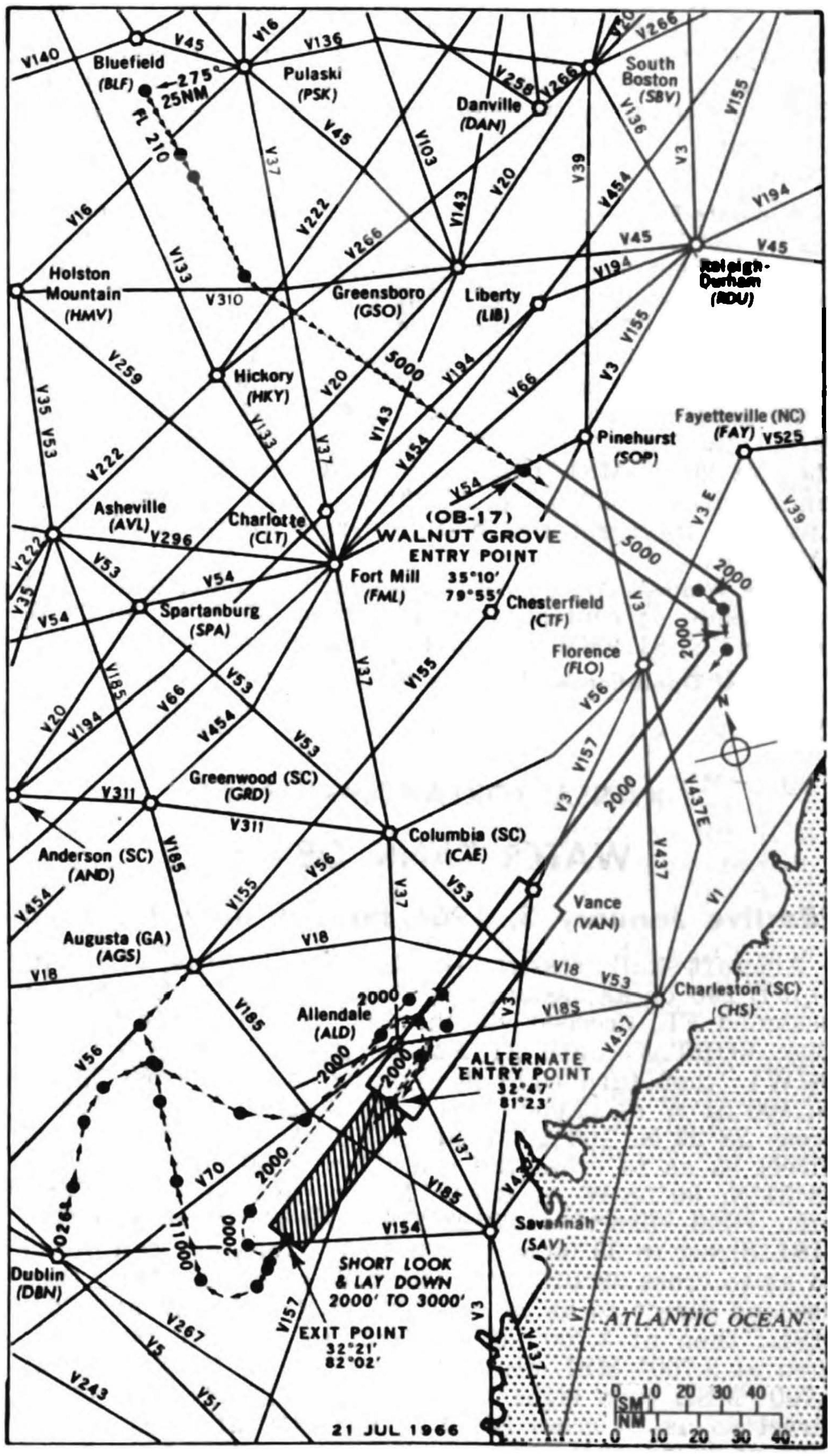
Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE OB–17

Revised Effective January 6, 1966

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°13'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 81°23'W.


V140
Bluefield (BLF)
275° 25NM
FL 210
V45
V16
V136
Pulaski (PSK)
V37
V45
V103
V258
V266
Danville (DAN)
South Boston (SBV)
V136
V155
V3
V39
V20
V143
V454
V194
V16
V222
V266
V133
V45
Raleigh-Durham (RDU)
Holston Mountain (HMV)
V310
Greensboro (GSO)
Liberty (LIB)
V155
5000
V194
V66
V3
Hickory (HKY)
V259
V20
V35
V53
V222
V133
V37
V143
V454
Pinehurst (SOP)
Fayetteville (NC) (FAY)
V525
Asheville (AVL)
V296
Charlotte (CLT)
V54
(OB-17) WALNUT GROVE ENTRY POINT 35°10' 79°55'
Fort Mill (FML)
Chesterfield (CTF)
V3 E
V39
5000
2000
V222
V35
V53
V54
Spartanburg (SPA)
V54
V185
V66
V53
V37
V155
V20
V194
V454
V53
Florence (FLO)
V56
V3
2000
N
V157
2000
V437E
Greenwood (SC) (GRD)
V311
V311
Columbia (SC) (CAE)
Anderson (SC) (AND)
V185
V155
V56
V37
V53
V437
V1
Vance (VAN)
V454
Augusta (GA) (AGS)
V18
V18
V18
V53
Charleston (SC) (CHS)
V185
V56
Allendale (ALD)
2000
2000
2000
ALTERNATE ENTRY POINT 32°47' 81°23'
V185
V437
V3
V37
V70
2000
V185
V264
2000
2000
V154
Savannah (SAV)
Dublin (DBN)
SHORT LOOK & LAY DOWN 2000' TO 3000'
EXIT POINT 32°21' 82°02'
V157
V267
V5
V51
V243
V1
V437
ATLANTIC OCEAN
0 10 20 30 40 SM
NM 0 10 20 30 40
21 JUL 1966

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000'

MSL through the bomb run corridor (4 NM either side of center line from 32°47'N, 81°23'W to 32°21'N, 82°02'W). After exiting the route at 32°21'N, 82°02'W, aircraft shall climb to or maintain 3,000' MSL to 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4,000' MSL; cross 32°12'N, 82°15'W at 6,000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30"W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21'N, 82°02'W, turn right and descend or maintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' MSL continue turn to 32°30'N, 82°11'W; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04'N, 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 81°23'W; thence via the published route. Aircraft may proceed at 2000' MSL from 32°30'N, 82°11'W, direct 33°11'N, 81°09'30"W; turn right to 33°11'N, 80°59'30" W; continue turn to 33°02'N, 81°01'W; thence via published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 026° radial so as to cross 32°47'N, 82°59'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000' MSL; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04', 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26'N, 80°25'W to 32°47'N, 81°23'W the route width is reduced to 6 NM.

Hour of Operation—24 hours daily, 7 days a week.

KANSAS/OKLAHOMA/TEXAS

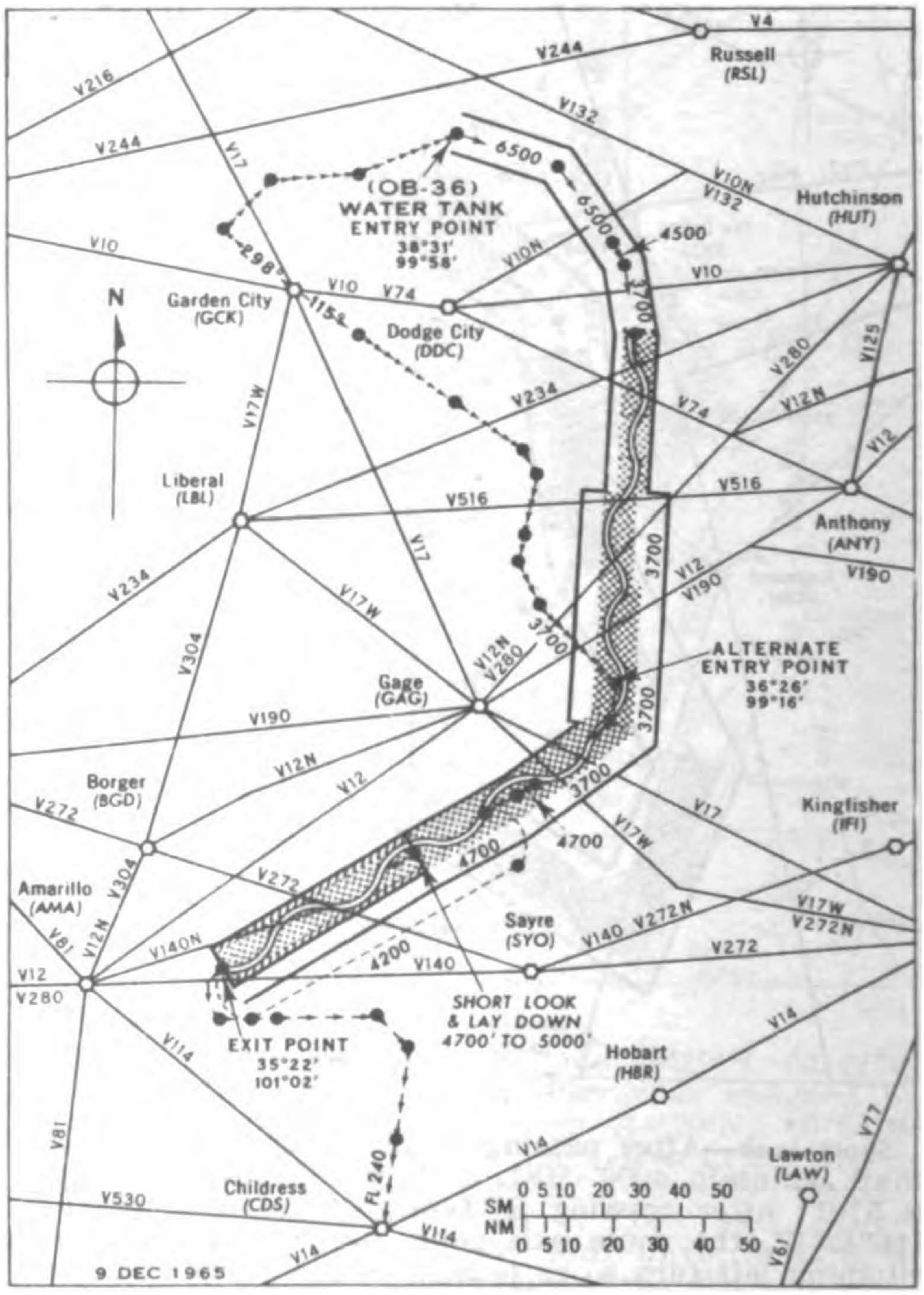
WATER TANK OB-36

Effective January 3, 1966 through July 22, 1966

Aircraft shall cross the Garden City, Kansas, VORTAC at FL 240 or as assigned by ARTC; then at FL 240, or assigned FL, proceed via the 298° radial of the Garden City VORTAC until 21 NM northwest (38°08'N, 101°04'W); then turn right descending so as to cross 38°20'N, 100°51'W at 17,000' MSL; the descend direct so as to cross 38°22'N, 100°26'W at 11,000' MSL; then descend direct so as to cross the route low level entry point at 38°31'N, 99°58'W at 6,500' MSL; then at 6,500' MSL turn right direct to 38°23'N, 99°30'W; then at 6,500' MSL direct to 38°05'30"N, 99°15'W; then descend direct so as to cross 38°01'30"N, 99°12'W at 4,500' MSL; then descend direct so as to cross 37°45'N, 99°09'W at 3,700' MSL; then at 3,700' MSL direct to 36°26'N, 99°16'W; then at 3,700' MSL direct to 36°17'N, 99°17'W; then at 3,700' MSL turn right to 36°03'N, 99°38'W; then climb direct so as to cross 36°01'N, 99°42'W at 4,700' MSL; then at 4,700' MSL direct to the entry point of the bomb run corridor at 35°48'N, 100°10'W.

Short Look and Lay Down—After passing 35°48'N, 100°10'W, aircraft shall operate between 4,700' MSL and 5,000' MSL through the bomb run corridor (4NM either side of centerline from 35°48'N, 100°10'W to 35°22'N, 101°02'W). After exiting the route at 35°22'N, 101°02'W, aircraft shall turn left and maintain or climb so as to cross 35°10'N, 101°03'W at 5,000' MSL; then continue left turn climbing so as to cross 35°10'N, 100°47'W at 8,000' MSL; then climb direct so as to cross 35°11'N, 100°20'W at 16,000' MSL; then turn right climbing so as to cross 35°04'N, 100°11'30"W at FL 200; then climb direct so as to cross 34°43'N, 100°14'30"W at FL 240: then at FL 240 direct to the Childress, Texas VOR.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 35°22'N, 101°02'W, turn left and descend so as to cross 35°10'N, 100°54'W at 4,200' MSL; then at 4,200' MSL direct to 35°45'N, 99°42'W; then turn left climbing so as to cross 35°57'N, 99°51'W at 4,700' MSL; thence via the published route.


V4
Russell (RSL)
V244
V216
V132
V244
V17
6500
(OB-36) WATER TANK ENTRY POINT 38°31' 99°58'
V10N
V132
Hutchinson (HUT)
6500
4500
V10
298°
V10N
V10
V10 V74
N
Garden City (GCK)
115°
Dodge City (DDC)
3700
V280
V125
V17W
V234
V74
V12N
V12
Liberal (LBL)
V516
V516
Anthony (ANY)
V234
V17
3700
V12
V190
V190
V17W
3700
V12N V280
ALTERNATE ENTRY POINT 36°26' 99°16'
V304
Gage (GAG)
3700
V190
V12N
V12
3700
Borger (BGD)
V272
V17
Kingfisher (IFI)
4700
V17W
4700
V272
V304
Amarillo (AMA)
V81
V12N
V140N
4200
V140
Sayre (SYO)
V140 V272N
V17W V272N
V272
V12
V280
SHORT LOOK & LAY DOWN 4700' TO 5000'
V14
EXIT POINT 35°22' 101°02'
V114
Hobart (HBR)
V77
V81
FL 240
V14
Lawton (LAW)
V530
Childress (CDS)
0 5 10 20 30 40 50
SM
NM
0 5 10 20 30 40 50
V114
V14
V61

9 DEC 1965

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitude and 800' above the immediate terrain between the following points: from 37°45'N, 99°09'W to 35°22'N, 101°02'W.

Alternate Entry—Aircraft shall cross the Garden City, Kansas VORTAC at FL 240 or as assigned by ARTC; then descend direct via the 115° radial of the Garden City VORTAC so as to cross 115/17 NM DME Fix (37°45'N, 100°26'W) at FL 220; then descend direct so as to cross 37°29'30"N, 99°59'W at 13,000' MSL; then descend direct so as to cross 37°19'30"N, 99°40'W at 12,000' MSL; then turn right descending so as to cross 37°13'N, 99°37'W at 10,000' MSL; then descend direct so as to cross 37°00'N, 99°40'W at 9,000' MSL; then descend direct so as to cross 36°54'N, 99°42'W at 7,000' MSL;

then turn left descending so as to cross 36°44′N, 99°36′ W at 3,700′ MSL; then at 3,700′ MSL direct 36°26′N, 99°16′W; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline from 38°31′N, 99°58′W to 37°09′ N, 99°12′W and 4 NM on the northwest side of centerline from 36°17′N, 99°17′W to 35°22′N, 101°02′W. The VFR route width is reduced to 2NM on the west side of centerline from 37°45′N, 99°09′W to 37°09′N, 99°12′W and to 2NM on the east side of centerline from 37°09′N, 99°12′W to 36°48′N, 99°13′W.

Hours of Operation—24 hours daily, 7 days per week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB–18

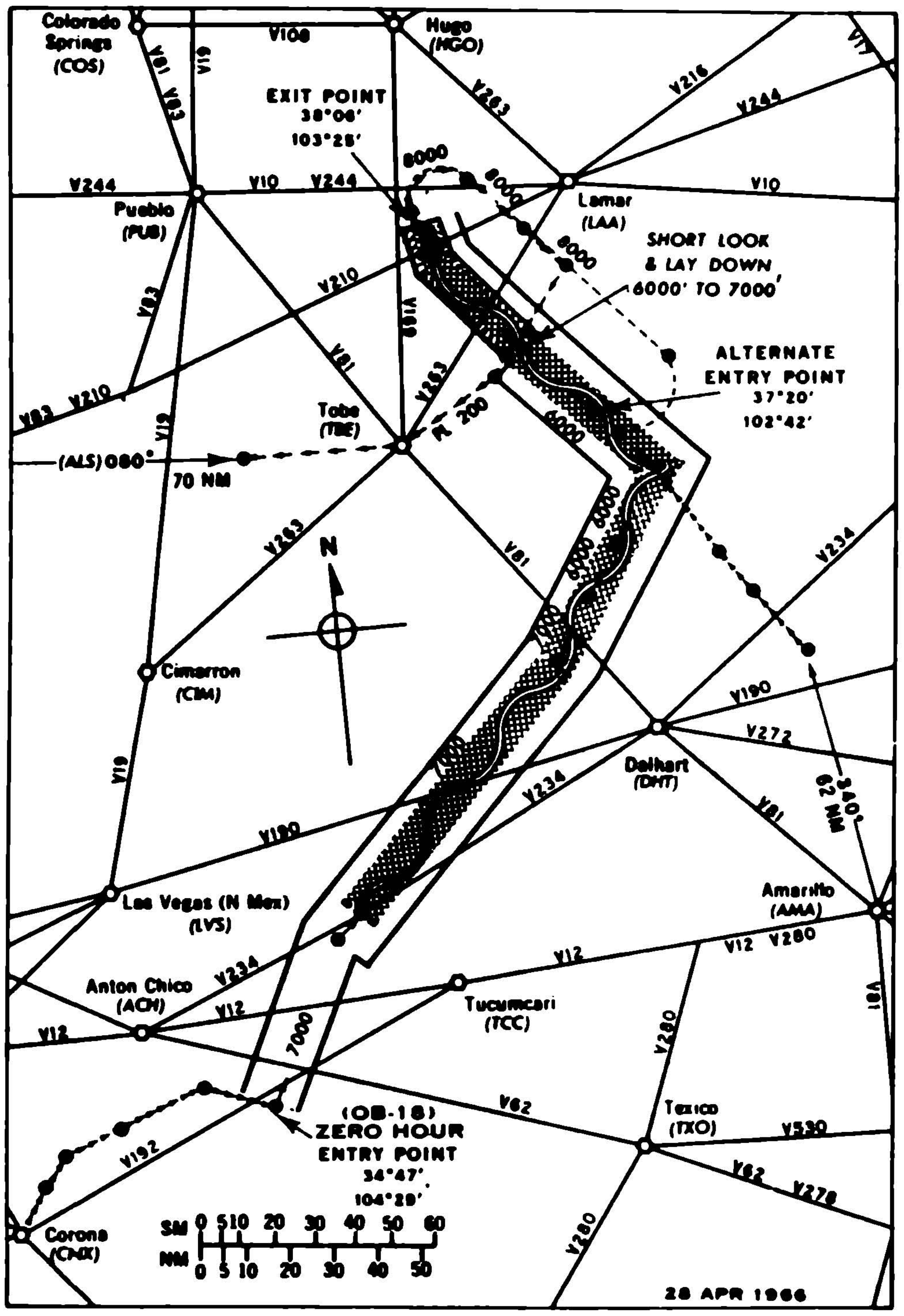
Revised Effective June 19, 1966

Aircraft shall cross 34°22′N, 105°40′30″W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33′ N, 105°33′W at or below FL 230; then descend direct to cross 34°40′N, 105°28′W at FL 220; then descend direct to cross 34°45′N, 105°12′W at or below 17,000′ MSL; then descend direct to cross 34°53′N, 104°48′W at 10,000′ MSL; then descend direct to cross the route entry point at 34°47′N, 104°29′ W at 7000′ MSL, maintain 7000′ MSL direct to 35°24′N, 104°08′W; then 7000′ MSL direct to 36°22′N, 103°00′W; then 7000′ MSL direct to 36°37′N, 102°49′W; then descend direct to cross 36°49′N, 102°40′W at 6000′ MSL; then 6000′ MSL direct to 37°06′N, 102°27′W; then 6000′ MSL direct to 37°36′N, 103°00′W.

Short Look and Lay Down—After passing 37°36′N, 103°00′W, aircraft shall maintain between 6000′ MSL and 7000′ MSL thru the bomb run corridor (4 NM either side of centerline from 37°36′N, 103°00′W to 37°57′N, 103°22′W to 38°06′N, 103°25′W). After exiting the route at 38°06′N, 103°25′W climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, turn right, maintain 8000′ MSL to 38°15′N, 103°10′W, then 8000′ MSL direct to 38°02′N, 102°55′W, then climb direct to cross 37°53′N, 102°45′W at 9000′ MSL, continue climb direct to cross 37°30′N, 103°08′W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16′N, 104°21′W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06′N, 103°25′W, climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, maintain 8000′ MSL right turn to 38°15′N, 103°10′W, then 8000′ MSL direct 37°29′N, 102°18′W; then turn right descending to cross 37°14′N, 102°35′W at 6000′ MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 35°30′N, 104°01′W to 38°06′N, 103°25′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.


Colorado Springs (COS)
Hugo (HGO)
V108
V19
V81
V83
EXIT POINT 38°06′ 103°25′
V263
V216
V244
V17
V244
V10
Pueblo (PUB)
8000
Lamar (LAA)
SHORT LOOK & LAY DOWN 6000′ TO 7000′
V210
V169
ALTERNATE ENTRY POINT 37°20′ 102°42′
Tobe (TBE)
FL 200
6000
(ALS)080°
70 NM
N
V234
Cimarron (CIM)
V190
V272
Delhart (DHT)
340° 62 NM
Amarillo (AMA)
Las Vegas (N Mex) (LVS)
V12
V280
Anton Chico (ACH)
Tucumcari (TCC)
7000
V62
(OB-18) ZERO HOUR ENTRY POINT 34°47′, 104°29′
Texico (TXO)
V530
V278
V192
Corona (CNX)
SM 0 5 10 20 30 40 50 60
NM 0 5 10 20 30 40 50
28 APR 1966

Alternate Entry—Aircraft shall cross 36°19′N, 101°51′W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34′N, 102°03′W at 17,000′ MSL; then descend direct to cross 36°44′N, 102°11′W at 14,000′ MSL; then descend direct to cross 37°06′N, 102°27′W at 11,000′ MSL; then descend direct to cross 37°20′N, 102°42′W at 6000′ MSL; thence via the published route.

Route Width—The route width from 34°47′N, 104°29′W to 35°24′N, 104°08′W is reduced to 4 NM on the east side of centerline, and from 37°36′N, 103°00′W, to 38°06′N, 103°25′W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective July 16, 1966:

Location	Procedure	Action
	AUTOMATIC DIRECTION FINDING	
Eugene, Ore.—Mahlon Sweet Field	No. 1, Amdt. 16	Revised
Ft. Wayne, Ind.—Baer Field	No. 1, Amdt. 11	Revised
Imperial, Neb.—Imperial Muni Arpt	No. 1, Amdt. 2, efctv 13 Mar 65	Cancelled
Newark, N.J.—Newark Arpt	No. 2, Amdt. 7	Revised
Philadelphia, Pa. (Ambler)—Wings Field	No. 1, Amdt. 4	Revised
	VHF OMNIRANGE	
Beaumont, Tex.—Jefferson Co. Arpt	No. 1, Amdt. 7	Revised
Casper, Wyo.—Casper Air Terminal	No. 1, Amdt. 7	Revised
Eau Claire, Wisc.—Eau Claire Muni Arpt	No. 1, Amdt. 12	Revised
Jamestown, N.Y.—Jamestown Muni Arpt	No. 1, Amdt. 3	Revised
Jefferson, Ohio—Ashtabula-Jefferson Arpt	No. 1, Amdt. 2	Revised
Pierre, S.D.—Pierre Muni Arpt	No. 1, Amdt. 9	Revised
	TERMINAL VOR	
Dayton, Ohio—Montgomery Co. Arpt	No. TerVOR R-146, Amdt. 5	Revised
Eugene, Ore.—Mahlon Sweet Field	No. VOR-16, Amdt. 9	Revised
Fort Benning, Ga.—Lawson AAF	No. TerVOR-14, Amdt. 4	Revised
Mc Allen, Tex.—Miller Int'l Arpt	No. TerVOR (R-086), Amdt. 4	Revised
Rochester, N.Y.—Rochester-Monroe Co. Arpt	No. TerVOR-1, Amdt. 10	Revised
Rochester, N.Y.—Rochester-Monroe Co. Arpt	No. TerVOR-4, Amdt. 2	Revised
Rochester, N.Y.—Rochester-Monroe Co. Arpt	No. TerVOR-10, Amdt. 5	Revised
Rochester, N.Y.—Rochester-Monroe Co. Arpt	No. TerVOR-22, Amdt. 3	Revised
	INSTRUMENT LANDING SYSTEM	
Casper, Wyo.—Casper Air Terminal	ILS-7, Amdt. 13	Revised
Eugene, Ore.—Mahlon Sweet Field	ILS-16, Amdt. 18	Revised
Ft. Wayne, Ind.—Baer Field	ILS-31, Amdt. 12	Revised
Newark, N.J.—Newark Arpt	ILS-22, Amdt. 12	Revised
	RADAR	
Detroit, Mich.—Willow Run Arpt	No. 1, Amdt. 13 efctv 3 Jul 65	Cancelled
Washington, D.C.—National Arpt	No. 2, Orig., (River Approach), efctv 20 May 66	Cancellled

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective July 21, 1966:

AUTOMATIC DIRECTION FINDING

Reno, Nev.—Reno Municipal Arpt	No. 1, Amdt. 3	Revised
Reno, Nev.—Reno Municipal Arpt	No. 2, Amdt. 2	Revised

Location	Procedure	Action
VHF OMNIRANGE		
Reno, Nev.—Reno Municipal Arpt	No. 1, Amdt. 15	Revised
INSTRUMENT LANDING SYSTEM		
Reno, Nev.—Reno Municipal Arpt	ILS–16, Amdt. 2	Revised
Reno, Nev.—Reno Municipal Arpt	ILS–34 (Back Course), Orig.	Established
San Diego, Calif.—San Diego Int'l-Lindberg Fld	ILS–9, Amdt. 6	Revised
San Diego, Calif.—San Diego Int'l-Lindberg Fld	ILS–27 (Back Course), Amdt. 6	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective July 30, 1966:

AUTOMATIC DIRECTION FINDING

Location	Procedure	Action
Bradford, Pa.—Bradford-McKean Co. Arpt	No. 1, Amdt. 7	Revised
Denver, Colo.—Stapleton Int'l Arpt	No. 2, Amdt. 3	Revised
Jackson, Mich.—Reynolds Arpt	No. 1, Orig.	Established
Knoxville, Tenn.—McGhee-Tyson Arpt	No. 2, Amdt. 1	Revised
Milwaukee, Wisc.—Gen. Mitchell Field	No. 2, Orig.	Established
Plattsburgh, N.Y.—Municipal Arpt	No. 1, Amdt. 1	Revised

VHF OMNIRANGE

Location	Procedure	Action
Bradford, Pa.—Bradford-McKean Co. Arpt	No. 1, Amdt. 6, efctv 1 Mar 64	Cancelled
Bradford, Pa.—Bradford-McKean Co. Arpt	No. 2, Amdt. 1	Revised
Burlington, Iowa—Burlington Muni Arpt	No. 1, Amdt. 2	Revised
Hoquiam, Wash.—Bowerman Arpt	No. 1, Amdt. 8	Revised
Ottumwa, Iowa—Ottumwa Industrial Arpt	No. 1, Amdt. 7	Revised
Salina, Kansas—Salina Muni Arpt	No. 1, Amdt. 6	Revised
Salina, Kansas—Schilling Arpt	No. 1, Orig.	Established
Saranac Lake, N.Y.—Adirondack Arpt	No. 1, Amdt. 3	Revised

VOR/DME

Location	Procedure	Action
Ft. Smith, Ark.—Municipal Arpt	VOR/DME #2, Orig.	Established
Jackson, Miss.—Allen C. Thompson Field	VOR/DME #2, Amdt. 1	Revised
Ottumwa, Iowa—Ottumwa Industrial Arpt	VOR/DME #1, Amdt. 1 efctv 12 Feb 66	Cancelled
Presque Isle, Me.—Presque Isle Muni Arpt	VOR/DME #2, Amdt. 2	Revised

INSTRUMENT LANDING SYSTEM

Location	Procedure	Action
Denver, Colo.—Stapleton Int'l Arpt	ILS–8R (Back Course), Amdt. 4	Revised
Denver, Colo.—Stapleton Int'l Arpt	ILS–17 (Back Course), Amdt. 4	Revised
Denver, Colo.—Stapleton Int'l Arpt	ILS–35, Amdt. 5	Revised
Youngstown, Ohio—Youngstown Muni Arpt	ILS–32, Amdt. 14	Revised

RADAR

Location	Procedure	Action
Tulsa, Okla.—Riverside Arpt	No. 1, Orig.	Established

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Chart No.	City or Town	VOR	ADF	ILS	RNG
	ALABAMA				
5367	Eufaula (Weedon Field)	6-23-66R18*			
	ALASKA				
1191	Juneau	7-9-66(1)	7-9-66(1)		
1237	King Salmon	7-16-66(1)			7-16-66
1225	McGrath	7-16-66DME(1)			
	ARKANSAS				
902	Hot Springs (Mem. Fld.)	6-25-66R5	6-25-66(1)		
	CALIFORNIA				
36	Bakersfield (Meadows Fld.)	6-25-66(1)	6-25-66(1)	6-25-66R30R 6-25-66R12L(BC)	
67	Burbank (Lockheed Air Term)	6-25-66(1)*	6-25-66(1)	6-25-66R7	
5120	Hawthorne	6-25-66(2)* 6-25-66DME(1)			
693	San Jose	7-9-66R12R 7-9-66R30L		7-9-66R12R(BC) 7-9-66R30L	
	COLORADO				
480	Durango (La Plata Co.)	7-2-66R2* 7-2-66Rad-104			
634	Grand Junction(Walker Fld)		7-2-66(1)	7-2-66R11	
	DISTRICT OF COLUMBIA				
5100	Washington (Dulles Intnl)		7-2-66(1)	7-2-66R1R	
	FLORIDA				
110	Daytona Beach		7-2-66(1)	7-2-66R6	
252	Melbourne (John F. Kennedy Mem.)	7-2-66R9 7-2-66R27	7-2-66(1)		
257	Miami (Intnl)		6-25-66(1) 6-25-66(3)	6-25-66R27L 6-25-66R9L	
	GEORGIA				
26	Atlanta	6-25-66(2)	6-25-66(1)	6-25-66R9L 6-25-66R9L&9R	
146	Fort Benning (Lawson AAF)	7-16-66R2 7-16-66R14 7-16-66R20	7-16-66(1) 7-16-66(2)		
5020	Moultrie (Sunset)	7-2-66R4 7-2-66R22 7-2-66R10			
380	Savannah (Travis) (Chatham)		7-2-66(1)	7-2-66R9	
	HAWAII				
755	Honolulu (Wahiawa) (Wheeler AFB)	6-25-66(1)			
	IDAHO				
57	Boise (Air Terminal)		7-9-66(1)	7-9-66R10L	
	ILLINOIS				
5178	Alton (Civic Memorial)		7-9-66(1) 7-9-66(2)		

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INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		ILLINOIS			
5214	Galesburg	6-18-66R2 6-18-66R20			
5278	Kankakee (Greater)	6-25-66DME(1)	6-25-66(1)		
597	Peoria (Greater Peoria)	6-25-66(1)		6-25-66R12(BC)	
954	Rockford (Greater)	7-2-66(1) 7-2-66DME(1)	7-2-66(1)	7-2-66R36 7-2-66R18(BC)	
5104	West Chicago (Du Page Co.)	7-2-66(1)			
		INDIANA			
156	Fort Wayne (Baer Field)	7-16-66R4 7-16-66R13 7-16-66R9 7-16-66R22	7-16-66(1)	7-16-66R31 7-16-66R13(BC)	
171	Goshen	7-9-66(1)			
711	Kokomo	7-9-66R31 7-9-66R22	7-9-66(1)		
608	Terre Haute(Hulman Fld.)	7-2-66(1) 7-2-66(2)	7-2-66(2)	7-2-66R5 7-2-66R23(BC)	
		KANSAS			
152	Ft. Leavenworth (Sherman AAF)	6-25-66(1)*	6-25-66(1)		
707	Owensboro (Daviess Co.)	6-18-66R5 6-18-66R35			
		KENTUCKY			
239	Louisville (Standiford)		7-9-66(1) 7-9-66(2)	7-9-66R1 7-9-66R29	
		MAINE			
29	Augusta (State)	6-25-66R17 6-25-66R35			
39	Bangor (Dow AFB)			7-9-66R33	
		MARYLAND			
5114	Hagerstown	6-25-66(1)			
		MASSACHUSETTS			
5366	Tewksbury (Tew-Mac)	6-18-66(1)*			
652	Worcester		7-9-66(1)	7-9-66R33	
		MICHIGAN			
41	Battle Creek (Kellogg Regional)	7-2-66R4 7-2-66R22 7-2-66R31	7-2-66(1)	7-2-66R22 7-2-66R4(BC)	
224	Lansing (Capital City)	6-25-66(1)	6-25-66(1)	6-25-66R27 6-25-66R9(BC)	
5052	Pontiac	7-2-66(1) 7-2-66(2)			
5362	Sturgis (Kirsch)		6-25-66(1)*		
5119	Three Rivers (Haines)		7-2-66(1)		

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	MINNESOTA				
5090	Austin	7-9-66R17			
		7-9-66R35			
5236	Eveleth (Virginia)	6-25-66R27			
5041	Rochester (Municipal)	7-9-66(1)	7-9-66(1)	7-9-66R31	
		7-9-66DME(2)		7-9-66R13(BC)	
	MISSOURI				
878	Malden	7-2-66(1)			
360	St. Louis (Lambert-St. Louis)		7-2-66(1)	7-2-66R24	
			7-2-66(3)	7-2-66R12R	
	NEBRASKA				
936	Beatrice	6-25-66R13			
292	North Platte (Lee Bird Field)	7-2-66(1)	7-2-66(1)		
			7-2-66(2)*		
	NEVADA				
662	Las Vegas(McCarran)	7-2-66R25	7-2-66(1)		
		7-2-66Rad-166			
		7-2-66DME(1)			
		7-2-66DME(4)			
423	Tonopah	7-9-66(1)			
	NEW HAMPSHIRE				
95	Concord	6-18-66(1)	6-18-66(1)*		
	NEW JERSEY				
285	Newark		6-18-66(2)	6-18-66R22	
	NEW MEXICO				
12	Albuquerque (Sunport/ Kirtland AFB)		7-9-66(2)	7-9-66R35	
526	Gallup (Sen. Clarke Fld.)	6-25-66(1)*			
	NEW YORK				
673	Glens Falls (Warren Co.)	7-2-66(1)			
		7-2-66DME(1)			
731	Jamestown	7-16-66(1)			
351	Rochester (Monroe Co.)	7-16-66R1			
		7-16-66R10			
		7-16-66R4			
		7-16-66R22			
	NORTH CAROLINA				
78	Charlotte (Douglas)	6-23-66DME(1)			
		6-23-66DME(2)			
		6-23-66DME(3)			
		6-23-66DME(4)			
5069	Fort Bragg (Simmons AAF)	7-9-66R27	7-9-66(1)		
178	Greensboro (High Pt.-Winston Salem)	6-25-66(1)	6-25-66(1)	6-25-66R14	
		6-25-66DME(1)		6-25-66R32(BC)	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	NORTH DAKOTA				
51	Bismarck	7-2-66(1)	7-2-66(1) 7-2-66(2)	7-2-66R30	
	OHIO				
201	Chesapeake (Huntington Downtown)		6-25-66(1)		
83	Cincinnati (Mun-Lunken Fld)		7-9-66(1)*	7-9-66R20L	
5027	Cleveland (Cuyahoga Co.)		7-2-66(1)		
84	Cleveland (Hopkins Intnl)	7-2-66(1)	7-2-66(1) 7-2-66(2)	7-2-66R5R 7-2-66R23L(BC) 7-2-66R27	
5042	Dayton (Montgomery Co.)	7-9-66R20 7-9-66Rad-146			
5110	Jefferson (Ashtabula-Jefferson)	7-16-66(1)			
466	Youngstown	7-9-66(1)		7-9-66R14(BC)	
	OREGON				
140	Eugene (Mahlon Sweet)	7-16-66R16	7-16-66(1)	7-16-66R16	
	PENNSYLVANIA				
926	Bradford (McKean Co.)	6-25-66(2) 6-25-66DME(1)*			
5169	Philadelphia (Ambler), (Wings Fld.)		7-16-66(1)		
	SOUTH CAROLINA				
89	Columbia (Metropolitan)	7-9-66(1)	7-16-66(1)	7-16-66R10	
183	Greenwood (County)	7-2-66R9 7-2-66R27			
	SOUTH DAKOTA				
324	Pierre	7-16-66(1)			
877	Rapid City	6-23-66(1) 6-23-66DME(1)			
	TEXAS				
521	Beaumont (Jefferson Co.)	7-16-66(1)	7-9-66(1)	7-16-66R29(BC) 7-9-66R11	
82	Childress	7-9-66(1)			
5238	Fort Worth (Oak Grove)	6-25-66(1)			
198	Houston(Wm. P. Hobby)	7-2-66DME(2) 7-2-66DME(3)			
870	Lufkin (Angelina Co.)	6-25-66(1)			
985	McAllen (Miller Intnl)	7-16-66R13 7-16-66Rad-086			
876	Plainview (Hale Co.)	6-25-66(1)			
369	San Antonio (Intnl)	7-9-66(1)	6-25-66(3)	6-25-66R12 7-9-66R21(BC)	
5274	Sinton	7-9-66(1)*			

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		UTAH			
297	Ogden	6-25-66(1) 6-25-66DME(1)			
365	Salt Lake City (Mun. No. 1)	6-18-66(1) 6-18-66DME(1) 6-18-66DME(2) 6-18-66DME(3)	6-18-66(1)	6-18-66R34L 6-18-66R16R(BC)	
		VIRGINIA			
765	Charlottesville (Albemarle)		7-2-66(1)	7-2-66R3	
499	Lynchburg (Preston Glenn)	7-2-66(1) 7-2-66DME(1)	7-2-66(1)	7-2-66R3	
		WASHINGTON			
5107	Bremerton(Kitsap Co.)		7-9-66		
413	Fort Lewis (Gray AAF)		7-9-66(1)		
889	Hoquiam (Bowerman)	6-23-66(1)			
645	Olympia	7-9-66R17 7-9-66DME(1) 7-9-66DME(2)			
384	Seattle (King Co. Boeing)		7-9-66(1) 7-9-66(2)	7-9-66R13	
5186	Tacoma (Industrial)		7-9-66(1) 7-9-66(2)		
		WEST VIRGINIA			
532	Huntington (Tri-State) (Walker Long Fld)		7-2-66(1) 7-2-66(2)	7-2-66R11 7-2-66R29(BC)	
650	Wheeling (Ohio County)	7-9-66(1)		7-9-66R3	
		WISCONSIN			
937	Eau Claire	7-16-66(1)			
5368	Marshfield		6-23-66(1)*		
		WYOMING			
72	Casper (Air Terminal)	7-16-66(1)	7-16-66(1)	7-16-66R7 7-16-66R25(BC)	
388	Sheridan (County)	7-9-66(1) 7-9-66DME(1) 7-9-66DME(2)			
		RADAR			
Radar	Pages 1-18	6-25-66			

*NEW CHART

AIRMAN'S
INFORMATION
MANUAL

FEDERAL AVIATION AGENCY

PART 3A

EFFECTIVE 0501Z 21 JULY 1966

To 0501Z 4 AUGUST 1966

NOTICES
TO
AIRMEN

Part 3–A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necessarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and lndgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

BIRMINGHAM RDO: DME will be shut odwn July 18 til aprxly July 23.

BRANTLEY MUNI ARPT: Clsd UFN.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft. (12–23)

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd until aprxly July 1966. VFR acft ctc Craig Twr on 126.2 for tfc and lndg advisories.

ARIZONA

COOLIDGE-FLORENCE MUNI ARPT: Rnwys 5–23 and 17–35 clsd UFN due repairs.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PHOENIX, SKY HARBOR MUNI ARPT: 1200′ additional rnwy avail dalgt hrs E end of rnwy 8R–26L at pilot's discretion, due engr test.

TUCSON RDO: VHF/DF unusable beyond 40 NM below 13,500′ MSL 345–070°, below 12,500′ MSL 070–090° acct reduced coverage.

ARKANSAS

FLIPPIN ARPT: Clsd UFN due constr. (6–9)

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BLUE CANYON ARPT: Clsd UFN.

IMPERIAL RDO: DME shutdown until aprxly July 29.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline until aprxly July 1966.

PLACERVILLE ARPT: Rnwys 5–23 clsd until aprxly Aug 13, 1966. (2–17)

SALINAS RDO: DME portion of VORTAC will be shutdown until aprxly July 29 for mod.

SAN CARLOS ARPT: Extensive constrn txwy and rnwys til aprxly Sept 30. Flt operns dalgt hrs only. Lgts and bcn inop UFN. Lmtd parking for transients.

SAN DIEGO INTL-LINDBERGH FLD: Rnwy 13–31 clsd til aprxly Aug 1. (6–9)

SAN FRANCISCO INTL ARPT: Rnwy 10R–28L clsd til aprxly Aug 23. (6–9)

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

SAUSALITO RDO: Aug 1, DME will be shutdown until aprxly August 12 for maintenance.

TWENTYNINE PALMS ARPT: Rnwy lgts inop. (3–17)

COLORADO

COLORADO: ILS LMMs decmsnd July 21 at flwg arpts: Colorado Springs, Peterson Fld, Denver, Stapleton Intl. Rnwys 35 and 26L Pueblo Meml.

CORTEZ, CORTEZ–MONTEZUMA COUNTY ARPT: Clsd UFN due constr.

DENVER, STAPLETON INTL ARPT TWR: Glide slope rnwy 35 shutdown for mod Aug 8 until aprxly Nov 10.

DENVER, STAPLETON INTL ARPT: Aug 15, apch lgts rnwy 35 inop until aprxly Oct 4.

MEEKER RDO: VORTAC shut down til aprxly July 21 for freq change to 115.2 mc. Class will be H-BVORTAC.

TRINDAD RDO: VHF/DF unusable beyond 40 nmi below 8000′ MSL 280–120°, 9000′ MSL 120–135°, 15,000′ MSL 135–175°, 17,500′ MSL 175–220°, 14,500′ 220–280° acct reduced coverage. (2–17)

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large acft including jets, also clsd for ngt operns.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P-56. See Washington, D.C. chart under Special Notices-Area in Part 3 for location.

WASHINGTON NATL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying VIP or officers above rank of Major General or Rear Admiral (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C-140) (2) Sabreliner (T-39) (3) Morane Sauliner 760 (4) Jet Commander (Aero Commander) (4) Learjet Model 23 (Lear Jet Co.) (6) Hawker Siddley DH-125 (7) Fan Jet Falcon (8) Caravelle (9) DC-9 (10) BAC-111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. No Turbojet acft described in paragraph B (8) through (11) may not be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda. Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: HAITI, private acft landing or overflying Haiti must furnish 48 hours advance notice and a flight plan must be filed. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

JACKSONVILLE RDO: DME portion will be shutdown July 18 til aprxly July 23 for replacement of antenna.

LAKELAND MUNI ARPT: Rnwy 4-22 clsd UFN. (6-9)

LAKE WALES, CHALET SUZANNE AIR STRIP: Clsd til late Aug.

MIAMI: Due to the lack of adequate inter center communications btn the Miami Center and adjacent CTA/FIR's and a continued increase in IFR and DVFR traffic btn points in Central America/Caribbean area and Florida, pilots on DVFR flights are advised to report to Key West FSS, Miami International FSS, Nassau Radio or Miami Aeronautical Radio Inc (ARINC) prior to penetrating the Gulf of Mexico Atlantic Coastal ADIZ: Pilots on IFR flights are advised to report to Miami Center, Miami International FSS Miami Aeronautical Radio Inc (ARINC), Key West FSS or Nassau Radio prior to entering the Miami FIR. Miami Center frequencies are: East of 79° West, 125.7/307.9; West of 79° are: 120.3/118.9/319.1, 124.4/281.4, 132.7/306.9, 127.7/362.3. Adherence to this procedure enhances identification and minimizes the possibility of being intercepted.

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

OCALA RDO: Aug 2, VOR will be shutdown until aprxly Aug 4.

SANFORD NAS RDO: Rbn inop UFN.

TAMPA FSS: Sept 1, FSS will be relctd to St. Petersburg. Name to change to St. Petersburg and ident to be "PIE". All freqs and services will remain the same.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtd 80′ boom pile driver operg 1200′ N apch end rnwy 27 until aprxly Dec 1, 1966. Lgtg constr in progress adj rnwy 9-27 and SE end rnwy 13-31 until aprxly Nov 1966.

WEST PALM BEACH, PALM BEACH COUNTY PARK ARPT: Rnwy 9-27 and adjacent apron areas under constr until aprxly Nov.

GEORGIA

ALMA, BACON COUNTY ARPT: Clsd to all operns until aprxly Oct 1 due constr. (6-9)

✓BRUNSWICK, JEKYLL FLIGHT STRIP: Arpt name changed to Jekyll Island Arpt.

COLUMBUS MUNI ARPT: Rnwy 16-34 clsd and rnwy 11-29 decreased to 3500′ due constr til aprxly Nov 15.

MACON MUNI ARPT TWR: Effective July 24, hrs of opern will be 0700-2300 lcl time. Arpt advisory service will be avbl 2300-0700 lcl time from FSS on freq 122.2.

IDAHO

POCATELLO MUNI ARPT: Rnwy 16-34 lgts inop UFN.

ILLINOIS

CHICAGO-HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-O'HARE INTL TWR: MM component ILS rnwy 14L shutdown until aprxly Sept 15 for rnwy constr. ILS lclzr rnwy 32R ident: IDN and glide slope rnwy 14L will be shutdown until aprxly Nov 15 for relctn.

CHICAGO-O'HARE INTL ARPT: Apch lgts inop rnwy 14L. Constr on NW end of rnwy 14L-32R in progress until aprxly Oct 10.

INDIANA

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope rnwy 21 shutdown until Sept due rnwy constr.

IOWA

DES MOINES MUNI ARPT: Apch lgts and sequence flashers will be shutdown during daylgt hrs week days.

ROCK RAPIDS MUNI ARPT: Clsd due constr until aprxly Aug 1. (6–9)

WATERLOO MUNI ARPT TWR: ILS serving rnwy 12 shutdown UFN for relctn of lclzr.

WATERLOO MUNI ARPT: Due constr 600′ SE end of rnwy 12–30 clsd UFN, usable length of rnwy 4800′ threshold lgts will be displaced 600′.

KANSAS

GOODLAND RENNER FLD (MUNI): Rnwy 8–26 and 1000′ extension to SE end rnwy 13–31 clsd Aug 1.

OLATHE CITY ARPT: NW/SE rnwy clsd for repairs UFN.

KENTUCKY

LEXINGTON, BLUE GRASS FLD TWR: ILS glide slope and lclzr serving rnwy 4 will be shutdown intermittently on day-by-day basis from aprxly July 15 UFN due to rnwy constr.

LEXINGTON, BLUE GRASS FLD: Rnwy 4–22 will be clsd nightly 2300–0700 EST until aprxly Aug 15,for overlay rnwy. Rnwys 15–33 and 8–26 clsd periodically during constr for paving intersections.

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope (rnwy 29) shut down UFN due rnwy constrn. Lclzr will be shut down intermittently on day by day basis.

LOUISIANA

GRAND ISLE RDO: July 25, H facility will be shutdown until aprxly Aug 19 for replacement of cables and modulator.

NEW ORLEANS LAKE FRONT ARPT: Mound of sand N end of rnwy 35, 1200′ long 800′ wide. 175′ boom will be operg in area of apch end rnwy 4 aprxly 300′ W of rnwy 4 aprxly July 15. Rnwy 4–22 clsd except for tkof to NE. Rnwy 31 threshold displaced 637′ N. Rnwy length between threshold reduced to 3163′. Sandbar extends into Lake Pontchartrain aprxly 100′ N of apch end of seaplane ramp. Use extreme caution apchg ramp. (6–9)

NEW ORLEANS INTL ARPT (MOISANT FLD): Caution lndg rnwy 1, apch end aprxly 18 inches lower than rnwy level, rnwy length reduced to 6850′, 125′ drag line W of rnwy, until aprxly Aug 15.

MAINE

MILLINOCKET MUNI ARPT: Acft using rnwys 16–34 and 11–29 not visible to each othr until apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4–22 and 15–33 not visible to each other until apchg intersection.

WATERVILLE, LAFLEUR ARPT: Rnwy 5 under constr being extended on SW end.

MARYLAND

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200′.

TOWSON: 10′ balloon ascending 1000′ per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BEDFORD, LAURENCE G. HANSCOM FLD: Moored balloon 5 NM SW of fld, 3000′ AGL hoisted hourly during VFR conditions dalgt hrs til Sept 20. Cable marked with small balloons.

ORANGE MUNI ARPT: Summer operns in efct Apr 1–Dec 15. Use paved areas only. All rnwys open.

MICHIGAN

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900′ smoke stack 3 mi NW.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58′00″N long 83°47′30″W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

FLINT, BISHOP ARPT: Until Aug 31, resurfacing of rnwys in progress. (6–9)

LAKE MARGRETHE: Restricted area R–4202 will be effective and July 9–Aug 6, 1966.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000′ AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000′ AGL.

OWOSSO CITY ARPT: Obstn lgts inop on 210′ twr lctd 5 mi SE.

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500–1630 CST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)

MINNESOTA

DULUTH INTL ARPT: VASI being installed rnwy 9 and rnwy lgts both sides of rnwy 9–27 work in progress until aprxly Aug 1. (6–9)

DULUTH INTL ARPT: Radar portion apch and dptr ctl shutdown for maintenance.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

MINNEAPOLIS ARTCC: Radar weather advisory service is available in positive control area within the Minneapolis Center area except E of 91° 0′ long. Limited radar service for tfc ctl problem solving is available in the Minneapolis positive control area W of a line from Fargo, N.D. to Sioux Falls, S.D. Mon-Fri from 1000 CST to 2200 CST.

MINNEAPOLIS, ANOKA COUNTY JANES FLD: E end of E/W rnwy under constr until aprxly July 15. (6–9)

NISSWA, HEYWOOD GULL LAKE ARPT: Clsd UFN.

✓ROCHESTER MUNI ARPT: Rnwy 2–29 clsd to acft over 50,000 lbs GWT unless cross wind component rnwy 13–31 exceeds 25 knots.

MISSISSIPPI

CROSBY MUNI ARPT: Rotating bcn inop UFN.

HATTIESBURG MUNI ARPT: Rnwys 13–31 and 8–26 clsd until Sept 1966.

MONTANA

BILLINGS, LOGAN ARPT: N one half of rnwy 4–22 clsd UFN due constr.

BUTTE, SILVER BOW COUNTY ARPT: Rnwy lgts rnwy 2–20 inop until aprxly July 1966. (2–17)

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

MISSOULA COUNTY ARPT: Rnwy 7–25 E 2534′ clsd.

NEBRASKA

COLUMBUS MUNI ARPT: Constr on 1000′ extension to NW end rnwy 14–32, NW 400′ of present rnwy tmprly clsd, usable length avbl 3600′.

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56′50″N, long 98°31′15″W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000′ AGL Mon-Fri 1400–2230Z until further notice.

NEVADA

LOVELOCK, DERBY FLD: One or two moored balloons 12′ in diameter in enshrouding parachute will be operating about 17 nmi W from 8AM to 9PM local standard time until March 31, 1967. Surface to 6700′ MSL or 2500′ above test site. Balloons equipped with red flashing lights at ngts.

LOVELOCK RDO: DME will be shut down July 13 til aprxly July 22.

WELLS, HARRIET FLD: Rotating bcn inop UFN.

NEW HAMPSHIRE

LANCASTER, GRABOR ARPT: Clsd UFN—constrn.

NEW JERSEY

ATLANTIC CITY, BADER ARPT: Banner towing operns 1000-dusk til Nov 1.

ATLANTIC CITY, NAFEC/ATLANTIC CITY (POMONA) ARPT: VASI lgts operg intermittently rnwy 13 Not authorized for civil use.

LAKEWOOD ARPT: Avoid area of chicken farm lctd on 240° mag brg 6000′ from rnwy.

MORRISTOWN MUNI ARPT: Rnwy 5–23 clsd SS-SR except departing pure jets UFN. (8–17)

OCEAN CITY MUNI ARPT: Open daigt operns only. No refueling or other services available due constr UFN.

READINGTON, SOLBERG–HUNTERDON ARPT: Rnwys 1–28, 13–31, 14–32 and all grass areas closed.

NEW MEXICO

ALBUQUERQUE RDO: Aug 1 thru Aug 4, VOR will be shut down.

CARLSBAD: An abandoned arpt lctd adj to VOR bldg; strip dangerous—should not be used.

RUIDOSO MUNI ARPT: 700′ hills to the N. Tkofs and Go around hazardous on rnwy 36. All tkofs S regardless of wind.

NEW YORK

BUFFALO, GREATER BUFFALO INTL ARPT: Threshold clsd first 500′ rnwy 5 to lndgs only 1200–2130 Mon, Wed, Fri til aprxly Aug 30.

HORNELL MUNI ARPT: Maintain 2500′ MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

NEW YORK, LAGUARDIA RDO: MHW to be comsnd in lieu of LOM. Freq 233 kc.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constrn N end rnwy.

NEW YORK, LA GUARDIA ARPT: Rnwy 13 VASI inop UFN.

NEW YORK, LA GUARDIA ARPT: Due to constrn rnwy 13 lndg and take off length 5971′. Rnwy 31 tkof length 5971′ with displaced threshold 173′ NW, rnwy 31 lndg length 5813′. Rnwy 4–22 usable length 7000′. Rnwy 4 lndgs and rnwy 22 departures clsd to all turbojet acft operns.

NIAGARA FALLS MUNI ARPT: Constrn W end ramp til aprxly Aug 1.

NORWICH, EATON ARPT: Clsd July 1 til aprxly Sept 1 due constrn N/S rnwy.

WARWICK ARPT: Rnwy 3–21 clsd til aprxly July 15 for resurfacing. Rnwy 8–26 usable length 1300′ as mrkd.

NORTH CAROLINA

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500′ pattern from the west.

NORTH DAKOTA

MINOT, FLYING RANCH ARPT: Lgtg facils inop.

NEWTOWN ARPT: New arpt clsd; under constr.

WASHBURN MUNI ARPT: All lgtg facils inop.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constrn SE end rnwy 5 until fall 1966.

DAYTON, COX DAYTON MUNI ARPT: Constrn extending N end rnwy 18-36 in progress for aprxly one year. Rnwy will be clsd intermittently.

ST. CLAIRSVILLE, ALDERMAN FLD: Rotating bcn inop.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400-2300 UFN.

OKLAHOMA

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: Rnwy 17L-35R clsd all operns. (3-17)

OREGON

NORTH BEND ARPT: About 12 nmi NNE a moored aluminum colored V shaped balloon 75' long, approximately 40' diameter being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

ONTARIO MUNI ARPT: Rnwy 6-24 clsd UFN.

PENNSYLVANIA

ALTOONA RDO: Aug 18, VORTAC will be shut down til aprxly Aug 28—major repairs.

BUTLER, GRAHAM FLD: Extensive glider operns wkends and occasionally during week. Operns will take place off to side of rnwy UFN.

CONNELLSVILLE ARPT: July 22, 23, 24, rnwy 14-32 and rnwy 9-27 clsd due sports car races. Rnwy 5-23 open all times. Ctc UNICOM for tfc advisory.

CONNELLSVILLE ARPT: No fuel UFN. Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

ERIE, PORT ERIE ARPT TWR: ILS glide slope and MM wil be shut down July 19 til aprxly July 29 for major repairs.

MONOGAHELA, THOMPSON MEML ARPT: Clsd until aprxly Sept. 1966 due constr.

MT. POCONO ARPT: First 200' rnwy 13-31 unusable due rnwy mrkg.

PITTSBURGH, GREATER PITTSBURGH ARPT: First 500' rnwy 10R clsd due constrn til aprxly Oct 15.

PITTSBURGH, GREATER PITTSBURGH ARPT TWR: ILS rnwy 28L shut down til aprxly July 20 due construction arpt.

PUNXSUTAWNEY MUNI ARPT: E/W rnwy clsd for construction til aprxly June.

TITUSVILLE ARPT: Clsd due constrn UFN.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000' from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.-Thornhurst-Wilkes-Barre.

YORK ARPT: Auto racing rnwy 16-34 Sats 1500-2400 lcl time til Sept 24. Unicom ctc required to clear rnwy.

SOUTH CAROLINA

MONCKS CORNER MUNI ARPT: Clsd due constrn UFN.

SOUTH DAKOTA

BRITTON MUNI ARPT: Arpt clsd for rnwy constrn until aprxly Aug 1.

HURON, HOWES MUNI ARPT: N/S rnwy clsd due constrn til aprxly Sept. 1.

REDFIELD INC ARPT: Clsd for constrn til aprxly July 24.

WATERTOWN RDO: DME will be shut down July 25 til aprxly July 29 for mod.

TENNESSEE

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constrn.

HALL, LAUDERDALE COUNTY ARPT: Abandoned arpt 1 mi NW. Unmrkd and extremely hazardous—not to be used for lndgs or tkofs.

KNOXVILLE RDO: July 25-26, VOR will be shut down. DME will be shut down July 25 til aprxly July 29 for ant replacement.

LEWISBURG, ELLINGTON ARPT: Rotating Bcn inop UFN.

MILLINGTON, SHELBY COUNTY ARPT: Rnwys 9-27, 14-32 clsd due constrn dalgt hrs thru aprxly Aug 1.

ROGERSVILLE, STIPES STRIP: Clsd UFN.

TEXAS

BEEVILLE, CHASE (NAAS) FLD: Rnwy 13R-31L clsd til aprxly Oct due constrn.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200' MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13-31 clsd.

CORPUS CHRISTI RDO: June 27, DME shut down til aprxly July 8.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

ELMDALE ARPK: New arpt under constrn 3 mi NE Abilene Muni Arpt. Clsd to all operns.

FAIRFIELD, WATSON ARPT: Rnwy lgts inop UFN.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1-19 clsd UFN.

MIDLAND ARPK: Rnwy 7 threshold displaced 434' for lndg rnwy 11 threshold displaced 662' for lndg.

PALESTINE MUNI ARPT: Tethered balloon operg SR-SS within grounds of National Scientific Balloon Flight Station at 525' AGL til aprxly July.

WICHITA FALLS, SHEPPARD AFB/WICHITA FALLS AIR TRML: N 3000' rnwy 17-35 clsd.

UTAH

DELTA MUNI ARPT: Rnwy 16-34 clsd til aprxly mid Aug due resurfacing.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

SALT LAKE CITY NO. 1 MUNI ARPT: Rnwy 14-32 clsd UFN due constrn.

VIRGINIA

BLACKSBURG, VPI ARPT: New NW/SE rnwy under constrn til aprxly Fall 1966. Proposed dimension 4200 x 100'.

CHARLOTTESVILLE-ALBEMARLE ARPT: Constrn in progress til aprxly Oct 18. Rnwy 3 threshold tmprly displaced 400' NE. Clsd to air carrier operns UFN. No ngt operns. Ctc FSS prior to lndg.

DUBLIN, NEW RIVER VALLEY ARPT: First 200' rnwy 23 unusable due rnwy extension in progress UFN.

GORDONSVILLE MUNI ARPT: Rotating bcn inop UFN.

WASHINGTON

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800-1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

WISCONSIN

LACROSSE RDO. MHW shut down UFN.

MADISON, TRUAX FLD: Until aprxly Aug, rebuilding E/W txwy.

WYOMING

WYOMING: ILS LMMs decmsnd July 21 at flwg arpts: Casper Air Trml, Cheyenne Muni, Rock Springs Muni.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

PUERTO RICO

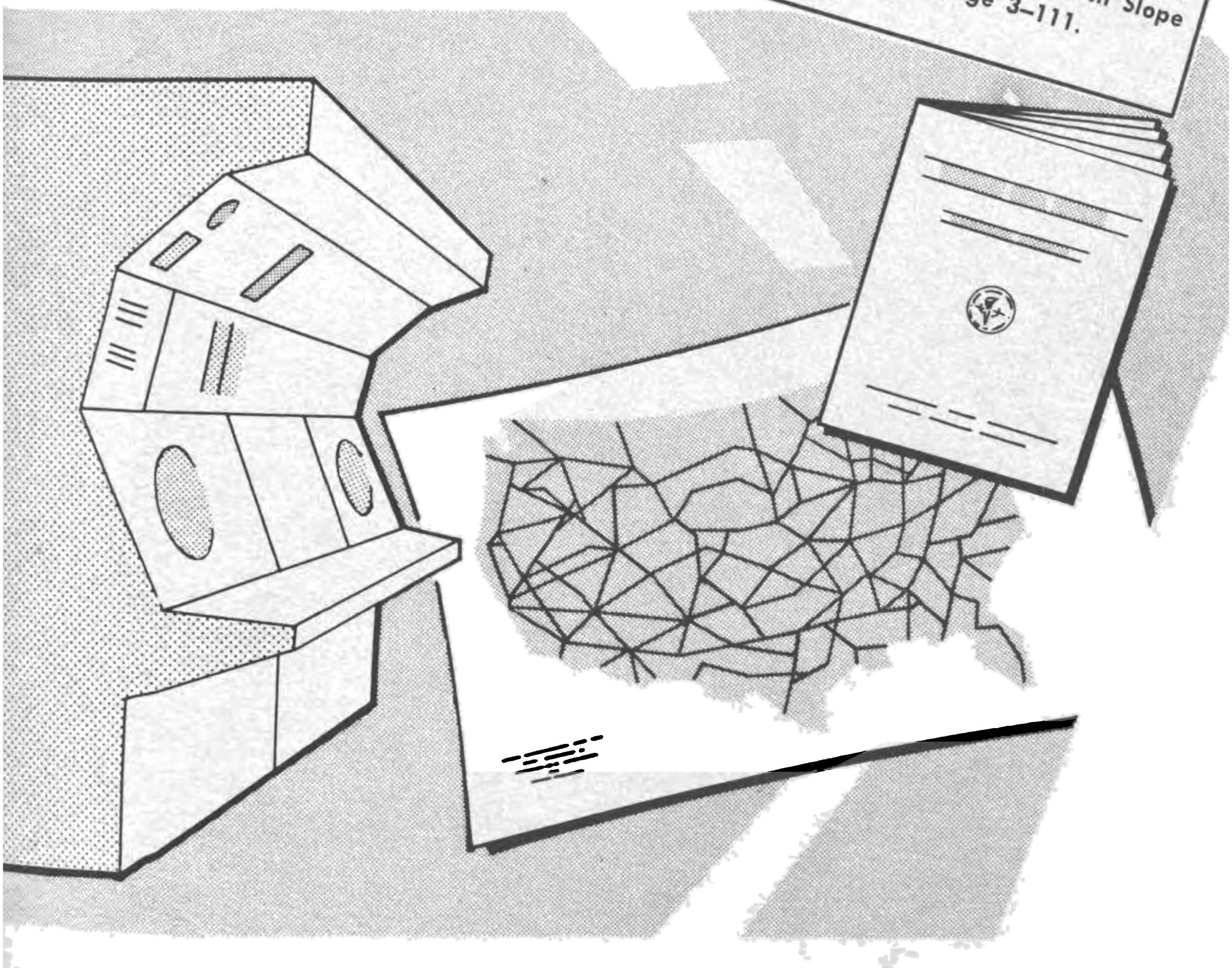
CHARLOTTE AMALE-ST. THOMAS, HARRY S TRUMAN ARPT: Til Oct 15, constrn work in progress lengthening rnwy. Vehicles operg in apch to rnwy 9 and on N edge and E end rnwy 27. Areas mrkd and lgtd.

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

PART 3

PILOT REMINDER
Use of VASI (Visual Approach Slope Indicator). See page 3–111.



Effective
18 AUGUST 1966
To 15 SEPTEMBER 1966

OPERATIONAL DATA AND NOTICES TO AIRMEN

AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately. New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot ● prefixing the heading, paragraph, or line. Highlights of each part are described below.

PART 1

Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PART 2

Airport Directory

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are open to the general public. It includes all of their facilities and services, *except communications*, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities.

Included, also, is a list of selected Commercial Broadcast Stations of 100 watts or more of power.

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Operational Data and Notices to Airmen

Part 3 is issued every 28 days and contains a Master Alphabetical Index covering all Parts of the AIM; an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Parachute Jump Areas; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Restrictions to Enroute Navigation Aids; VOR Receiver Check Points; Special General and Area Notices; New and Permanently Closed Airports, and Oil Burner Routes.

Part 3A is issued every 14 days and contains Notices to Airmen considered essential to the safety of flight as well as supplemental data to Part 3.

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Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT–430, Washington, D.C. 20553.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402

TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

- Abbreviations 3-v
- Address, Change of (See Notice of Editor) 3-57
- Airport/Facility Directory Legend 3-vii
- Airport/Facility Directory 3-1
- Airports, New and Permanently Closed 3-128
- Air Route Traffic Control Center Communications Frequency 3-46
- Boeing Low Level IFR Operations 3-132
- Chicago Terminal Area Chart 3-125
- Dates of Latest Editions (Aeronautical Charts) 3-153
- DME at ILS Locations 3-110
- Expanded Radar Service for Arriving and Departing Flights 3-122
- Flight Information Publication Policy 3-105
- FSS and Weather Bureau Telephone Numbers 3-48
- Low Altitude VFR Military Operations 3-132
- Master Alphabetical Index 3-i
- Military Aerial Refueling Tracks 3-131
- Notices to Airmen See Part 3-A
- Notice to Editor 3-57
- Oil Burner Routes 3-134
- Parachute Jumping Areas 3-60
- Part-time Controlled Airspace Designation 3-108
- Part-time Manned Facilities and AIDS 3-109
- Preferred Routes 3-66
- Publication Schedule 3-59
- Radio Class Designation 3-x
- Restrictions to Enroute Navigation Aids 3-90
- Runway Gradient 3-110
- Sectional Chart Bulletin 3-83
- Simultaneous Opposite Direction Operations on Parallel Runways 3-107
- Special Notices 3-105
  - General (Notices with universal application) 3-105
  - Area Notices (by state, city, etc.) 3-112
- Special Use Airspace 3-131
- Standard Instrument Approach Procedures Actions 5-151
- Standard Instrument Departures (SIDs) 3-73
- Substitute Route Structure 3-76
- Use of VASI 3-111
- VOR Receiver Check Points 3-97

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetical Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. Reference involving emergency activities or procedures is printed in bold-face type. The Part number is in bold type.

A

Part and Page

Abbreviations ... 3-v
Address, Change of (See Notice to Editor) ... 3-57
ADIZ and Designation Mountainous Areas Chart ... 1-85
ADIZ Procedures ... 1-83
Advisory Information, VFR ... 1-72
Advisory Service, Jet ... 1-58
Aeronautical Advisory Stations (UNICOM) ... 1-74
Aeronautical (Light) Beacons ... 1-17
Aeronautical charts, Dates of Latest ... 3-153
Aeronautical Information and the National Airspace System ... 1-24
Aeronautical Multicom Service ... 1-74
Aeronautical Publications ... 1-48
Aeronautical Terms, Glossary of ... 1- 1
(AID), Airport Information Desk ... 3-109
AIM Publication Schedule ... 3-59
Aircraft Call Signs ... 1-21
Aircraft Fuel ... 2, 3
Aircraft Storage/Repair ... 2, 3
AIRMETS and SIGMETS ... 1-32
Air Navigation Radio Aids ... 1- 7
Airport Advisory Service (Non-Radar) ... 1-72
Airport, Air Navigation Lighting and Marking Aids ... 1-17
Airport Directory ... 2-1
Airport Elevation ... 2, 3
Airport/Facility Directory ... 3- 1
Airport Identifying Code ... 1-18
Airport, IFR ... 2 & 3
Airport Information Desk (AID) ... 3-109
Airport, Lighted Land ... 1-17
Airport, Lighted Water ... 1-17
Airport Lighting Facilities ... 1-17, 2 & 3
Airport Marking Aids ... 1-19
Airport, Military (Lighting) ... 1-18
Airports of Entry ... 1-81, 2 & 3
Airport Runway Data ... 2, 3
Airports, New and Permanently Closed ... 3-128
Air Rescue Centers ... 1-91
Air Traffic Control Radar Beacon System (ATCRBS) ... 1-16, 1-62
Airway Beacons ... 1-18
Airway/Route Systems ... 1-57
Airway/Route Course Changes ... 1-58
Alcohol ... 1-41
Altimetry ... 1-30
Altitudes, Traffic Pattern ... 2
ANRA ... 1-7, 3-1
Alphabet, Phonetic ... 1-23
Approach Control ... 1-74
Approach Light System, Instrument ... 1-18
Approach Procedures Actions, Instrument ... 3-151
Area Notices ... 3-112
Arrival ... 1-72
ARTCC Communications Frequencies ... 3-46
ATC Clearance ... 1-54

Part and Page

(ATIS) Automatic Terminal Information Service ... 1-72, 3
Auxiliary Lights ... 1-17

B

Beacon, Airway ... 1-18
Beacon, Aeronautical (Light) ... 1-17
Beacon, Marker ... 1-10
Beacon Operation, Daylight ... 1-18
Beacon, Radio ... 1- 7
Beacon, Rotating ... 1-17
Beacon, Standards (deviations from) ... 1-18
Bird Hazards ... 1-44
Broadcast Stations, Commercial ... 2-225
Bulletin, Section Chart ... 3-83

C

Call Signs, Aircraft ... 1-21
Call Signs, Ground Stations ... 1-21
Carbon Monoxide ... 1-42
Ceiling ... 1-1, 1-33
Change of Address (Notice to Editors) ... 3-57
Changeover Points (VOR) ... 1-64
Chart Bulletin, Sectional ... 3-83
Charts, Dates of Latest Prints ... 3-153
Chart, Oil Burner Route ... 3-134
Chart, ADIZ and Mountainous Area ... 1-85
Civil Use of Military Fields ... 3-106
Class of VOR/VORTAC/TACAN ... 1-9
Clear Air Turbulance ... 1-33
Clearance, ATC ... 1-54
Climbing/Descending Aircraft ... 1-65
Cloud Heights, Reporting of ... 1-33
Code, NOTAM ... 1-25
Collision Reporting, Near Mid-Air ... 1-40
Commercial Broadcast Stations ... 2-225
Communications, Direct Pilot/Controller ... 1-69
Communications, Enroute ... 1-66
Communications Failure ... 1-92
Communications Frequencies, ARTCC ... 3-46
Compass Locator, ILS ... 1-11
Composite Flight Plan (VFR/IFR) ... 1-49
Consolan ... 1-14
Contact Procedure, Radio Telephone ... 1-21
Continental Control Area ... 1-58
Crash Locator Beacon ... 1-90
Cruising Altitudes, Enroute ... 1-71

D

Departure ... 1-53
Departure Communications ... 1-53
Departure Control ... 1-56
Departure, Standard Instrument (SID) ... 1-55, 3-73
Designated Mountainous Areas chart and ADIZ ... 1-85
Designation, Radio Class ... 3-x
Detouring Thunderstorms ... 1-36
Direct Communications, Controllers/Pilots ... 1-69
Direct Flights ... 1-51

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page
Direction Finder (VHF/UHF) 1-14
Directional Reporting 1-64
Distance Measuring Equipment (DME) 1- 8
Drugs 1-41

E
Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1- 89
Emergency Signals (Visual) 1-95
Enroute 1-57
Enroute Communications 1-66
Enroute Cruising Altitudes 1-71
Entry and Departure Requirements, U.S. 1-80
Expanded Radar Service for Arriving and
  Departing Flights 1-73, 3-122

F
FAA and NORAD Chart 1-88
Fatigue 1-41
Figures 1-22
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-105
Flight Information Publication Policy 3-105
Flight Service Stations/Weather Bureau Offices 3-48
Flight Standard District Offices 1-96
Frequency Pairing Plan 1- 9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-93

G
General Notices 3-105
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1- 1
Good Operating Practices 1- 5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H
Hand Signals 1-79
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-217
Holding 1-60
Hypoxia 1-41

I
IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-75
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-151
Instrument Departures (SID's), Standard 1-55, 3-73
Instrument Runway 1-20
Interception Pattern for Identification of
  Transport Aircraft 1-87
Interception Signals, U.S. 1-86

J
Jet Advisory Service 1-58

K
Key to Aviation Weather Reports 1-36

Part and Page
L
Lake, Island and Mountain Reporting Service 1-66
Landing 1-78
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-78
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-132

M
Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-79
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-131
Mountainous Area Chart and ADIZ 1-85

N
National Search and Rescue Plan 1-90
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-128
NORAD Chart, FAA and 1-88
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-57
Notices, Area 3-112
Notices, Special 3-105
Notices to Airmen 3A

O
Oil Burner Routes 3-134
Omnidirectional Range (VOR) 1-7

P
Panic 1-43
Parachute Jumping Areas 3-60
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-108
Part-time Manned Facilities and AIDS 3-109
Permanently Closed Airports, New and 3-128
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-66
Positive Control Area 1-58
Precision Approach, Radar 1-15
Preferred Routes 3-66
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-105
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-59

R
Radar 1-15
Radar Assistance to VFR Aircraft 1-65
Radar Beacon System (ATCRBS) 1-62
Radar Controlled Approaches 1-15
Radar Enroute Service 1-59
Radar Monitoring of Instrument Approaches 1-76
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-73
Radio Beacon 1- 7
Radio Class Designation 3-x
Radio Communications Failure 1-92

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radio Interference 1-14
Radio Range L/MF 1- 7
Radiotelephone Phraseology and Techniques 1-21
Receiver Check Points, VOR 1-8, 3-97
Refueling Tracks, Military Low Altitude Aerial 3-131
REIL, Runway End Identifiers 1-19, 2, 3
Repair, Aircraft 2, 3
Reporting, Directional 1-64
Reporting Service, Lake, Island and Mountain 1-66
Restricted Airspace 1-65
Restrictions to Enroute Navigation Aids 3-90
Rocky Mountain Reporting Service 1-68
Rotating Beacon 1-17
Runway End Identifiers (REIL) 1-19, 2, 3
Runway, Longest 2, 3
Runway Marking 1-19
Runway Surface 2, 3
Runway Visibility (RVV) 1-34
Runway Visual Range (RVR) 1-34
Runway Weight Bearing Capacity 2, 3

S

Safety of Flight (Wake Turbulence) 1-37
SCANTANA Procedures 1-83
Scheduled Weather Broadcasts 1-31
Scuba Diving 1-43
Seaplane Bases 2-212
Search and Rescue 1-90
Sectional Chart Bulletin 3-83
Sectional Charts, Dates of latest prints 3-153
SIDs (Standard Instrument Departures) 1-55, 3-73
SIGMET (Significant Meteorology), AIRMETS 1-32
Signals, Emergency 1-94
Signals, (Visual), Emergency 1-95
Signals, Light 1-53
Simultaneous Voice Transmissions from a
  Single Location 1-12
Special Notices 3-105
Special Use Airspace 1-70, 3-131
Special VFR Flight Clearance Procedures 1-54
Speed Adjustment of Arriving Aircraft 1-77
Standard Instrument Approach Procedures
  Actions 3-151
Standard Instrument Departures (SIDs) 1-55, 3-73
Storage, Aircraft 2, 3
Substitute Route Structure 3-76
Surveillance Radar 1-15

Part and Page

T

TACAN 1- 8
Terminal Radar Service 1-74
Thunderstorms 1-36
Time 1-22
Traffic Information Service, Radar 1-73
Traffic Pattern Altitudes 2
Traffic Pattern Direction, Landing 1-78
Transcribed Weather Broadcasts 1-31
Turbulence, Clear Air (CAT) 1-33
Turbulence, Wake 1-37
Two-Way Radio Communications Failure 1-92

U

UNICOM (Aeronautical Advisory Station) 1-74, 2, & 3
U.S. Entry and Departure Requirements 1-80

V

VASI (Visual Approach Slope Indicator) 1-19
Vertigo 1-42
VFR Advisory Information 1-72
VFR Conditions on Top 1-51
VFR Flight Clearance Procedures 1-55
VHF UHF Direction Finder 1-14, 3
Visibility, Observations 1-34
Vision 1-42
Visual Approach Slope Indicator (VASI) 1-19
VOR 1- 7
VOR Changeover Points 1-64
VOR Receiver Check Points 1-8, 3-97
VORTAC 1- 8
VOT (VOR Test Signal) 1-8, 3

W

Wake Turbulence 1-37
Warning Areas 1-70
Weather 1-31
Weather Briefing 1-49
Weather Broadcasts Format 1-32
Weather Broadcast, Scheduled 1-31
Weather Broadcast, Transcribed 1-31
Weather Broadcast, Unscheduled 1-32
Weather Bureau Offices/Flight Service Stations 3-48
Weather Radar 1-34
Weather Advisories, In-Flight 1-32

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in additionto frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower (City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense Visual Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	groundcontrolled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend or Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical radiators), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum en-route IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment
	visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing
	signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmission.
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omni-directional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omni-directional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (−) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, clay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S–000).

S–Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC–3), etc.

T–Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC–6), etc.

TT–Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T–).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

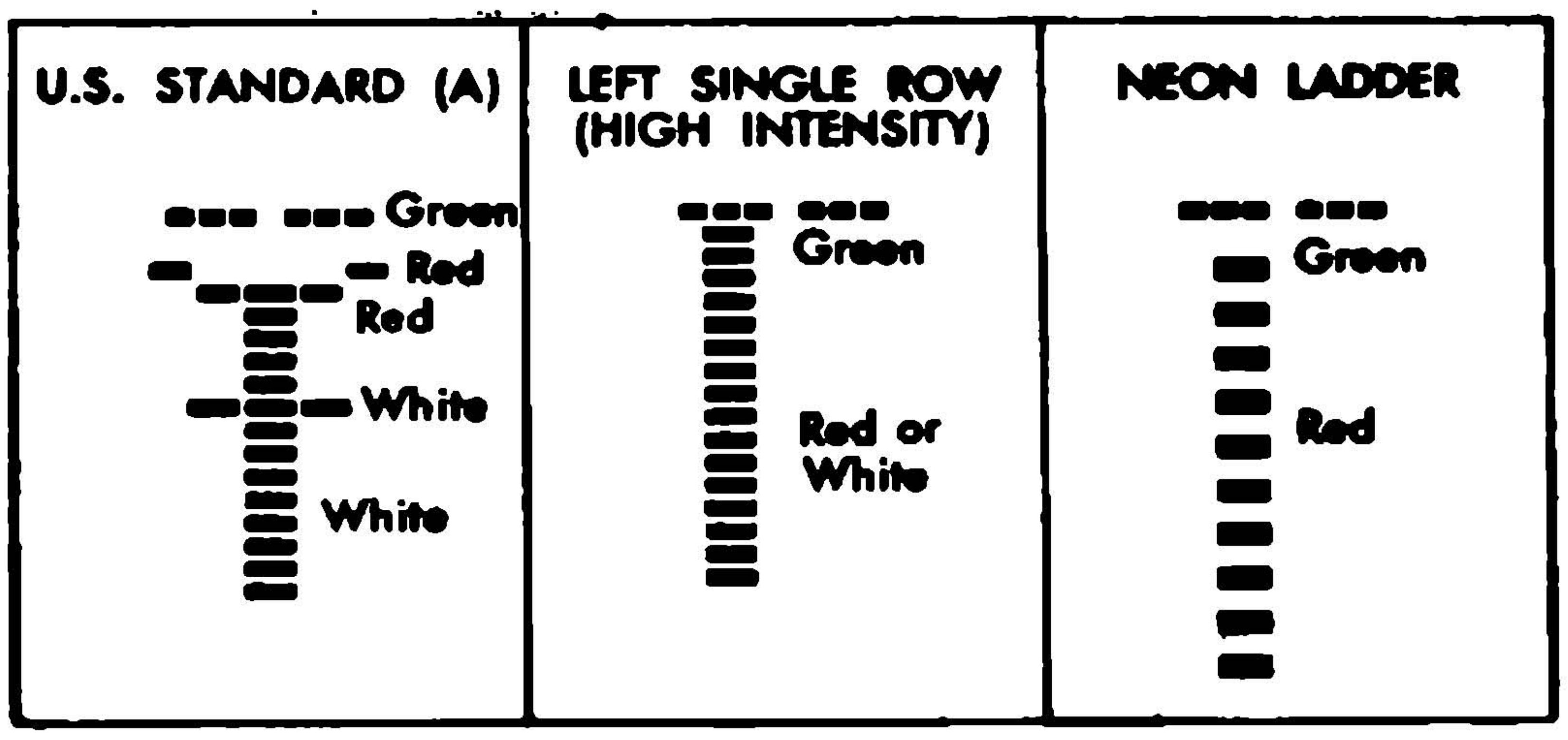
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting (when code **L4–7** is indicated, lighting **4, 5, 6, 7** is available). An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000′ out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)
13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	80 oct., at least.
F2	80/87 oct., or lower.
F3	91/96 oct., or lower.
F4	100/130 performance rating, or lower.
F5	115/145 performance rating, or lower.

TURBINE FUELS

TP–1	650 turbine fuels for civil jets.
JP–1	(Kerosene), **JP–3, JP–4, JP–5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25–September 26 and April 25–October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.

VASI—Visual Approach Slope Indicator, applicable runway provided.

RVV—Runway Visibility Values, applicable runway provided.

RVR—Runway Visual Range, applicable runway provided.

FSS—The name of the associated FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481-5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"FEE" indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"Rgt tfc 13–31" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a cross-out: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

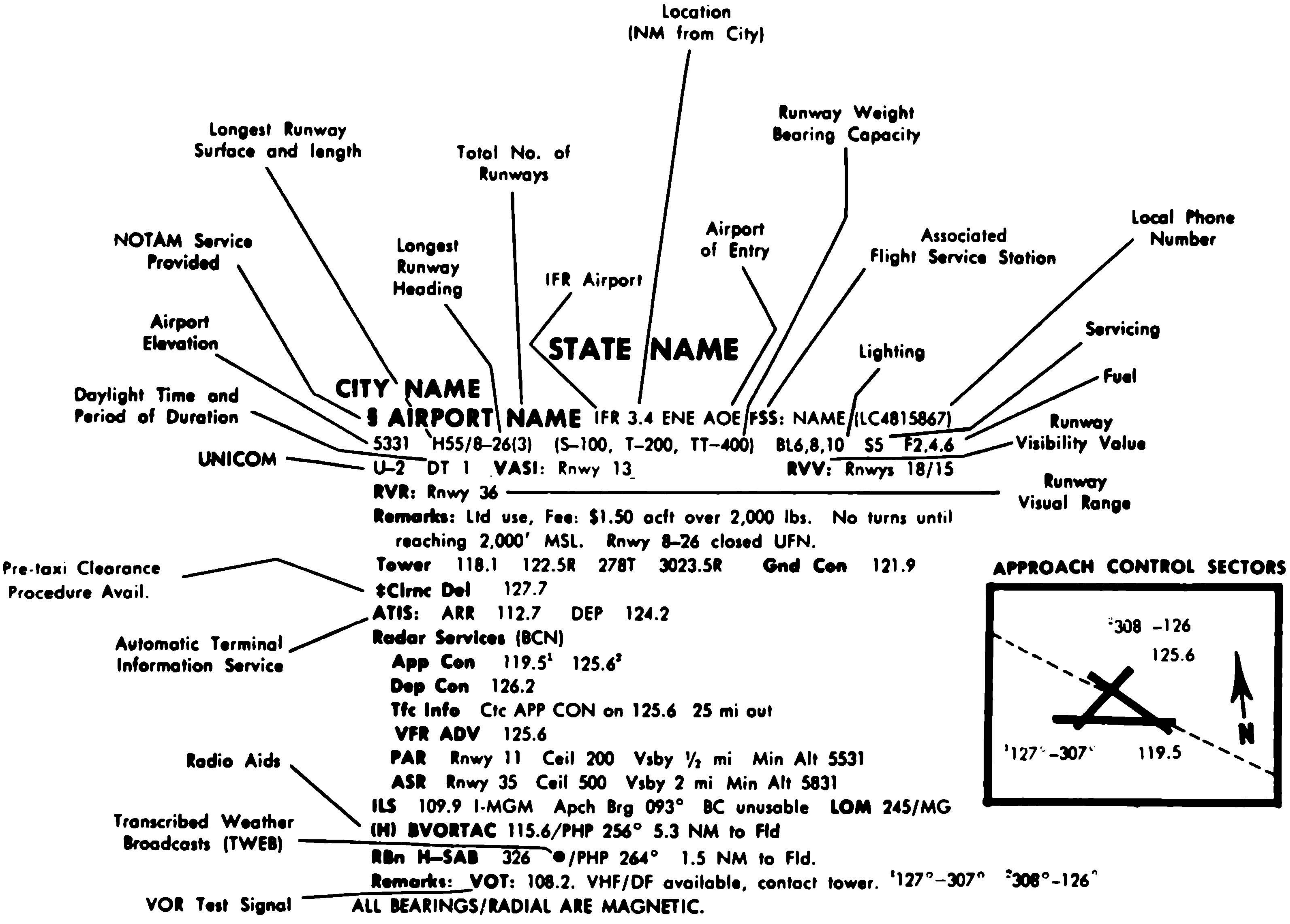
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U–1—122.8 mc (at airports without a control tower).

U–2—123.0 mc (at airports with a control tower). tower).

SAMPLE



STATE NAME

CITY NAME

§ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC4815867)
5331 H55/8–26(3) (S–100, T–200, TT–400) BL6,8,10 S5 F2,4,6
U–2 DT 1 VASI: Rnwy 13 **RVV:** Rnwys 18/15
RVR: Rnwy 36
Remarks: Ltd use, Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000′ MSL. Rnwy 8–26 closed UFN.
Tower 118.1 122.5R 278T 3023.5R **Gnd Con** 121.9
‡Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
  App Con 119.5^1 125.6^2
  Dep Con 126.2
  Tfc Info Ctc APP CON on 125.6 25 mi out
  VFR ADV 125.6
  PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
  ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° BC unusable **LOM** 245/MG
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H–SAB 326 ●/PHP 264° 1.5 NM to Fld.
Remarks: VOT: 108.2. VHF/DF available, contact tower. ^{1}127°–307° ^{2}308°–126°
ALL BEARINGS/RADIAL ARE MAGNETIC.

APPROACH CONTROL SECTORS

Location (NM from City)
Runway Weight Bearing Capacity
Longest Runway Surface and length
Total No. of Runways
NOTAM Service Provided
Longest Runway Heading
IFR Airport
Airport of Entry
Associated Flight Service Station
Local Phone Number
Airport Elevation
Servicing
Lighting
Fuel
Daylight Time and Period of Duration
Runway Visibility Value
UNICOM
Runway Visual Range
Pre-taxi Clearance Procedure Avail.
Automatic Terminal Information Service
Radio Aids
Transcribed Weather Broadcasts (TWEB)
VOR Test Signal
²308 –126
125.6
N
¹127°–307°
119.5

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000' MSL	115.2 smi (100 nmi)
L	Up to 18,000' MSL	46.06 smi (40 nmi)
T	Up to 12,000' MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

Note: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiators), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600–2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

ALABAMA

ANNISTON (L) BVOR 108.8/ANB FSS: ANNISTON
RBn BMH [1]278/ANB
Remarks: [1]For use within 10 mi stn ADF apch only.

§BIRMINGHAM MUNI *IFR* 4NE FSS: BIRMINGHAM on fld
643 H92/5–23(2) (S–120, T–170, TT–300) BL6,8A,9,10 S5
F5, JPI, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Jet barrier on overrun rnwy 23. Rnwy 23 threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I–BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) BVORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H–SAB 224●/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H–SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM FSS: MOBILE

BROOKWOOD (L) BVOR 111.0/BWA FSS: BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU FSS: HUNTSVILLE

§DOTHAN *IFR* 7NW FSS: DOTHAN on fld
395 H56/18–36(3) (S–60, T–105, TT–190) BL6 S5 F4 U–1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
VFR ADV: Ctc Cairns APP/DEP CON
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF Ctc FSS.

EUFAULA (L) BVOR 109.2/EUF FSS: DOTHAN

GADSDEN (L) BVORTAC 112.3/GAD FSS: ANNISTON

HAMILTON (L) BVOR 110.4/HAB FSS: MUSCLE SHOALS

§HUNTSVILLE-MADISON *IFR* 3S FSS: MUSCLE SHOALS (DL)
619 H52/18–36 (2) (S–50, T–85, TT–130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I–HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF FSS: MONTGOMERY

MOBILE
§BATES FLD *IFR* 9W FSS: MOBILE on Fld
217 H78/14–32(3) (S–40, T–150, TT–280) BL4,6,8A,9 S5
F5 JP1, U2 **RVV** Rnwy 14
Remarks: Threshold displaced 1000′ NW runwy 32
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I–MOB Apch Brg 141° BC unusable **LOM:** 248/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn BH 248/MO 140° 4.6NM to fld.
Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090–110° rad. LOM is BH.

ALABAMA—*Continued*

MONROEVILLE FSS: MOBILE
(L) BVOR 116.8/MVC

MONTGOMERY
§DANNELLY FLD *IFR* 6SW FSS: MONTGOMERY on Fld
221 H90/9–27(3) (S–120, T–170), TT–300) BL4,6,8A,9 S5
F5 JP1 U2 **RVR:** Rnwy 9
Remarks: J–Bar runwy 9–27. Closed to acft heavier than Super G Constellation and DC–7 regardless of wt displacement per wheel.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I-MGM Apch Brg 093° **LOM** 245/MG
VHF/DF Ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL FSS: MUSCLE SHOALS

REDSTONE (L) VOR 111.2/HUA FSS: MUSCLE SHOALS
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM FSS: MONTGOMERY

TUSCALOOSA (L) BVORTAC 117.8/TCL FSS: TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE FSS: MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK FSS: PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG FSS: PHOENIX

COCHISE (L) BVORTAC 110.4/CIE FSS: DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG FSS: DOUGLAS

FLAGSTAFF (T)VOR 108.2/FLG FSS: PRESCOTT

GRAND CANYON (T)BVOR 109.0/GCN FSS: PRESCOTT

GILA BEND (H) BVORTAC 116.6/GBN FSS: PHOENIX

LIBBY (L) VOR 111.6/FHU FSS: DOUGLAS

PEACH SPRINGS (H) BVORTAC 112.0/PGS FSS: PRESCOTT

PHOENIX
§SKY HARBOR MUNI *IFR* 3E FSS: PHOENIX on Fld
1122 H103/8R–26L(2) (S–100, T–200, TT–370) BL4,10 S5
F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R–26L avbl ngts.
Phoenix Tower 118.7 122.5R 120.9 **Gnd Con** 121.9
Clrnc Del 121.9
ATIS: 120.4
Phoenix App Con 119.2 124.1 115.6T
Phoenix Dep Con 118.1 120.7
Phoenix RBn BHZ 326/PHX 264° 1.5NM to fld.
VHF/DF Ctc FSS.
Remarks: **VOT:** 109.0

PRESCOTT (H) BVORTAC 114.1/PRC FSS: PRESCOTT

ST. JOHNS (H) BVORTAC 112.3/SJN FSS: ZUNI

SAN SIMON (H) BVORTAC 115.4/SSO FSS: DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC FSS: PRESCOTT

ARIZONA—*Continued*

§TUCSON INTL ***IFR*** 6S AOE **FSS:** TUCSON on Fld
2630 H120/12L-30R(3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2
Remarks: 5649′ avbl Indg rnwy 3, 6000′ avbl rnwy 21. Jet arresting gear rnwy 12L-30R. 1000′ overrun each end rnwy 12L-30R.
Tower: 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.5 134.1 126.2 125.9 125.1 122.5R
Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.
VHF/DF Ctc FSS.
(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.
RBn H-SABZ 338●/TUS 083° 10.6NM to fld.

WINSLOW (H) BVORTAC 112.6/INW **FSS:** PRESCOTT
RBn H-SAB 266●/INW

§YUMA MCAS/INTL ***IFR*** 3S AOE **FSS:** YUMA on Fld
213 H133 (3L-21R)(4) (S-103, T-225, TT-410) BL4,6 S5 F4
Remarks: Rnwy 17-35 GWT (S-170, T-200, TT-400). Jet arresting gear rnwys 3L-21R, 3R-21L.
Tower 126.2 121.5 122.5R 119.3 **Gnd Con:** 121.9
VHF/DF Ctc twr.
(H) BVORTAC 116.8/YUM 167° 6.0NM to fld.
RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH
RBn HW 311/BYH

BRUINS RBn MHW 215/BSA **FSS:** MEMPHIS

CABOT (L) VOR 108.4/CBT **FSS:** LITTLE ROCK
RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT **FSS:** EL DORADO

DRAKE (T) BVOR 108.8/DAK **FSS:** FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD **FSS:** EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV **FSS:** FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP **FSS:** HARRISON

§FORT SMITH MUNI ***IFR*** 4SE **FSS:** FORT SMITH on Fld
468 H80/7-25(2) (S-90, T-120, TT-) BL4,6,8A,9 S5
F-5, JP-1 U2 **RVV:** Rnwy 25
Remarks: Jet barrier rnwy 7-25.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 125.4 126.2 118.3 110.4T 109.5T 311T[1]
ILS 109.5 I-FSM Apch Brg 254° BC unusable **LOM:** 223/FS
(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.
RBn BMH[1] 311/FSM 161° 9.8 NM to fld.
RBn H-SAB 223/●FS 254° 6.9NM to fld.
Remarks: LOM is H-SAB. [1]To be decmsnd.

HARRISON (L) BVOR 110.8/HRO **FSS:** HARRISON

HOT SPRINGS
§MEMORIAL FLD ***IFR*** 3SW **FSS:** PINE BLUFF (LC NA 4-4481)
535 H50/5-23(2) (S-35, T-49, TT-78) BL4 S5 F4 JP-1
Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7
Hot Springs App Con 120.3 122.5R 110.0T 248T
Hot Springs (L) VOR 110.0/HOT on fld.
Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK
§ADAMS FLD ***IFR*** 2E **FSS:** PINE BLUFF (LC FR 6-4348)
257 H70/4-22(3) (S-49, T-173, TT-136) BL4,6,8A,9 S5
F4, JP1, JP4 U2 **RVV:** Rnwy 4
Remarks Fee civil acft over 10,000 lbs.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T

ARKANSAS—*Continued*

Little Rock Dep Con 118.1
Tfc Info All inbnd acft ctc App Con 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I-LIT Apch Brg 041° **LOM:** 219/LI
Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.
Little Rock RBn H-SAB 353●/LIT 316° 3.3NM to rnwy 32.
Remarks: [1]001-180° [2]181-360°.

MONTICELLO (L) BVORTAC 111.6/MON **FSS:** PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF **FSS:** PINE BLUFF

ROGERS RBn MHW 263/ROG **FSS:** FAYETTEVILLE

STUTTGART RBn MHW 269/SGT **FSS:** PINE BLUFF
Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK **FSS:** TEXARKANA
RBn SBH 329/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG **FSS:** WALNUT RIDGE

CALIFORNIA

ARCATA
§ARCATA-EUREKA ***IFR*** 7NW **FSS:** ARCATA on Fld
217 H60(2)(13-31) (S-90, T-140, TT-260) BL5,6,8A,9,10 F4 DT2
VASI: Rnwy 13 **RVV:** Rnwy 31
Remarks: Rgt tfc rnwys 13, 19.
ILS 109.5 I-ACV Apch Brg 314° BC unusable **LMM:** 233/CV
VHF/DF Ctc FSS.
Remarks: SLMM unusable btn 120-150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE **FSS:** PASO ROBLES

BAKERSFIELD
§MEADOWS FIELD ***IFR*** 4NW **FSS:** BAKERSFIELD on Fld
488 H57/12L-30R(2) (S-110, T-170, TT-300) BL4,6,8A,9
S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R
Tower 118.1 122.5R **Gnd Con** 121.9
Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8
ILS 109.9 I-BFL Apch Brg 299° **LOM:** 278/BF
VHF/DF Ctc FSS.
Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR **FSS:** SALINAS

BLYTHE (H) BVORTAC 117.4/BLH **FSS:** BLYTHE
RBn SABH 251●/BLH

BURBANK
§LOCKHEED AIR TERMINAL ***IFR*** 3NW **FSS:** LOS ANGELES (DL)
775 H69 (15-33)(2) (S-80, T-150, TT-280) BL5,6,8A,9,11
S5 F5, JP1, JP4 U2 DT2 **REIL** rnwy 15
Remarks: Rnwy 15 displaced threshold 900′. S 6060′ avbl Indg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ Indg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
Burbank Tower 118.7 122.7R ~~101.6~~ **Gnd Con** 121.9
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
Tfc Info Ctc Burbank App Con 30 NM out on 120.9.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS [2]109.5 I-BUR Apch Brg 076° **LOM:** 272/BU
VHF/DF[1] Ctc twr.
Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°-085°; below 4000′ 085°-240°; below 6000′ 240°-320°; below 10,000′ 320-360°. [2]Glide slope unusable below 1075′ MSL.

CAMARILLO RBn HW 359/CAV **FSS:** LOS ANGELES

CALIFORNIA—*Continued*

CASTLE (L) VOR 114.2/MER

RBn MHW 409/ME

CHICO (T) BVOR 109.8/CIC **FSS:** RED BLUFF

COLTON RBn HWZ 397/SB **FSS:** THERMAL

CONCORD

§BUCHANAN FIELD *IFR* 1N **FSS:** OAKLAND (DL)

19 H50/1–19(3) (S–60, T–80, TT–130) BL5 S5 DT2 F4

Tower[1] 119.7 122.4R **Gnd Con** 121.9

Radar Services:

Travis App Con 119.9

T–BVOR 110.6/CCR 171° 3.1 NM to fld.

Remarks: [1]Oper 1500–0700Z.

CRESCENT CITY (L) BVORTAC 109.0/CEC **FSS:** CRESCENT CITY

DAGGETT (L) BVORTAC 113.2/DAG **FSS:** DAGGETT

DOWNEY RBn HW 371/DOW **FSS:** LOS ANGELES

EDWARDS (L) VORW 116.4/EDW

RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ

RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW **FSS:** BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM **FSS:** LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS **FSS:** MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT **FSS:** ARCATA

§FRESNO AIR TERMINAL *IFR* 5 NE **FSS:** FRESNO on Fld

332 H92/11L–29R(3) (S–50, T–70, TT–140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.

Remarks: Rgt tfc rnwy 7 & 11. Jet barrier arresting gear 11L–29R.

Tower 118.7 122.7R 110.3T **Gnd Con** 121.9

Radar Services: (BCN)

App Con 119.6 126.9

Dep Con 126.9

ILS 110.3 I–FAT Apch Brg 289° **LOM:** 266/FA

VHF/DF Ctc FSS.

(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.

RBn H–SAB 344●/FAT 049° 6.2 NM to fld.

§FRESNO–CHANDLER *IFR* 2W **FSS:** FRESNO (DL)

283 H35/11R–29L(2) (S–17 T–TT–) BL5 S5 F4 U2 DT2

Remarks: Rgt tfc rnwy 11R. Rnwy 29L threshold displaced 730′ NW, rnwy 11R displaced 495′ SE.

Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7

Radar Services: (BCN)

Fresno App Con 119.6 126.9

Fresno Dep Con 126.9

Remarks: [1]Oper 1400–0600Z.

FRIANT (L) BVORTAC 115.6/FRA **FSS:** FRESNO

§FULLERTON MUNI *IFR* 3W **FSS:** LOS ANGELES (DL)

96 H31/6–24(1) (S–8, T–, TT–) BL5,11 S5 F4 U2 DT2

REIL: Rnwy 24.

Remarks: Rnwy 6 threshold displaced 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 threshold displaced 263′ W. 2857′ avbl lndg rnwy 24. Rgt tfc rnwy 24. Entry alt 1200′ MSL. P-line NE. Overngt tiedown fee. Prior approval acft over 12,500 GWT and single eng acft 1000 or more hp.

Tower[1] 119.1 122.6R ~~121.5~~ **Gnd Con** 121.7

Radar Services:

Long Beach App Con 124.2 135.8 110.3T

Long Beach Dep Con 127.2

Remarks: [1]Oper 1400–0600Z.

CALIFORNIA—*Continued*

GAVIOTA (L) BVORTAC 116.5/GVO **FSS:** SANTA BARBARA

GEORGE (L) VOR 108.6/VCV **FSS:** PALMDALE

GOFFS (L) BVOR 114.4/GFS **FSS:** NEEDLES

GORMAN (L) BVORTAC 116.1/GMN **FSS:** BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

§HAWTHORNE MUNI *IFR* 1E **FSS:** LOS ANGELES (DL)

64 H45/7–25(1) (S–30, T–50, TT–) BL4,11 S–5 F4 U2 DT2

REIL[1] rnwy 25

Remarks: Rnwy 7 threshold displaced 1025′ E, 3975′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 475′ W. 4525′ avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. P-line NE. Rgt tfc E. [1]REIL inop 2300–0700. Prior approval rqrd jet powered acft.

Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.9

Radar Services:

Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T

Los Angeles Dep Con 124.3[2] 125.2[3]

Remarks: [1]Oper 0700–2300 lcl time. [2]045°–224°. [3]225°–044°.

HAYWARD AIR TERMINAL *IFR* 2SW **FSS:** OAKLAND (LC 562–7807)

46 H52/10R–28L(2) (S–100, T–190, TT–290) BL4 S5 F4 DT2

Remarks: Rnwy 22 threshold relctd 1850′ SW; rnwy lgts 3150′. TPA 600′ excp rnwy 10L–28R 3150′.

Tower 118.9 122.5R 212T **Gnd Con** 121.7

Radar Services:

Oakland App Con 118.1 116.8T

Oakland Dep Con 124.7 120.9 116.8T

RBn MHW 242/HWD 243° 0.4 to fld

Remarks: [1]Oper 0600-2400 lcl time.

HECTOR (H) BVORTAC 112.7/HEC **FSS:** DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL **FSS:** IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI **FSS:** SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS **FSS:** PALMDALE

LA VERNE

BRACKETT FLD *IFR* 1SW **FSS:** ONTARIO (DL)

997 H40/8–26(1) BL4 S5 U2 DT2

Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.

Tower[1] 118.2 122.7R ~~121.5~~ **Gnd Con** 121.7

VFR ADV: Ctc March APP CON 120.8, 122.5R/DEP CON 125.5, 122.5R

Remarks: [1]Oper 0700–2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN **FSS:** STOCKTON

LONG BEACH *IFR* 3NE **FSS:** LOS ANGELES (DL)

§LONG BEACH (Daugherty Fld)

58 H100/12–30(5) (S–65, T–110, TT–180) BL4,6,8A,10,11,12 S5 F5, JP1, JP4 U2 DT2 **RVR:** Rnwy 30.

Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R, 34R.

Long Beach Tower 119.5[1] 120.5[2] 126.2[3] 122.4R[1]

Gnd Con 121.9

Radar Services:

Long Beach App Con 124.2 135.8 110.3T

Long Beach Dep Con 127.2

ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558

ILS 110.3 I–LGB Apch Brg 300° **LOM** 233/LG

VHF/DF[1] Ctc twr.

CALIFORNIA—*Continued*

(L) BVORTAC 115.7/LGB 274° 4.4NM to fld
Remarks: [2]For all right rnwys. **VOT:** 109.0

§LOS ANGELES INTL ***IFR*** 9SW **FSS:** LOS ANGELES on Fld
126 H120/7R-25L(4) (S-100, T-180, TT-340)
BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R
RVV: Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R
Remarks: Rnwy 34 threshold displaced 1679′ N. Rnwys 25L, 25R thresholds displaced 600′ W. Rnwy 16–34 (S125 T200+ TT400+).
Tower 118.9 125.8 123.7[1] 122.7R **Gnd Con** 121.6 121.8
‡**Clrnc Del** 126.85 121.4
ATIS: 108.5
Radar Services:
App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Dep Con 125.2[3] 124.3[2]
Tfc Info ctc App Con 30 mi out.
PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.
ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426
ILS[4] 109.9 I-LAX Apch Brg 248° **LOM:** 266/LA
VHF/DF ctc twr.
(H) BVORTAC 113.6/LAX at fld.
RBn SABH 332●/LAX 245° 3.4 NM to fld.
Remarks: [1]Heli Operas. [2]035–224° [3]225–044° [4]Glide slope unusable below 300′ MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)
§VAN NUYS ***IFR*** 3NW **FSS:** LOS ANGELES (DL)
800 H80/16R-34(2) (S-70, T-120, TT-210) BL5,11 S5 F4
JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R
Remarks: Rnwy 16R threshold displaced 1376′ S. 6624′ avbl lndg rnwy 16R. Rnwy 16L-34R daylgt use only. Rnwy 16L threshold displaced 1432′ S. 2568′ avbl lndg rnwy 16L. Parallel 2000′ strip bet 16L-34R and 16R-34L clsd except emerg.
Tower 120.3[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7
ATIS:[1] 113.1
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
(L) VOR 113.1/VNY on fld.
Remarks: [1]Oper 0600–2200 lcl time. [2]360–149° and departure rnwy 16L-34R. [3]150–359° and departure rnwy 16R-34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN **FSS:** FRESNO

MARYSVILLE (T) BVOR 110.8/MYV **FSS:** MARYSVILLE

MATHER (L) VORW 114.6/MHR **FSS:** SACRAMENTO

MAXWELL (L) BVORTAC 110.0/MXW **FSS:** MARYSVILLE

McCLELLAN RBn MHW 395/MCC **FSS:** SACRAMENTO

MODESTO
§CITY-COUNTY ***IFR*** 2 SE **FSS:** STOCKTON (DL)
96 H50 (2) BL4 S5 F4 DT2
Remarks: Rgt tfc rnwys 11R, 29R.
Tower[1] 120.0 122.7R **Gnd Con** 121.7
Modesto (T) BVOR 108.4/MOD
Remarks: [1]Oper 1400–0600Z.

MONTAGUE
SISKIYOU COUNTY ***IFR*** 4NE **FSS:** MONTAGUE ON FLD
2651 H75(1) (S90 T120 TT175) BL4 S5 F4 DT 2
Tower[1] 126.2 118.7T 122.5R
Montague RBn BH 382/SIY
Remarks: [1]Opers 1600–2400Z. Mon-Fri, clsd holidays. During hrs twr not in opern AAS will be provided by the FSS.

CALIFORNIA—*Continued*

§MONTEREY PENINSULA ***IFR*** 3SE **FSS:** SALINAS (DL)
220 H50/10-28(2) (S-40, T-70, TT-120) BL5,6,8A,9 S5 F5, JP1 U2 DT2
Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.
Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9
Monterey App Con 120.8
Monterey Dep Con 120.8
ILS[1] 110.1 I-MRY Apch Brg 096° **LOM:**[2] 281/MR
Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130–150°.

§NAPA COUNTY 5S **FSS:** OAKLAND (DL)
33 H53/18-36(2) BL4 S5 F4 DT2
Tower[1] 118.8 122.7R **Gnd Con** 121.7
(L) BVORTAC 112.1/APC
Remarks: [1]Opers 0700–2300 lcl time.

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON L) VORW 117.6/SBD
RBn MHW 347/BD

OAKLAND
§OAKLAND INTL ***IFR*** 4S **FSS:** OAKLAND on Fld 6 H100/11-29(4) (S-100, T-160, T-290) BL6,8A,9,14,15 S5 F5, TP1, JP4 U2 DT2
RVV: Rnwy 27R **RVR:** Rnwy 29
Remarks: Rnwy 33 threshold displaced 2113′ N. Rgt tfc rnwys 27R, 9R, 33 & 11. Overngt tiedown fee.
Oakland Tower 118.3 126.0 122.6R 116.8T
Clrnc Del 121.1
Gnd Con 121.9 121.6
ATIS: 108.7 109.9
Radar Services: (BCN)
Oakland App Con 118.1[1] 116.8T 120.9[2]
Oakland Dep Con 124.7
Tfc Info Call App Con 25 mi out.
PAR[4] Rnwy 29 Ceil 200 Vslby ½ mi Min Alt 206
ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.
ILS 108.7 I-INB Apch Brg 293X BC unusable **LOM:** 266/IN
109.9[5] I-OAK Apch Brg 275° BC unusable
VHF/DF[3] Ctc twr.
Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.
Oakland RBn SABH 362●/OAK on fld.
Remarks: [1]271–090° 090–270° [3]Unusable below 6000′ MSL 360–050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. [5]Glide slope rnwy 27 unusable for auto apchs. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

§ONTARIO INTL ***IFR*** 2E **FSS:** ONTARIO on Fld
952 H100/7-25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 1000′ on W end. 1000′ overrun E end rnwy 7-25.
Tower 118.5 122.5R **Gnd Con** 121.9
Clrnc Del 120.6
Radar Services: (BCN)
March App Con 120.8 122.5R 111.4T
March Dep Con 125.5 122.5R
ILS 109.7 I-ONT Apch Brg 255° **LOM:** 227/OM
(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VORTAC 111.2/OAF

OXNARD
§VENTURA COUNTY ***IFR*** 1W **FSS:** SANTA BARBARA (DL)
43 H59/7-25(1) (S-36, T-48 TT-75) BL4,11 S5 F4, JP4 U2 DT2 **REIL** rnwy 25.
Remarks: Rnwy 25 threshold displaced 1377′ W. 4570′ avbl

CALIFORNIA—*Continued*

Indg rnwy 25. Rnwy 7 threshold 750′ E. 5197′ avbl Indg rnwy 7.
Tower 120.7 122.4R ~~121.5~~ **Gnd Con** 121.9
Oxnard App Con 124.7 122.5R
Oxnard Dep Con 124.7
Ventura (L) BVORTAC 108.2/VTU
Remarks: [1]Opers 0600–2200 lcl time.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF
RBn SABH 338/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)
816 H46/9–27(2) BL5, 11 S5 F4 U2 DT2
Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.
Tower[1] 121.0 122.6R ~~121.5~~ **Gnd Con** 121.7
VFR ADV Ctc March App Con 120.8 122.5R/Dep Con 125.5 122.5R
(T) VOR 111.4/RAL
Remarks: [1]Opers 0600–2200 lcl time.

§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld
21 H60/2–20(3) (S–90, T–120, TT–180) BL4,6 8A, 9 S5 F4, TP–1 U2 DT2 **RVV:** Rnwy 2
Remarks: Antenna NNW. 2200′ apch lgtg rnwy 2. Perimeter txwy to rnwy 30 not visible from twr, ctc twr when number one for dptr.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS: 110.3
Radar Services: (BCN)
App Con 119.1 125.2 121.0 122.5R
Dep Con 124.5
VHF/DF Ctc FSS.
ILS 110.3 I–SAC Apch Brg 016° **LOM:** 356/SA
(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO

§MONTGOMERY FLD 6N **FSS:** SAN DIEGO (LC 296–3181)
423 H34/10–28(2) (S30– T–, TT–) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwys 5, 10.
Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9
(H) BVORTAC 117.8/SAN 050° 5.2 NM to fld.
Remarks: [1]Opers 0700–2300 lcl time

§SAN DIEGO CO—GILLESPIE FLD 10NE **FSS:** SAN DIEGO (LC 296–3181)
385 H53(9–27(2) (S–67, T–113, TT) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl Indg rnwy 27. Rnwy 17–35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.
Gillespie Tower[1] 120.7 122.7 **Gnd Con** 121.7
Remarks: [1]Oper 0700–2300 lcl time

§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE **FSS:** SAN DIEGO on Fld
15 H87/9–27(2) (S–100, T–200, TT–400) BL5,6,8A,9,11 S–5 F5, JP1 U2 DT2 **REIL:** Rnwy 27

CALIFORNIA—*Continued*

Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl Indg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions. Twr unable to see ramp area W of the Ryan Aero Plant and S of the parallel txwy.
Tower 118.3 122.5R 109.6T **Gnd Con** 121.7
Radar Services: (BCN)
San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T
San Diego Dep Con 125.7[3] 125.3[4]
Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I–SAN Apch Brg 092° **LOM:** 278/SA
Lindbergh (L) BVOR 109.6/LIF on fld.
Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)
12, H97(10L–28R) (4) (S–200, T–200, TT–400) BL6,8A,9,10,11,12 S–5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVV:** Rnwy 19 **RVR:** Rnwy 28R
Remarks: Rnwy 28R threshold displaced 200′ NW. 9496′ avbl Indg rnwy 28R. Rnwy 1R threshold displaced 1100′ NE. 8400′ avbl Indg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop.
Tower 120.5 122.7R **Gnd Con** 121.8
‡Clrnc Del 121.4
ATIS: 111.2
Radar Services:
App Con 124.9[1] 119.3[2] 111.2T 109.5T
Dep Con 124.4 128.5
Tfc Info Ctc OAK app con 0600–1400 for trml radar service.
PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.
ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412.
Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512
ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF
VHF/DF Ctc twr.
(L) VOR 111.2/SFO at fld.
RBn MHW 275/SIA 191° 0.6 to rnwy 19L.
Remarks: [1]315–134°, [2]135–314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0 unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)
56 H78/12R–30L (2) (S–100, T–150, TT–230) BL6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30L
Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl Indg rnwy 30L. Twr unable to see NE tfc patn.
Tower 120.7[2] 122.4R 124.0[1] **Gnd Con** 121.7
ATIS[3] 108.2
Radar Services: (BCN)
Moffett App Con 120.1 123.7 122.4R 110.9T 108.2T
Moffett Dep Con 121.3 122.4R 108.2T
Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
(L) VOR 108.2/SJC on fld.
Remarks: [1]Rnwys 30L–12R [2]Rnwys 30R–12L [3]Opers 0800–2000 lcl time

SAN LUIS OBISPO (L) BVORTAC 112.4/SBP **FSS:** PASO ROBLES

CALIFORNIA—*Continued*

SANTA ANA
§ORANGE COUNTY *IFR* 4 S **FSS:** LOS ANGELES (DL)
53 H57/1L-19R(2) (S-68, T-95, TT-170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

§SANTA BARBARA MUNI *IFR* 7 W **FSS:** SANTA BARBARA on fld
14 H50/7-25 (2) (S-40, T-71, TT-117) BL5,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 7-25 overrun unlgtd. Rnwy 25 threshold displaced 296′ E end rnwy 25, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I-SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC **FSS:** LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX

§SANTA MONICA MUNI *IFR* 3 E **FSS:** LOS ANGELES (DL)
175 H50/3-21 (1) S-80, T-120, TT-220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[3] 120.1 122.6R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[1] 124.5[2] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°-225°, [2]225°-044° [3]Oper 0700-2300 lcl time. **VOT:** 110.2. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§SONOMA COUNTY *IFR* 6 NW **FSS:** UKIAH (DL)
125 H50/14-32(2) (S-80, T-130, TT-220) BL4 S5 F4 U2 DT2
Remarks: Attended days.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600-2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU **FSS:** OAKLAND

§STOCKTON METROPOLITAN *IFR* 3S **FSS:** STOCKTON on fld
27 H86/11L-29R(4) (S-100, T-200, TT-400) BL6, 12 S5 F4 TP1 U2 DT2
Remarks: First 2000′ rnwy 29R clsd 1500–0200Z Mon-Fri. 1500′ apch lgt sys rnwy 29R.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I-SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§LAKE TAHOE 2SE **FSS:** SACRAMENTO (DL)
6263 H85/18-36(1) BL4, 5 S5 F4 JP1 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 36. Rnwy 36 threshold displaced 2040′.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR 113.2/LTA
Remarks: [1]Opers 0700–2300 lcl time

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

§TORRANCE MUNI *IFR* 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L-29R(2) (S-30, T-50, TT-80) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L-29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 118.1 124.0 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 127.2
Remarks: [1]Oper 0600–2200 lcl time. [2]045°-224°. [4]225–044°.

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

BUCKLEY (T) VOR 112.7/BKF **FSS:** DENVER

COLORADO SPRINGS
§PETERSON FIELD *IFR* 6 SE **FSS:** DENVER (LC 634–3127)
6172 H110/17-35(3) (S-100, T-200, TT-400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17–35. 1000′ overrun each end rnwy 17-35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I-COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] Ctc twr.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340–055° and 15 nmi 245–270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER
§STAPLETON INTL *IFR* 4 E **FSS:** DENVER on Fld
5331 H115/17-35(3) (S-120, T-200, TT-350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: Twr unable to determine whether acft on correct final apch to rnwys 8L–8R and 26L–26R. Rnwy 17–35 clsd every Mon and Thurs 1430–1630Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3
Radar Services: (BCN)
Denver App Con 119.3[1] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831

COLORADO—*Continued*

ILS 110.3 I–DEN Apch Brg 257° **LOM:** 362/DE
108.1 I–SPO Apch Brg 350°
VHF/DF available, contact tower.
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270–089°. [2]090–269°. **VOT:** 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC FSS: FARMINGTON

DURANGO (L) BVOR 108.2/DRO FSS: FARMINGTON

ENGLEWOOD RBn H–SAB 379●/EWD FSS: DENVER

GILL (L) BVORTAC 108.8/GIL FSS: DENVER

GRAND JUNCTION
§WALKER FIELD *IFR* 3NE **FSS:** GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12
S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I–GJT Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[2] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable below 5132′. [2]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC FSS: GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO FSS: LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC FSS: DENVER

KREMMLING (H) BVORTAC 113.8/RLG FSS: EAGLE

LAMAR (H) BVORTAC 116.9/LAA FSS: LA JUNTA

MEEKER (H) BVORTAC 115.2/EKR FSS: EAGLE

PETERSON (L) VORW 109.0/PEF FSS: DENVER

§PUEBLO MEML *IFR* 5E **FSS:** PUEBLO on Fld
4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F5
JP1 **RVV:** Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I–PUB Apch Brg 075° **LOM:** 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC FSS: AKRON

TOBE (L) BVORTAC 115.8/TBE FSS: TRINIDAD

TRINIDAD RBn SABH 329●/TAD FSS: TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI *IFR* 3SE
FSS: WINDSOR LOCKS (LC ED 5–6097)
9 H47 (11–29(3) (S–36.5, T–55.5, TT–) BL5,6 S5 F5 JP1, JP4
U2 DT2
Remarks: Apch to rnwys 16, 29 blkd by trees.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON **FSS:** PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI–3–3245)
Remarks: [1]Oper by State.

HARTFORD (L) BVORTAC 114.9/HFD **FSS:** WINDSOR LOCKS
RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD **FSS:** WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN **FSS:** WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW **FSS:** PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT **FSS:** WORCESTER

CONNECTICUT—*Continued*

WINDSOR LOCKS
§BRADLEY FIELD *IFR* 3W FSS: WINDSOR LOCKS on Fld.
173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10,14,15 S5
F5, JP4,5 U2 DT2 **VASI:** Rnwy 33
Remarks: Rnwy 6–24 A–Gear both ends.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I–BDL Apch Brg 058° **LOM:** 388/BD
Remarks: Glide slope rnwy 6 unusable below 373′.

DELAWARE

DOVER (T) VOR 108.4/DOV **FSS:** MILLVILLE
Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO **FSS:** MILLVILLE

WATERLOO (L) BVORTAC 112.6/ATR **FSS:** SALISBURY

WILMINGTON
§GREATER WILMINGTON *IFR* 4S **FSS:** MILLVILLE (LC 652–5419)
79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5
F4, JP1 U2 DT2 **RVR:** Rnwy 1.
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125 0 110.3T
ILS 110.3 I–ILG Apch Brg 014° BC unusable **LOM:** 248/IL
VHF/DF Ctc twr.
New Castle (L) BVORTAC 114.0/EWT 067° 0.5 nmi to fld.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 32[illegible]/GTN

WASHINGTON
§DULLES INTL *IFR* 21W **FSS:** WASHINGTON (DL)
313 H115/(1L–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15
S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R
Remarks: RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.4
Radar Services: (BCN)
App Con 119.2 124.1
Dep Con 125.55
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I–DLX Apch Brg 186°
109.3 I–DIA Apch Brg 006° **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

§WASHINGTON NATIONAL *IFR* 3S **FSS:** WASHINGTON on Fld
15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15
S5 F5,JP1 U2 DT2 **VASI:** Rnwy 15 **RVV:** Rnwys 18, 15
RVR: Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18
Remarks: Very limited parking. Caution turbulance apch ends rnwys 21, 33 and 36.
Tower 119.1 122.5R 118.3[5] **Gnd Con** 121.7
‡Clrnc Del 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[2] 134.1[3] 127.0 122.5R 128.8 109.9T
Dep Con 118.1[2] 126.55[3]
Tfc Info Ctc Ap Con on 119.3
PAR[4] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I–DCA Apch Brg 003° BC unusable **LOM:** 332/DC

DISTRICT OF COLUMBIA—*Continued*

VHF/DF Ctc twr.

Washington (L) VORTAC 111.0/DCA at fld.

Washington RBn H–SAB 332●/DC 001° 4.6 NM to fld.

Remarks: [1]West [2]East [3]Andrews Sector. Circling PAR avbl on 15 min notice durg VFR conditions. [4]Radar monitoring instrument apchs only at pilot's request. [5]Helicopter ctl. LOM is H-SAB. **VOT:** 108.2.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY **FSS:** MIAMI

CECIL (L) VORW 108.2/NCZ **FSS:** JACKSONVILLE

CRESTVIEW (H) BVORTAC 115.9/CEW **FSS:** CRESTVIEW

RBn HW 350/CEW

CROSS CITY (L) BVOR 112.0/CTY **FSS:** GAINESVILLE

§DAYTONA BEACH MUNI ***IFR*** 3SW **FSS:** ORLANDO (LC255–4767)

34 H57/6–24(3) (S–60, T–80, TT–) BL4,6,8A,9 S5 F5, JP1 U2

Remarks: Rgt tfc rnwy 6.

Tower 120.7 126.2 122.5R **Gnd Con** 121.9

App Con 123.9 122.5R 112.6T 109.7T

ILS[1] 109.7 I–DAB Apch Brg 065° **LOM:** 263/DA

(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.

Remarks: Gide slope unusable below 150′ MSL.

DESTIN RBn HW 201/DES **FSS:** CRESTVIEW

EGLIN (L) VOR 110.8/VPS **FSS:** CRESTVIEW

EGMONT KEY RBn HW 310/H

§FT. LAUDERDALE-HOLLYWOOD INTL ***IFR*** 3SW AOE **FSS:** MIAMI (LC 524–0233)

10 H74/9–27(3) (S–115, T–200, TT–400) BL4 S5 F5, JP1 U2

Remarks: Rnwy 9–27 thresholds displaced 600′ both ends 1045′ AGL twr 7NM SSW.

Fort Lauderdale Tower 119.3 122.5R 111.4T

Gnd Con 121.7

Radar Services: (BCN)

Miami App Con 123.9 119.7

Miami Dep Con 128.0 119.7

Ft Lauderdale (L) BVOR 111.4/FLL on fld.

Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY **FSS:** FORT MYERS

RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD **FSS:** TAMPA

GAINESVILLE (H) BVORTAC 116.2/GNV **FSS:** GAINESVILLE

GREENVILLE (L) BVOR 109.0/GEF **FSS:** TALLAHASSEE

HOLLYWOOD

§NORTH PERRY 5W **FSS:** MIAMI (LC 524–0233)

9 H31/4–22(4) (Max–16) BL5 S5 F4 U2

Remarks: Two way rdo required.

Tower[1] 121.3 122.4R

Remarks: [1]Opers 1200–0200Z.

HOMESTEAD (L) VOR 108.2/HST **FSS:** MIAMI

RBn MHW 221/HST

JACKSONVILLE

§IMESON ***IFR*** 5N **FSS:** JACKSONVILLE on Fld

52 H79/5–23(3) (S–62, T–110, TT–200) BL4,6,12 S5 F5, JP4 U2

RVV: Rnwy 5

Remarks: Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. Rnwy 18–36 open for dalgt VFR operns. 1500′ apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410/ E, rnwy 12 displaced 335′ W. Jet arresting gear rnwy 5–23.

FLORIDA—*Continued*

Jacksonville Tower: 118.3 126.2 122.5R 110.3T

Gnd Con 121.9

Radar Services: (BCN)

Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2

Tfc Info: Ctc App Con on 119.0 25 mi out.

ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452.

Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552

ILS[1] 110.3 I–JAX Apch Brg 045° BC unusable **LOM:** 221/JA

Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.

Jacksonville RBn H–SAB 344●/JAX 270° 1.4NM to fld.

VHF/DF Ctc twr.

Remarks: [1]Glide slope unusable below 150′. **VOT:** 111.0

§KEY WEST INTL ***IFR*** 2 E AOE **FSS:** KEY WEST on Fld

4 H48/9–27(1) (S–30, T–40, TT–) BL4 S3 F4

Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 10:00 PM to Key West FSS.

Tower[1] 119.5 122.5R **Gnd Con** 121.9

Navy Key West App Con 118.7 122.5R

VFR ADV Ctc Key West rdo 0300–1100Z

(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.

RBn SBH 332/EYW 066° 1.2NM to fld.

Remarks: [1]Oper 0600–2200 lcl time.

LA BELLE (L) BVOR 110.4/LBV **FSS:** FORT MYERS

§LAKE CITY MUNI 3 E **FSS:** GAINESVILLE

202 H68/10–28(4) (S–75, T–140, TT–250) *L S5 F4 U1

Tower[1] 126.2

Remarks: [1]Oper 1300–2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL **FSS:** TAMPA (LC 682–3258

MARATHON RBn HW 260/MTH **FSS:** KEY WEST

MARIANNA (L) BVOR 114.0/MAI **FSS:** DOTHAN

MELBOURNE

§JOHN F KENNEDY MEML ***IFR*** 2 NW **FSS:** MELBOURNE on Fld

32 H112/(9–27(3) (S–85, T–145, TT–270) BL4 S5 F4, JP5 U2

Remarks: 9603′ rnwy 9–27 available ngts, displaced threshold rnwy 27 1589′W

Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9

Radar Services:

Patrick App Con 118.4

Patrick Dep Con 118.4

Melbourne (L) BVOR 110.0/MLB on fld.

Melbourne RBn HW 257/MLB 087° 2.1NM to fld.

Remarks: [1]Oper 0600–2400 daily, VFR use only.

MIAMI

§MIAMI INTL ***IFR*** 8 NW AOE **FSS:** MIAMI on Fld

9 H105/9L–27R (4) (S–200, T–200 TT–400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L

Remarks: Fee. Clsd non engine acft.

Tower 118.3 120.5 125.0 126.2 122.4R **Gnd Con** 121.8

‡Clrnc Del 127.5

ATIS: 115.9

Radar Services: (BCN)

App Con 118.1[1] 128.0 123.9[2] 122.4R

Dep Con 128.0[2] 119.7

Tfc Info Ctc Twr 20 mi out or remain above 2500′.

ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509.

Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.

ILS 110.3 I–MFA Apch Brg 087° **LOM:**[4] 365/MF

109.5 I–MIA[3] Apch Brg 267° **LOM:** 248/MI

VHF/DF Ctc twr.

(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12

RBn H–SAB 365●/MF 087° 4.5NM to rnwy 9L.

FLORIDA—*Continued*

Remarks: [1]090°–269° [2]270°–089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]Glide slope rnwy 27 unusable below 175′ MSL. [4]LOM is H–SAB. **VOT:** 112.0

§OPA LOCKA *IFR* 10 NW **FSS:** MIAMI
9 H80/9L–27R(5) (S–96 T–155 TT–290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L–27R. 1045′ TV twr 5 NM NNE. JP–1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.
Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Miami App Con 120.5 118.1
Miami Dep Con 128.0 119.7
Remarks: [1]Oper 1100–0300Z.

§TAMIAMI 8 W **FSS:** MIAMI
10 H38/14 32 (3) BL4 S5 F4
Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.
Tower[3] 121.1 122.6R **Gnd Con** 121.7
Radar Services:
Miami Dep Con 128.0[1] 119.7[2]
Remarks: [1]270°–089° [2]090–269°. [3]Opers 1200–0400Z.

OCALA (L) BVORTAC 112.8/OCF **FSS:** GAINESVILLE

ORLANDO
§HERNDON *IFR* 3 E **FSS:** ORLANDO on Fld
113 H60/7–25(3) (S–90, T–160, TT–300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7
Remarks: NW–SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.
Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7
Clrnc Del 121.7
Radar Services:
Orlando App Con 119.4 124.8 122.5R 109.9T
Orlando Dep Con 121.1
Tfc Info Ctc App Con on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613.
Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.
ILS 109.9 I–ORL Apch Brg 067° **LOM:** 221/OR
(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK **FSS:** WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN **FSS:** TALLAHASSEE

§PENSACOLA MUNI *IFR* 3 NE **FSS:** PENSACOLA on Fld
118 H50/16–34(2) (S–100, T–180, TT–320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16
Remarks: Overnight tie-down fee.
Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 123.9[1] 134.1 122.7R 119.0[2]
Dep Con 119.0[2] 134.1 123.9[1]
Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN
RBn H–SAB 326●/PNS 343° 1.8NM to fld.
Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR **FSS:** MIAMI

ST AUGUSTINE
§FAIRCHILD-ST AUGUSTINE 3N **FSS:** JACKSONVILLE
10 H65/13–31(3) (S–30) BL4,6 S5 F5
Remarks: Rnwy 2–20 and 6–24 clsd to acft over 12,500 lbs when twr not in opern.
Tower[1] 126.2 123.1 122.5R
Remarks: [1]Oper 1230–2115Z Mon–Fri.

ST. PETERSBURG
WHITTED 2E **FSS:** TAMPA (DL)
7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2
Remarks: Rgt tfc rnwys 6, 36.

FLORIDA—*Continued*

Tower 120.4 122.4R **Gnd Con** 121.8
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T
Tampa Dep Con 126.5
Tfc Info: See Tampa Intl
Remarks: Opers 0600–2200.

§ST. PETERSBURG-CLEARWATER INTL *IFR* 8N
FSS: TAMPA (LC 446–1168)
10 H80/17–35 (3) (S–95, T–155, TT–200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17
Remarks: Rnwy 4–22 clsd to ngt operns UFN.
Tower 118.3 122.7R **Gnd Con** 121.9
Radar Services (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T **Tampa Dep Con** 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI
St Petersburg (L) BVORTAC 116.4/PIE at fld.
Remarks: [1]Glide slope unusable below 110′.

SANFORD NAS RBn SH 408/NRJ **FSS:** ORLANDO

§SARASOTA-BRADENTON *IFR* 3 N **FSS:** ST. PETERSBURG (DL)
24 H50/13–31(3) (S–62, T–110, TT–190) BL4,6 S5 F5, JP1 U2
Remarks: Rnwy 9–27 and all perimeter txwys clsd to acft in excess 12,500 lbs.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 108.4T
Tampa Dep Con 126.5
Sarasota (L) BVOR 108.4/SRQ at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUFLEY (L) BVOR 108.8/NUN **FSS:** PENSACOLA
RBn MH 293/NUN

§TALLAHASSEE MUNI *IFR* 4 SW **FSS:** TALLAHASSEE on Fld
81 H61/18–36(2) (S–80, T–150, TT–270) BL4,6,8A,9 S5 F4, JP4 U2
RVV: Rnwy 36
Tower 118.7 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
App Con 118.1 122.5R 117.5T 110.3T
Dep Con 118.1
ILS[1] 110.3 I–TLH Apch Brg 358° **LOM:** 379/TL
(H) BVORTAC 117.5/TLH
RBn H–SAB 379●/TL 358° 4.1NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 160′ MSL. LOM is H–SAB **VOT:** 111.0

§TAMPA INTL *IFR* 3 W AOE **FSS:** Tampa on fld
27 H87(18R–36L (S–60, T–175, TT–270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L
Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.
Tower 119.9 126.2 122.5R 110.3T **Gnd Con** 121.7
Radar Services (BCN)
App Con 119.5 125.3 122.5R 118.5 116.0T 116.4T 108.4T
Dep Con: 126.5
Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.
ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP
RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36
VHF/DF: ctc FSS
Remarks: **VOT:** 111.0

TAYLOR (L) BVORTAC 113.8/TAY **FSS:** VALDOSTA

TYNDALL (L) VOR 117.7/PAM **FSS:** TALLAHASSEE
RBn HW 227/AAN

VERO BEACH (H) BVORTAC 117.3/VRB **FSS:** VERO BEACH

FLORIDA—*Continued*

WEST PALM BEACH
§PALM BEACH INTL *IFR* 3 W AOE **FSS:** MIAMI (LC 832-5697)
19 H80/9-27(2) (S-85, T-400, TT-) BL4.6,8A,9 S5 F5 JP4
RVV: Rnwy 9
Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.
Tower 119.1 122.7R **Gnd Con** 121.9
App Con 118.0 122.7R 115.5T 109.3T
ILS[1] 109.3 I-PBI Apch Brg 093° **LOM:** 356/PB
Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.
Palm Beach RBn HW 356/PB 093° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 150′. LOM is HW.
VOT: 109.0.

GEORGIA

ALBANY (L) BVOR 112.9/ABY **FSS:** ALBANY

ALMA (H) BVORTAC 115.1/AMG **FSS:** ALMA

ATHENS (L) BVORTAC 109.6/AHN **FSS:** ANDERSON

ATLANTA
§ATLANTA MUNI *IFR* 7SSW **FSS:** ATLANTA
1024 H100(9L-27R(4) (S-100, T-170, TT-340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.
Remarks: Aprxly 2100′ of W end rnwy 9R-27L not visible from twr. TV towers 1042′ (2049′ MSL) 8.5 NM NE. 1076′ (2049′ MSL) 7.5 NM NE. 1100′ (2049′ MSL) 10 nmi NE. Commercial Fee only. [1]Avail for apch and roll out.
Tower 119.1 119.5 122.7R **Gnd Con** 121.9
‡Clnrc Del 121.6
ATIS: 111.8 111.0
Radar Services: (BCN)
App Con 127.7 (N of V18) 118.1 (S of V18) 109.9T 109.3T 110.5T
Dep Con 125.7 125.0
Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.
PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.
ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424.
Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.
ILS 109.9 I-ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I-AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I-ALR Apch Brg 089° **LOM:** 254/AL
(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.
RBn H-SAB 266●/ATL 270° 4.7NM to rnwy 27R.
Remarks: [1]Glide slope rnwy 33 unusable below 1085′ MSL. [3]Radar monitoring of instrument apchs only at pilot's request.
VOT: 111.0

§DEKALB-PEACHTREE *IFR* 8 NE **FSS:** ATLANTA
1002 H40/16-34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2
Remarks: TV towers 1042 (2049′ MSL) 7.5NM SSW; 1076′ (2049′ MSL) 8NM SSW; 1100′ (2049′ MSL) 5NM SSW. Two unlgtd 8′ bldgs 480 NNE intsxn rnwy 16-34 and 9-27, 160′ E of rnwy 16-34.
Peachtree Tower[1] 120.9 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
Remarks: [1]Oper 1200-0400Z.

§FULTON COUNTY *IFR* 6W **FSS:** ATLANTA on Fld
839 H52/8-26(2) (S50, T-77, TT-) BL4, 11 S5 F5
REIL: Rnwy 8.
Remarks: Towers 1042′ (2049′ MSL) 9 NM E. 1076′ (2049′ MSL) 8NM E. 110′ (2049′ MSL) 9.5 NM E.
Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
VHF/DF Ctc FSS.

GEORGIA—*Continued*

(L) BVOR 108.2/FTY on fld.
RBn MH 245/FTY on fld
Remarks: [1]Oper 1200-0400Z.

AUGUSTA
§BUSH FIELD *IFR* 6S **FSS:** AUGUSTA on Fld
145 H80-17-35(2) (S-150, T-200, TT-360) BL4,6,8A,9 S5 F5, JP1, JP4 U2
Remarks: 1506′ (1882′ MSL) twr 7NM ENE and 1292′ (1677′ MSL) twr 7NM NE.
Augusta Tower 118.7 126.2 122.5R 110.5T
Gnd Con 121.9
Augusta App Con 125.4 122.5R 113.9T 110.5T
ILS[1] 110.5 I-AGS Apch Brg 349° BC unusable **LOM:** 233/AG
Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.
Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 245′ MSL.

BLAKELY RBn MHW 365/BLG **FSS:** DOTHAN

BRUNSWICK (L) BVOR 109.8/SSI **FSS:** BRUNSWICK

COLUMBUS
§MUSCOGEE COUNTY *IFR* 4NE **FSS:** ATLANTA
397 H50/5-23(2) (S-60, T-80, TT) BL4,6 S5 F5, JP5 U2
Remarks: Rnwy 12-30 closed to ngt lndgs.
Tower 120.1 122.5R **Gnd Con** 121.9
Columbus App Con 125.3 122.5R 117.1T 110.3T 335T
Columbus Dep Con 125.3
ILS[1] 110.3 I-CSG Apch Brg 053° BC unusable **LOM:** 355/CS
Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.
Remarks: [1]Glide slope unusable below 697′.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN **FSS:** MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA **FSS:** BRUNSWICK

HARRIS (L) BVOR 110.4/HRS **FSS:** KNOXVILLE, TENN.

LA GRANGE (L) BVOR 109.4/LGC **FSS:** ANNISTON

LAWSON (L) VOR 111.4/LSF
RBn SH 335/AWS
Remarks: VOR inoperative UFN.

LIBERTY RBn MHW 263/HIN **FSS:** SAVANNAH

LOST MOUNTAIN RBn HW 314/LSM

§MACON MUNI *IFR* 9S **FSS:** MACON on Fld
354 H50/5-23(2) (S-30, T-50, TT-85) BL4,6,8A,9 S3 F5, JP1 U2 **RVV:** Rnwy 5
Tower[2] 118.3 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T
Dep Con 124.8
ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.
ILS[1] 109.5 1-MCN Apch Brg 047° BC unusable **LOM:** 290/MC
(H) BVORTAC 114.2/MCN at fld.
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 450′ MSL. [2]Opers 0700-2300 lcl time.

MOULTRIE (L) BVOR 108.8/MGR **FSS:** VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR **FSS:** ATLANTA

REX (L) BVOR-DME 111.8/REG **FSS:** ATLANTA

ROME (L) BVOR 115.4/RMG **FSS:** ATLANTA
RBn MHW 388/RMG

GEORGIA—*Continued*

SAVANNAH

§TRAVIS FIELD ***IFR*** 7NW **FSS:** SAVANNAH on Fld
50 H90/9–27(3) (S40–T60–TT–110) BL4,6,8A,9 S5
F4, JP5 **RVR:** Rnwy 9
Remarks: Rnwy 27 threshold displaced 400′. Rnwy 5–23 clsd all acft in excess 12,500 lbs GWT. Jet barrier and arresting gear rnwy 9–27
Savannah Tower 119.1 126.2 122.5R 110.1T
Gnd Con 121.9
Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7
ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: **VOT:** 111.0

TOCCOA (L) BVOR 109.8/TOC **FSS:** ANDERSON

VALDOSTA (L) BVOR 110.4/VLD **FSS:** VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA **FSS:** MACON

WAYCROSS (L) BVORTAC 110.2/AYS **FSS:** ALMA

IDAHO

§BOISE AIR TERMINAL ***IFR*** 3S **FSS:** BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9
S5 F5, JP1,4 U2 **RVV:** Rnwy 28R **RVR:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R. Jet barriers and arresting gear Rnwy 10R–28L plus jet barriers with donut supported cable aprxly 1000′ in from threshold lgts on rnwy 10R–28L.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI **FSS:** BURLEY
RBn SBH 272/BYI

COEUR D' ALENE RBn HW 347/COE **FSS:** SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS **FSS:** IDAHO FALLS

§IDAHO FALLS
FANNING FIELD ***IFR*** 2NW **FSS:** IDAHO FALLS on Fld
4739 H75/2–20(2) (S–30, T–90, TT–150) BL5,6,11 S5 F4 JP5
REIL: Rnwy 20.
Remarks: Rnwy 20 threshold displaced 930′ SW. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 655′ S. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350●/IDA 199° 2.2NM to rnwy 20.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

LEWISTON (L) BVOR 108.2/LWS **FSS:** WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD **FSS:** MALAD CITY

McCALL (H) BVORTAC 116.2/MYL **FSS:** BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP **FSS:** MULLAN PASS

§POCATELLO MUNI ***IFR*** 7NW **FSS:** POCATELLO on Fld
4448 H82/3–21(3) (S30, T80, TT130) BL5,6,9,12 S5 F4 JP1
U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF **FSS:** BURLEY

ILLINOIS

§ALTON CIVIC MEML 5E **IFR** **FSS:** ST. LOUIS
541 H51(2) BL5 S5 F4 JP1 (LC HO 5–4112)
Remarks: P-line NW. Hwy N
Tower[1] 121.1 122.5R **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
St. Louis Dep Con 119.9
VFR ADV: Ctc St. Louis, Lambert-St. Louis
RBn MHW 263/ALN
Remarks: [1]Oper 0700–2300 [2]Southeast Arrivals [3]Northwest arrivals [4]Freq. 121.5 to be decmsnd Aug 31.

BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB **FSS:** VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI **FSS:** PEORIA

BRADFORD (H) BVORTAC 114.7/BDF **FSS:** PEORIA

CAHOKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

CAPITAL (H) BVORTAC 112.7/CAP **FSS:** VANDALIA

CARBONDALE RBn BMH 248/MDH **FSS:** CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL **FSS:** VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD ***IFR*** 4SSW
FSS: CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4 U2 DT2
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN **FSS:** LAFAYETTE
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY ***IFR*** 3NW **FSS:** JOLIET (DL)
758 H40/10–28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 DT2
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy 5–23 clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 0600–2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E **FSS:** JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1,500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear acft. (3) 25 knots or more to all acft. Fld clsd daily to all opers btn hrs 2400 and 0600 lcl time due, no safety or svcs facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs.
Meigs Tower[1] 121.3 122.5R **Gnd Con** 121.9
Chicago Dep Con: 119.5
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY ***IFR*** 9SW AOE **FSS:** JOLIET (DL)
619 H65/13R–31L(6) (S–130, T–200, TT–400) BL2,4,6,8A,9,11
S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Customs svc avbl 0800–1700 cst Mon–Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 119.2 126.2 122.7R 123.7 109.9T 109.5T
Gnd Con 121.7

ILLINOIS—*Continued*

Radar Services:
Chicago App Con 119.5
Chicago Dep Con[1] 119.5
Tfc Inf Ctc Chicago App Con on 119.5.
VFR ADV: Ctc twr on 119.2
PAR[2] Rnwy 13R Ceiling 300 Vsby 3/4 mi Min alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I–MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I–MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H–SAB 350●/MDW
VHF/DF Ctc twr.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immediate area of Midway on 119.2 [2]PAR unusable from MM to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. LOM is Kedzie MHW. **VOT:** 111.0.

§CHICAGO-O'HARE INTL *IFR* 14NW **FSS:** JOLIET (DL)
667 H116/14R–32L(5) (S–120, T–200, TT–375) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **RVR:** 14R, 14L, 32L
RVV: Rnwys 4, 9, 27, 32R **VASI:** Rnwy 22.
Remarks: Motel sign 1 3/4 mi from apch end of rnwy 32L maybe mistaken for apch lgts First 1000′ rnwy 14L clsd.
O'Hare Tower 118.1 126.2 122.6R 120.7 113.9T 110.1T 109.7T
‡Clrnc Del 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4[1] 125.0[2]
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
VFR ADV: 127.4
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby 1/2 mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby 3/4 mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I–ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I–OHA Apch Brg 138° **LOM:** 368/OH
110.5 I–IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I–RVG Apch Brg 318° **LOM:** 257/RV
111.1 I–IDN Apch Brg 318° **LOM** 385/ID
(L) VORTAC 113.9/ORD on fld.
VHF/DF Ctc twr.
Remarks: [1]180°–359° [2]360°–179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE

DECATUR MUNI *IFR* 4E **FSS:** VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 TPI U–2
Remarks: REIL rnwy 18, 36
Tower: 118.9 122.5R **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700–2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN **FSS:** JOLIET

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

ILLINOIS—*Continued*

GLENVIEW RBn MH 269/NBU **FSS:** JOLIET

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY *IFR* 3S **FSS:** BURLINGTON (DL)
590 H55/9–27(3) (S–56, T–82, TT–140) BL4,6,8A,9 S5 F5, JP4 U2 DT2 **RVV:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 121.7[1] 224T
ILS 110.3 I–MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.
Remarks: [1]For IFR acft operg Davenport Mun Arpt.

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE

PEORIA
§GREATER PEORIA *IFR* 4W **FSS:** JOLIET
659 H70/12–30(4) (S–65, T–90, TT–170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. Arresting gear rnwy 12–30. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 I–PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD *IFR* 9E **FSS:** QUINCY on Fld
769 H54/3–21(3) (S65, T–90, TT–170) BL4,6 S5 F4 JP1 DT2
ILS[1] 110.1 I–UIN Apch Brg 035° **LOM:** 293/UI
Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.
Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: [1]Glide slope unusable below 950′ MSL. LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS **FSS:** CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD *IFR* 4S **FSS:** ROCKFORD on Fld
735 H60/18–36(3) (S–75, T–100, TT–) BL4,6,8A,9 S5 F5, JP1 DT2 **RVV:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I–RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV **FSS:** ST. LOUIS

SAMSVILLE (L) BVOR 116.6/SAM **FSS:** EVANSVILLE

SPRINGFIELD
§CAPITAL *IFR* 3NW **FSS:** VANDALIA (DL)
593 H70/4–22(3) (S–85, T–120, TT–210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVV:** Rnwy 4 **REIL:** Rnwy 22.

ILLINOIS—*Continued*

Remarks: Jet barrier rnwy 4–22.

Tower 121.3 122.5R **Gnd Con** 121.9

VFR ADV Ctc App Con on 118.6 aprx 25NM out

Springfield App Con 118.6 121.3 112.7T 109.5T 379T

ILS 109.5 I–SPI Apch Brg 038° **LOM:** 379/SP

Springfield RBn MHW 379/SP

Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY **FSS:** ST. LOUIS

VANDALIA (L) BVOR 114.3/VLA **FSS:** VANDALIA

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID **FSS:** INDIANAPOLIS

BAKALAR RBn HW 410/BAK **FSS:** INDIANAPOLIS

RBn MHW 201/BXR

BLOOMINGTON (L) BVOR 110.2/BMG **FSS:** INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL **FSS:** INDIANAPOLIS

RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU **FSS:** INDIANAPOLIS

CONNERSVILLE RBn MHW 275/CEV

Remarks: Owned and operd by city.

EVANSVILLE

§DRESS MEMORIAL *IFR* 3N **FSS:** TERRE HAUTE (DL)

389 H60/3–21(3) (S–70, T–90, TT–) BL4.6 S5 F5 TPI U2 DT2

Remarks: P-line apch rnwy 21. Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below. First 700′ rnwy 21 clsd dalgt operns and first 250′ clsd ngt operns UFN.

Evansville Tower 118.7 122.5R **Gnd Con** 121.9

Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T

VFR ADV: Ctc App Con on 119.4

ILS 109.9 I–EVV Apch Brg 215° BC unusable **LOM:** 219/EV

Evansville (H) VORTAC 113.3/EVV 12.4NM to fld.

FT. WAYNE

§BAER FIELD *IFR* 6SSW **FSS:** FORT WAYNE on Fld.

801 H80/4–22(3) (S–90, T–120, TT–) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 22

Remarks: P-line SE. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9. Jet barrier rnwy 4–22.

Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6

Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.

ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.

ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW

Fort Wayne (H) BVORTAC 117.8/FWA on fld.

Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31

Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH **FSS:** SOUTH BEND

HUNTINGBURG RBn MHW 239/HNB

Remarks: To be comsnd in Common Sys Aug 18.

§INDIANAPOLIS MUNI (Weir Cook) *IFR* 7SW **FSS:** INDIANAPOLIS on Fld

797 H100/4–22(2) (S–100, T–150, TT–270) BL6,8A,9,10,11 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 **RVR:** Rnwy 4, 31

INDIANA—*Continued*

Remarks: Fee multi-eng commercial acft.

Tower 120.9 126.2 122.5R 116.3T

‡Clrnc Del 125.7 **Gnd Con** 121.9

ATIS 110.5

Radar Services:

App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T **Dep Con** 121.1

Tfc Info Cct App Con on 118.5 or 118.1

PAR[3] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997

ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197

ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN

110.5 I–COA Apch Brg 313° **LOM:** 232/CO

(H) BVORTAC 116.3/IND 142° 6.1NM to fld.

RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4

VHF/DF Ctc FSS.

Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI **FSS:** SOUTH BEND

KOKOMO (L) BVOR 109.8/OKK **FSS:** INDIANAPOLIS

RBn MHW 227/OKK

LAFAYETTE

§PURDUE UNIVERSITY *IFR* 1SW **FSS:** LAFAYETTE on fld

605 H54/10–28(2) (S35 T53 TT80) BL5 S3 F5 JP1

Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.

ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA

Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU **FSS:** TERRE HAUTE

MARION (T) BVOR 108.6/MZZ **FSS:** INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI **FSS:** FORT WAYNE

MUNCIE

§DELAWARE COUNTY (Johnson Fld) *IFR* 3N **FSS:** INDIANAPOLIS (DL)

937 H51/14–32(2) (S–70, T–90, TT–150) BL4 S5 F4 JP1 U2

Remarks: P-line in NW apch 3480′ off end rnwy 14.

Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9

Muncie (L) BVOR 113.7/MIE

Remarks: [1]Oper 1200–0400Z.

NABB (L) BVOR 113.5/ABB **FSS:** LOUISVILLE

RICHMOND (L) BVOR 110.6/RID **FSS:** DAYTON

RBn MHW 385/RID

SCOTLAND (L) BVORTAC 111.2/SCJ **FSS:** TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB **FSS:** INDIANAPOLIS

SOUTH BEND

§ST. JOSEPH COUNTY *IFR* 3NW **FSS:** SOUTH BEND on Fld

785 H60/9–27(4) (S–110, T–145, TT–) BL4,6,8A,9 S4 F5, JP1 U2 **RVV:** Rnwy 27

Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.

South Bend Tower 118.9 122.5R 115.4T 109.3T

Gnd Con 121.9

South Bend App Con 121.0 122.5R 115.4T 109.3T

VFR ADV: Ctc App Con on 121.0

ILS 109.3 I–SBN Apch Brg 269° **LOM:** 341/SB

South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.

VHF/DF Ctc FSS.

TERRE HAUTE

§HULMAN FIELD *IFR* 5E **FSS:** TERRE HAUTE on Fld

585 H90/5–23(3) (S–100, T–150, TT–270) BL4,6 S3 F4, JP1 U2

Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18–36 clsd to acft over 25,000 lbs. Jet barrier rnwy 5–23.

INDIANA—*Continued*

Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 122.5R 118.3
VFR ADV Ctc App Con on 123.8
ILS 109.7 I-HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
VHF/DF Ctc FSS.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT FSS: LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK FSS: FT. WAYNE

IOWA

AMES RBn MHW 275/AMW **FSS:** DES MOINES
Remarks: Operd by city.

ATLANTIC RBn MHW 365/AIO **FSS:** OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL **FSS:** BURLINGTON

§CEDAR RAPIDS MUNI *IFR* 5SSW **FSS:** CEDAR RAPIDS on Fld
863 H70/8-26(2) (S-100, T-135, TT-) BL4,6,8A,9,11 S-5
F4, TP-1 -JP1 U2 **REIL** Rnwy 26
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 119.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I-CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBN MHW 375/CCY **FSS:** MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN **FSS:** BURLINGTON

§DES MOINES MUNI *IFR* 3SW **FSS:** DES MOINES on Fld
957 H90/12-30(3) (S-100, T-180, TT-350) BL4,6,8A,9,11 S-5
F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17-35 clsd to acft over 25,000 lbs.
DT Memorial Day—Labor Day.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi
Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I-DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ **FSS:** CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD **FSS:** MASON CITY

IOWA CITY (L) BVORTAC 111.0/IOW **FSS:** CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW **FSS:** DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK **FSS:** BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN **FSS:** DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW **FSS:** MASON CITY

NEOLA (L) BVORTAC 117.1/EOL **FSS:** OMAHA

NEWTON (L) BVOR 112.5/TNU **FSS:** DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM **FSS:** OTTUMWA

IOWA—*Continued*

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

§SIOUX CITY MUNI *IFR* 6S **FSS:** SIOUX CITY
1097 H90/13-31(3) (Max 2.25) BL4,6,8A,9,11 S-5
F5, JP-1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 13
Remarks: First 1500′ rnwy 22 not visible to tower. Arresting gear rnwy 13-31.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I-SUX Apch Brg 307° **LOM:** 414/SU
VHF/DF ctc tower
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
Remarks: [1]LOM is MHW.

SPENCER RBn MHW 257/SPW

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

§WATERLOO MUNI *IFR* 4NW **FSS:** WATERLOO on Fld
870 H54/12-30(3) (S-100, T-180, TT-305) BL4,8A,9 S-5
F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
App Con 125.8 122.5R 109.9T 108.2T
VFR ADV Ctc App Con on 125.8
ILS[1] 109.9 I-ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN **FSS:** LACROSSE

KANSAS

ANTHONY (L) BVOR 112.9/ANY **FSS:** WICHITA

CHANUTE (L) BVOR 109.2/CNU **FSS:** CHANUTE

DODGE CITY (L)BVOR 108.2/DDC **FSS:** DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP **FSS:** EMPORIA

FORT RILEY (L) VORW 109.4/FRI **FSS:** SALINA
RBn MHW 317/FRI

GARDEN CITY (H) BVORTAC 113.3/GCK **FSS:** GARDEN CITY
RBn H-SAB 257 /GCK

GOODLAND (L) BVORTAC 115.1/GLD **FSS:** GOODLAND

HILL CITY (H) BVORTAC 113.7/HLC **FSS:** HILL CITY

§HUTCHINSON MUNI *IFR* 3E **FSS:** WICHITA (DL)
1542 H70/13-31(3) (S-50, T-65, TT-103) BL4,6,8A,9 S5 F4 JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Rnwy 31 threshold displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 125.5 122.5R 118.5 116.8T
VFR ADV Ctc App Con on 125.5
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP **FSS:** CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE **FSS:** KANSAS CITY
746 H61/17-35(4) (S-30, T-50, TT-85) BL6 S5 F-5, JP-1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys. Rnwy 17-35 only rnwy avbl ngts.
Tower[3] 119.1 126.2 122.5R **Gnd Con** 121.7

KANSAS—*Continued*

Radar Services:
Kansas City App Con 126.2 122.'7R 121.1[1] 118.9[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Opers 0600–2200 daily, during hrs twr not in 2200–0600 tfc advisories will be furnished by Kansas City twr on 119.1. Freq 121.5 to be decmsnd Aug 31.

LIBERAL (H) BVOR 112.3/LBL **FSS:** GARDEN CITY
Remarks: To be BVORTAC Oct 7.

MANHATTAN (T) BVOR 110.2/MHK **FSS:** SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO **FSS:** SALINA

OSWEGO (L) BVOR 117.6/OSW **FSS:** JOPLIN

OTTAWA (L) VORW 111.6/TOE **FSS:** TOPEKA

PRATT RBn HW 356/PTT **FSS:** DODGE CITY

RUSSELL (L) BVOR 114.5/RSL **FSS:** RUSSELL

SALINA (H) BVORTAC 115.3/SLN **FSS:** SALINA

TOPEKA
§PHILIP BILLARD MUNI ***IFR*** 3NE **FSS:** TOPEKA on Fld
880 H51/13–31(3) (S–70, T–100, TT–175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
ILS[1] 109.5 I–TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

WICHITA
§BEECH ***IFR*** 5E **FSS:** WICHITA (DL)
1387 H50/18–36(3) F4
Remarks: P-lines N, S.
Tower[1] 119.9 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Operns 1400–2300Z Mon-Fri. Sat. 1300–1730Z. Clsd Sun and holidays.

§WICHITA MUNI ***IFR*** 5SW **FSS:** WICHITA on Fld
1332 H73/1–19(2) (S–100, T–188, TT–350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr 9½M NNW.
Tower 119.5 122.5R 110.3T **Gnd Con** 121.9
ATIS[1] 110.3
Radar Services: (BCN)
Wichita App Con 120.1 120.6 134.1 125.7 122.7R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I–ICT Apch Brg 011° **LOM:** [2]219/IC
(H) BVORTAC 113.8/ICT 162° 4.3NM to rnwy 14.
RBn SABH[3] 332/ICT
Remarks: [1]Oper 0700–2100 lcl time. [2]To be decmsnd Aug 19. [3]To be H–SAB/LOM Aug 19.

KENTUCKY

ASHLAND RBn MHW 385/AKY **FSS:** HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG **FSS:** BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP **FSS:** BOWLING GREEN
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC **FSS:** LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT **FSS:** BOWLING GREEN

FALMOUTH (L) BVOR 109.0/FLM **FSS:** CINCINNATI

FORT KNOX (T) VOR 109.6/FTK **FSS:** LOUISVILLE
RBn MH 396/FTK

LEXINGTON
§BLUE GRASS FIELD ***IFR*** 5W **FSS:** LEXINGTON on Fld
978 H55/4–22(3) (S–95, T–128, TT–284) BL4,6,8A,9 S5 F5, JP–5 U2 **RVV:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.
Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd Con 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I–LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3NM to fld
Lexington RBn MHW 242/LE 042° 3.5NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ **FSS:** LONDON

LOUISVILLE
§BOWMAN FIELD ***IFR*** 5SE **FSS:** LOUISVILLE on Fld
549 H43/6–24(3) (Max 30) BL4,11 S–5 F–4, JP–4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

§STANDIFORD FIELD ***IFR*** 4S **FSS:** LOUISVILLE (DL)
497 H78/1–19(3) (S-60, T–90, TT–200) BL4,6,8A,9,14,15 S–4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1
Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7
Radar Services:
App Con 124.5 126.2 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I–SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I–LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF Ctc twr.
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS **FSS:** LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB **FSS:** HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO **FSS:** LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB **FSS:** EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK **FSS:** PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK **FSS:** HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG **FSS:** LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX **FSS:** ALEXANDRIA
RBn HW 251/AEX

LOUISIANA—*Continued*

BARKSDALE (L) VOR 114.8/BAD **FSS:** SHREVEPORT
RBn HW 379/BAD

BATON ROUGE
§**RYAN** ***IFR*** 4 N **FSS:** BATON ROUGE on Fld
70 H60/4–22 (3) (S–137, T–175, TT–340) BL4, 6, 11 S5
F4, JP5 U2 **REIL:** Rnwy 13
Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 120.3 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW
Tower 118.3 122.5R **Gnd Con** 121.9
Baton Rouge App Con 120.3 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT
Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (T) BVOR 108.8/ESF **FSS:** ALEXANDRIA

GRAND ISLE (H) BVORTAC 113.5/GNI **FSS:** NEW ORLEANS
RBn HH–SAB 236●/GNI

HARVEY (L) BVORTAC 112.4/HRV **FSS:** NEW ORLEANS

§**LAFAYETTE MUNI** ***IFR*** 2 SE **FSS:** LAFAYETTE on Fld
42 H51/1–19(2) (S–29, T–47, TT–78) BL4, 8A, 9, 11 S5
F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1
Tower 118.5 122.5R **Gnd Con** 121.7
Clrnc Del 121.7
App Con 121.1 122.5R 118.5
ILS 109.5 I–LFT Apch Brg 193° **LOM:** 257/LF
(L)BVORTAC 110.8/LFT 344° 3.0 NM to fld.
RBn BMH 375/LFT at fld.

§**LAKE CHARLES MUNI** ***IFR*** 3 S **FSS:** LAKE CHARLES on Fld
16 H65/15–33(2) (S–137, T–165, TT–350) BL4,5,6,8A, 9 S5
F4, JP4 **RVV:** Rnwy 15
Remarks: Rgt tfc rnwys 15 and 22.
Tower 120.7 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 113.4T 109.1T
ILS 109.1 I–LCH Apch Brg 148° **LOM:** 353/LC
(H)BVORTAC 113.4/LCH 252° 6.3 NM to fld.
RBn BH 242/LCH

§**MONROE** ***IFR*** 3 E **FSS:** MONROE on Fld
79 H50/4–22(3) (S–50, T–75, TT–135) BL4,6,8,9 S5
F4, JP4 U2
Remarks: Apch to runwys 17–35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 119.1 122.5R
ILS[1] 109.5 I–MLU Apch Brg 039° **LOM:** 219/ML
(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.
Remarks: [1]Glide slope unusable below 320′ MSL.

NEW ORLEANS
§**NEW ORLEANS-LAKEFRONT** ***IFR*** 4 NE **FSS:** NEW ORLEANS on Fld
10 H57/17–35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2
Remarks: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 290′ N. 4424′ avbl lndg rnwy 35. 4186′ avbl lndg rnwy 17. No ngt operns rnwy 8–26. 1046′ (1049′ MSL) TV twr 8 NM S. 1049′ MSL) TV twr 7 NM SE.
Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7
Radar Services:
New Orleans App Con 125.5 122.7R 118.1
New Orleans Dep Con 120.4

§**NEW ORLEANS INTL-MOISANT FLD** ***IFR*** 10 W
FSS: NEW ORLEANS (DL)
3 H92/10–28(3) (S-180, T-225, TT–425) BL4,6,8A,9,11,14,15
S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10
Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300-1700Z Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28 threshold displaced 720′ SW. Usable length rnwy 28—8507′; rnwy 10–9227′. 720′ E of rnwy 28 threshold usable tkof only with approval ctl twr.
Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9
Radar Services:
New Orleans App Con [1]125.5 122.7R 118.1 109.9T
New Orleans Dep Con 120.6
Tfc Info Ctc App Con on 125.5, for other arpts in or transversing the area ctc App Con on 118.1
ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.
Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.
Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.
ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS
New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.
New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 10.
VHF/DF Ctc twr.
Remarks: [1]Acft transitioning New Orleans NAS MCC freq 126.0 during above 5000′; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

SHREVEPORT
§**GREATER SHREVEPORT** ***IFR*** 4 SW **FSS:** SHREVEPORT on Fld
257 H73/13–31(2) (S–83, T–120, TT–201) BL4, 6, 8A, 9, F4
RVV: Rnwy 13
Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
Tfc Info Ctc App Con on 118.5
ILS 110.3 I–SHV Apch Brg 136X **LOM:** 230/SH
Shreveport RBn H–SAB 230●/SH 136° 3.6 NM to rnwy 14.
Remarks: LOM is H-SAB

§**SHREVEPORT DOWNTOWN** ***IFR*** 2 N **FSS:** SHREVEPORT (DL)
179 H45/14–32(3) (S30) BL4 S5 F4
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
(T)VOR 108.6/DTN at fld.
Shreveport (H) BVORTAC 117.4/SHV 159° 13.9 NM to fld.

TIBBY (L) BVORTAC 112.0/TBD **FSS:** NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA **FSS:** LAFAYETTE

MAINE

AUGUSTA (L)BVORTAC 111.4/AUG **FSS:** AUGUSTA
RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR **FSS:** OLD TOWN
Rng SBRAZ[1] 239/BW
Remarks: [1]Reliable reception distance 65 NM.

BAR HARBOR RBn MHW 320/BHB **FSS:** OLD TOWN

BRUNSWICK (L)VOR 116.2/NHZ **FSS:** AUGUSTA
Rng MRLZ[1] 368/NZ
Remarks: [1]Reliable reception distance 50 NM.

HOULTON (L)BVOR 108.2/HUL **FSS:** HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE **FSS:** PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT **FSS:** MILLINOCKET
RBn H–SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU
Remarks: Owned and operd by Airport Commission.

§**PORTLAND MUNI** ***IFR*** 2W **FSS:** PORTLAND on Fld
66 H50/11–29(2) (S–94, T–116, TT–) BL 5, 6, 8A, 9, 10 S5 F5,
JP1 U2 DT2 **VASI:** Rnwy 29 **RVV:** Rnwy 11

MAINE—*Continued*

Remarks: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27′ lctd at the end of rnwy and 800′ rgt cntrline. Lesser penetrations lctd 250′–430′ from end of rnwy and 720′–890′ left cntrline. 1890′–2180′ from end of rnwy and 900′–1090′ left cntrline.
Tower 120.9 122.5R 109.9T **Gnd Con** 121.9
App Con 120.9
ILS 109.9 I–PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI **FSS:** HOULTON

PRINCETON (L)BVOR 114.3/PNN **FSS:** HOULTON

ROCKLAND RBn MHW 353/RKD **FSS:** AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR **FSS:** HOULTON
Remarks: Reliable reception distance 40 NM.

WATERVILLE RBn MHW 375/AVI **FSS:** AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG **FSS:** WASHINGTON

ANDREWS (L)VORTAC 113.1/ADW

BALTIMORE
§FRIENDSHIP INTL *IFR* 8 S **FSS:** WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–100, T–220, TT–500) BL6, 8A, 9, 10, 11 S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10 **REIL** rnwy 4, 22
Remarks: For Customs use gates A–14 and A–3. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turboprop due noise complaints.
Tower 118.7 122.7R 109.7T **Gnd Con** 121.9
Radar Services:
Baltimore App Con 119.7 125.9^2
Baltimore Dep Con 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.
ILS^3 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA
Baltimore (L) BVORTAC 113.8/BAL on fld.
VHF/DF Ctc twr.
Remarks: ^{1}101°–281° ^{2}282°–100° ^{3}Glide slope unusable from 400′ inside MM to touchdown. **VOT:** 108.2.

CUMBERLAND RBn MHW 317/CBE **FSS:** MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK **FSS:** MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI **FSS:** WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV **FSS:** MORGANTOWN

HAGERSTOWN (L)BVOR 109.8/HGR **FSS:** MARTINSBURG

NOTTINGHAM (L)BVORTAC 116.0/OTT **FSS:** WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT **FSS:** SALISBURY

POOLESVILLE RBn MHW 280/PLV **FSS:** WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY **FSS:** SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL **FSS:** SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI **FSS:** WASHINGTON

MASSACHUSETTS

BEDFORD
§LAURENCE G HANSCOM FLD *IFR* 1 S **FSS:** BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11 S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29 **REIL:** Rnwys 23, 29 **RVV:** Rnwy 11
Remarks: 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. Jet barriers and arresting gear rnwy 11–29. FEE for commercial acft over 5000′ lbs.
Tower 118.5 122.5R **Gnd Con** 121.7
Radar Services:
Boston App Con 124.4
ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE
Bedford (L)VOR 116.0/BED on fld.
Bedford RBn HW 512/BE 112° 4.0 NM to fld.
VHF/DF Ctc twr.
Remarks: LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF **FSS:** BOSTON

BOSTON
§LOGAN INTL *IFR* 1 E **FSS:** BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A^1, 9^2, 10 S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L **RVV:** Rnwy 22L
Remarks: FEE. Lndg threshold rnwy 4R displaced 2507′ to NE, 10,000′ avbl except lndg length toward NE restricted to 7493′ during IFR conditions and hrs of darkness. Rnwy 4L–22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. ^{1}Non-standard cntrline apch lgt sys. ^{2}Sequence flashers extend only 1200′.
Boston Tower 118.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7
Radar Services: (BCN)
Boston App Con ^{2}120.6 ^{1}126.5 126.2 124.4 122.5R 110.3T 382T
Boston Dep Con 119.1 124.4
PAR^4 Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.
ILS 110.3 I–BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I–LIP^3 Apch Brg 330° BC unusable **LOM:** 346/LI
Boston (H)VORTAC 112.7/BOS on fld.
Boston RBn H–SAB , 382●/BOS 234° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: ^{1}215-319° ^{2}320°-214° ^{3}Glide slope unusable below 219′ MSL. ^{4}Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR **FSS:** WINDSOR LOCKS

DEVENS RBn MHW 352/AVE **FSS:** BOSTON

FALL RIVER RBn MHW 395/FLR **FSS:** NANTUCKET

FITCHBURG RBn MHW 206/FIT **FSS:** BOSTON

GARDNER (L)BVORTAC 110.6/GDM **FSS:** WORCESTER

HYANNIS
§BARNSTABLE MUNI *IFR* 1 N **FSS:** NANTUCKET (DL)
52 H55/6–24(2) (S–63, T–110, TT–) BL5, 6, 8A, 9, 11 S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6
Remarks: Poles SE, SW. Rnwy 11–29 usable Oct 15–Apr 30 VFR days & by pilot req only.
Hyannis Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 127.7 134.1 116.8T
Otis Dep Con 127.7
ILS^1 110.5 I–HYA Apch Brg 245° BC unusable **LOM:** 342/HY
Hyannis (L)BVORTAC 108.6HYA 241° 3.2 NM to rnwy 24.
Remarks: ^{1}Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM **FSS:** BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY **FSS:** NANTUCKET

MASSACHUSETTS—*Continued*

§NANTUCKET MEMORIAL ***IFR*** 3 SE FSS: NANTUCKET on Fld
47 H50/6-24(2) (S-31, T-55, TT-) BL5, 6, 8A, 9 S3 F4 DT2 **RVV:** Rnwy 24
Tower [1]118.3 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 118.2 134.1 116.8T
Otis Dep Con 118.2
ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC
Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.
VHF/DF: ctc FSS.
Remarks: [1]Oper 1200-0400Z advisory svc other times.

§NEW BEDFORD MUNI ***IFR*** 2 NW FSS: NANTUCKET (DL)
79 H50/5-23(2) (S-63, T-110, TT) BL5,6,8, S5 F4 U2 DT2
Remarks: ILS apch zone for rnwy has unlgtd trees protruding above the 7 : 1 slope.
Tower 121.3 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I-EWB Apch Brg 053° **LOM:** 274/EW

NEW ULM RBn MHW 272/ULM
Remarks: VFR use only. Owned and operated by the state.

NORWOOD RBn MHW 212/OWD FSS: BOSTON

PITTSFIELD RBn MHW 343/PSF FSS: ALBANY

PROVINCETOWN MHW 230/PVC FSS: NANTUCKET
Operd Mass Aero Comm

WESTFIELD
§BARNES MUNI ***IFR*** 3 N FSS: WINDSOR LOCKS (LC 739-7132)
270 H90/2-20(3) (S-63, T-110, TT-195) BL5, 6 S3 F4, JP4 DT2
Remarks: Jet barrier rnwy 2-20.
Westfield Tower[1] 121.3 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 124.1 134.1 109.2T 114.0T
Westover Dep Con: 124.1 134.1
Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 1200-0400Z.

WHITMAN (L)BVORTAC 109.0/HTM FSS: BOSTON

§WORCESTER MUNI ***IFR*** 3 W FSS: WORCESTER on Fld
1009 H70 (11-29(3) (S-137, T-180, TT-297) BL6, 7, 12 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: Rnwy 29 threshold displaced 150'.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I-ORH Apch Brg 332° BC unusable **LOM:** 282/OR
Remarks: [1]ILS glide slope unusable below 1209' MSL acct roughness 750' inside MM to ldng threshold. Auto and manual apchs below alt not authorized.

MICHIGAN

ALMA RBn MH 329/AMN FSS: SAGINAW

ALPENA
§PHELPS COLLINS ***IFR*** 6 W FSS: PELLSTON (DL)
689 H90(18-36 (3) (S95-T125-TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: Rnwy 18 9000' avbl ldng, 8000' apbl tkoff. Rnwy 36 8000' avbl ldng. Rnwy 36 threshold displaced 1000'. Jet barrier 1050' S of apch end rnwy 18. GCA(ASR-PAR) VFR trng status for availability ctc twr, GCA civil freqs 118.5, 134.1 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5R
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN

MICHIGAN—*Continued*

BATTLE CREEK
§W K KELLOGG REGIONAL AIRFIELD ***IFR*** 3 W **FSS:** JACKSON (DL)
941 H70/4-22(4) (S-40, T-65, TT-115) BL4,6,8A,9 S5 F5 TP-1
Remarks: Rnwys 9-27, 18-36 clsd during winter months. E ramp S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR Adv Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I-BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141' MSL. LOM is MHW.

BELLAIRE RBn HW 251/ATM FSS: TRAVERSE CITY

BENTON HARBOR RBn MHW 400/BEH FSS: SOUTH BEND
Remarks: Privately owned and operated. Public instr flt rule apch procedure predicated on facil.

BOYNE FALLS RBn MHW 263/BFA **FSS:** PELLSTON
Remarks: VFR use only.

CADILLAC RBn MHW 269/CAD **FSS:** TRAVERSE CITY

CARLETON (L)BVORTAC 115.7/CRL **FSS:** DETROIT

CHARLEVOIX RBn MHW 222/CVX **FSS:** PELLSTON

COLDWATER RBn MHW 224/CWM **FSS:** JACKSON

DETROIT
§DETROIT CITY ***IFR*** 5 NE AOE **FSS:** DETROIT on fld
626 H51/15R-33L(3) (S250 T-350 TT) BL4, 11 S5 F4, JP1 U2 **REIL:** Rnwy 15
Remarks: 1063' (1749' MSL) 1057' (1738' MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0
ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226
ILS 111.3 I-DET Apch Brg 146° BC unusable **LOM** 338/DE
Remarks. VOT: 109.8

§DETROIT METROPOLITAN WAYNE ***IFR*** 13 SW AOE
FSS: DETROIT (DL)
639 H105/3L-21R (4) (S-200, T-200, TT-400) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R **REIL:** Rnwy 3R
Remarks: Rnwy 15 threshold displaced 650'. Fee.
Metro Tower 121.1 126.2 122.7R 122.7R 109.3T 110.7T
‡Clrnc Del 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[2] 125.15[1] 123.7[2]
Metro Dep Con 118.4[1] 123.7[2]
Tfc Info Ctc 123.7, 1124.9 App Con.
ASR Rnwy 9, 3L, 3R, 21L, 27, 33 Ceil 400 Vsby 1 mi Min Alt 1039 Rnwy 21R Ceil 500 Vsby 1 mi Min Alt 1139
ILS 109.3 I-DTW Apch Brg 032° **LOM:** 388/DT
110.7[3] I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H-SAB 388●/DT 121°
Remarks: LOM is SAB. [1]001-180, [2]181-360, [3]ILS unusable for auto apchs below 400' AGL. **VOT:** 109.0.

§WILLOW RUN ***IFR*** 19 SW **FSS:** DETROIT (DL)
716 H75/5-23(6) (S-60, T-90, TT-200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500' rnwy 9L not visible from twr. 320' overrun area SW end rnwy 5R-23L usable only tkoff rnwy 5R ldng rnwy 23L.
Tower 121.3 122.6R 109.5T 114.9T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro Dep Con 118.4 123.7

MICHIGAN—*Continued*

Tfc Info Ctc Metro App Con on 124.9 or 123.7
ILS 109.5 I–YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF contact tower.
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

ESCANABA (L) BVOR 110.8/ESC **FSS:** MARQUETTE (DL)

FLINT
§BISHOP *IFR* 3 SW **FSS:** LANSING (DL)
781 H56/9–27 (S–40, T–60, TT–110) BL4,5,6,8A,9 S5
F4 U2 **RVV:** Rnwy 9.
Remarks: Rnwy 18 threshold displaced 635'.
Flint Tower 119.5 126.3 122.5R 111.6T 109.9T
Gnd Con 121.9
VFR ADV Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

GAYLORD (T) BVOR 109.2/GLR **FSS:** PELLSTON

GRAND MARAIS RBn HW 341/GMI **FSS:** MARQUETTE

GRAND RAPIDS
§KENT COUNTY *IFR* 6 SE **FSS:** SAGINAW
793 H66/8–26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1
U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26. **REIL:**[1] Rnwys 8, 36
Remarks: [1]Non-Fed.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS[1] 109.7 I–GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 970' MSL.

GROSSE ILE RBn HW 414/NFB **FSS:** DETROIT

HOUGHTON (L)BVOR 112.8/CMX **FSS:** HOUGHTON
RBn H–SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT **FSS:** MARQUETTE

IRONWOOD (L)BVOR 108.8/IWD **FSS:** MARQUETTE

JACKSON
·**§REYNOLDS MUNI *IFR*** 2W **FSS:** JACKSON on Fld
1000 H53/5–23(2) (S–60, T–80, TT–) BL5,11 S5 F4 U2
REIL: Rnwy 23 (1200–0400Z)
Remarks: Rnwy 5 threshold displaced 559'. Rnwy 31 threshold displaced 475'.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clmc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
Jackson RBn MHW 281/JXN
Remarks: [1]Oper 1200–0400Z.

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§KALAMAZOO MUNI *IFR* 1SE **FSS:** SOUTH BEND (DL)
874 H53/17–35(3) (S–30, T–50, TT–85[1]) BL4,6,8A,9 S5
F4 JP5
Remarks: [1](S–40, T–65, TT–110) avail rnwys 5–23 & 9–27. 42' lgt obstn lctd aprxly 1100' S and 75' W apch end rnwy 35 til aprxly August 1966.
Tower[1] 118.3 122.7R 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[2] 110.9 1–AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200–0400Z. [2]Glide slope unusable below 1062'.

KEELER (L) BVOR 115.1/ELX **FSS:** SOUTH BEND
Remarks: To be BVORTAC Sep 19.

MICHIGAN—*Continued*

KINCHELOE (L) VOR 108.6/INR **FSS:** SAULTE STE MARIE
RBn MHW 410/IN

LANSING
§CAPITAL CITY *IFR* 3NW **FSS:** LANSING on Fld
859 H65/9–27(2) (S–30, T–40, TT) BL5,6,8A,11 S5
F4, JP1 **RVR:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037' (1889' MSL) twr 8 NM ESE and 1023' (1923' MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.
ILS 110.1 I–LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL **FSS:** TRAVERSE CITY

MARQUETTE (L) BVORTAC 109.0/MQT **FSS:** MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM **FSS:** GREEN BAY

MT. PLEASANT (L) BVOR 109.8/MOP **FSS:** SAGINAW

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§MUSKEGON CO *IFR* 4S **FSS:** MUSKEGON on Fld
628 H56/14–32(3) (S–40, T–65, TT–110) BL6,8A,9 S5 F4 U2
RVR: Rnwy 32
Remarks: Rnwy 36 threshold displaced 300'. Rnwy 14 threshold displaced 300'.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 1–MKG Apch Brg 317° BC unusable **LOM:** 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828' MSL.

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

PELLSTON (L) BVOR 111.8/PLN **FSS:** PELLSTON
RBn (H) 332/PLN

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§PONTIAC MUNI *IFR* 5W **FSS:** DETROIT (DL)
974 H53/9–27(3) (S–40, T–65, TT–110) BL6 S5 F4 U2
Tower [1]120.5 122.5R 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK
Remarks: [1]Oper 0700–2300 lcl time.

PULLMAN (H) BVORTAC 112.1/PMM **FSS:** SOUTH BEND

REED CITY RBn MHW 275/RCT **FSS:** MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW **FSS:** SAGINAW on fld
667 H56/–5–23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 0700–2300 lcl time.

SALEM (L) BVORTAC 114.3/SVM **FSS:** DETROIT

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§SAULT STE MARIE MUNI *IFR* 1SW AOE
FSS: SAULT STE MARIE on Fld
722 H50/14–32(1) BL5, 11 S3 F4
REIL: Rnwy 14.
VFR ADV: Ctc Kincheloe for APP CON/DEP CON on 119.0.
(H) BVORTAC 112.2/SSM 337° 4.2 NM to fld.
RBn H–SAB 400●/SSM 313° 2NM to fld.

SAWYER (H) VOR 117.5/SAW **FSS:** MARQUETTE
RBn HW 359/SAW

SELFRIDGE (L) VOR 113.4/MTC **FSS:** DETROIT

THREE RIVERS RBn MHW 407/HAI **FSS:** JACKSON

MICHIGAN—*Continued*

TRAVERSE CITY (L) BVOR 112.4/TVC FSS: TRAVERSE CITY
RBn H-SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC FSS: MUSKEGON

WHITEFISH (L) BVOR 116.6/FSP FSS: SAULT STE MARIE

MINNESOTA

ALEXANDRIA (L) BVOR) 112.8/AXN FSS: ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM FSS: ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE FSS: HIBBING

BEMIDJI (L) BVOR 108.6/BJI FSS: HIBBING

BRAINERD (L) BVOR 109.2/BRD FSS: ALEXANDRIA

DARWIN (L) BVORTAC 109.0/DWN FSS: MINNEAPOLIS

§DULUTH INTL *IFR* 5NW (AOE) FSS: HIBBING
1429 H101/9-27(3) (S-80, T-112.5, TT-205) BL4,6,8A,9,10
F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9-27
Remarks: Jet barrier 2650′ from apch end rnwy 9 and 600′ from apch end rnwy 27. 1000′ overruns rnwy 9-27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I-DLH Apch Brg 087° **LOM:** 379/DL
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H-SAB 379●/DL 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H-SAB. [1]Glide slopes unusuable beyond 12NM.

EVELETH (T) BVOR 108.2/EVM FSS: HIBBING

FERGUS FALLS (T) BVOR 110.4/FFM FSS: ALEXANDRIA
Remarks: State owned. VFR use only.

FAIRMONT (T)BVOR 110.2/FRM FSS: MASON CITY
Remarks: VFR use only.

FARMINGTON (L) BVOR 115.7/FGT FSS: MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ FSS: HIBBING

HIBBING (L) BVOR 110.8/HIB FSS: HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL FSS: HIBBING

MANKATO (L) BVOR 110.8/MKT FSS: MINNEAPOLIS

MINNEAPOLIS

§CRYSTAL *IFR* 8NW FSS: MINNEAPOLIS (DL)
869 H32/13L-31(2) (S-21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Rnwy 5L-23R threshold displaced 400′ lndg distance avbl 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600-2200.

§FLYING CLOUD *IFR* 11SW FSS: MINNEAPOLIS (DL)
909 H36/9L-27R(3) (S-14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3

MINNESOTA—*Continued*

Tfc Info: Ctc Minneapolis App Con 126.5.
(L) VOR 111.8/FCM at fld.
Remarks: [1]Oper 0600-2200.

§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) *IFR* 6S FSS: MINNEAPOLIS on Fld
840 H100/11R-29L(3) (S-110, T-150, TT-270) BL6,8A,9,10,11
S5, F5 JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4 **RVV:** Rnwy 29L
REIL Rnwy 11R, 22
Remarks: First 1000′ NE end rnwy 4-22 clsd to non-mil acft. Rnwy 11L-29R threshold displaced 610′ SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2
117.3T 111.8T 110.3T 109.3T 108.6T
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 300 Vsby ¾ mi Min Alt 1140
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295° **LOM:** 266/MS
109.3[1] I-APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H-SAB 266●/MSP 287° 2.4NM to fld.
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusable beyond 16 nmi. LOM is H-SAB. **VOT:** 111.0.

NODINE (H) BVORTAC 117.9/ODI FSS: LaCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD FSS: GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF FSS: REDWOOD FALLS

§ROCHESTER MUNI *IFR* 7S FSS: ROCHESTER on Fld
1310 H64/13-31(2) (S-126, T-159, TT-260) BL4,6,8A,9 S5 F4, JP4
U2 **RVV:** Rnwy 31
Remarks: Rnwy 2-20 clsd to acft over 50,000 lbs GWT unless cross wind component rnwy 13-31 exceeds 25 knots.
Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.8
App Con 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I-RST Apch Brg 307° **LOM:** 254/RS
(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC FSS: MINNEAPOLIS
Remarks: VFR use only.

ST PAUL

§ST PAUL-DOWNTOWN (Holman Fld) *IFR* 1S FSS: MINNEAPOLIS (DL) 703 H55/12-30(3) S-54, T-87, TT-160)
BL2,5,11 S5 F5, JP5 U2 **REIL:** Rnwy 30
Remarks: 4562′ avbl lndg rnwy 12.
St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
117.3T 111.8T 110.3T 109.3T 266T
Minneapolis Dep Con 119.3
Tfc Info Ctc Minneapolis App Con on 126.5.
St Paul (T)VOR 108.6/STP 289° 4.6NM to fld.
Remarks: [1]Oper 0600-2200 lcl time.

THIEF RIVER FALLS (L) BVOR 108.4/TVF FSS: GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

MINNESOTA—*Continued*

WILLMAR (T) BVOR 108.4/ILL FSS: REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA FSS: LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG FSS: REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS FSS: TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV FSS: MOBILE

GREENVILLE (T) BVOR 110.2/GLH FSS: GREENWOOD

GREENWOOD (H) BVORTAC 114.7/GRW FSS: GREENWOOD

§GULFPORT MUNI *IFR* 3NE FSS: MOBILE (LC 436-4242)
28 H90/13-31(3) (S-80, T-120, TT-210) BL4,6 S5 F5, JP1 U2
Remarks: Arrest barrier in oper on Rnwy 13-31. J-bar avbl Rnwy 13-31 on 5 min notice. 1000′ overruns ea end Rnwy 13-31.
Tower 121.3 122.5R 109.0T **Gnd Con** 121.9
App Con 124.6 122.5R 109.0T
(L) BVORTAC 109.0/GPT on fld.

HATTIESBURG (L) BVORTAC 110.6/HBG FSS: McCOMB (LC 582-2009)

HOLLY SPRINGS (L) BVOR 112.4/HLI FSS: MEMPHIS

JACKSON

§HAWKINS FIELD *IFR* 2NW FSS: JACKSON
343 H54/16-34(2) (S-30, T-45, TT-80) BL4,6 S5 F4 JP1 U2
Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW. SW 1615′ (1949′) twr 10 NM WSW.
Tower[3] 118.7 126.2 122.5R ~~121.5~~ 278T
Radar Services:
Jackson App Con 123.9[1] 125.2[2]
Jackson Dep Con 123.9 125.2
Jackson RBn H-SAB 260●/JAN 183° 2.3NM to fld.
Remarks: [1]333°-152°. [2]153°-332°. [3]1200-0400Z.

§THOMPSON FIELD *IFR* 5E FSS: JACKSON on Fld
345 H85/15L-33R(2) (S-120, T-150, TT-265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.
Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7
Radar Services: (BCN)
Jackson App Con 125.2[1] 123.9[2]
Jackson Dep Con 125.2[1] 123.9[2]
ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745
Tfc Info: Ctc App Con
ILS[3] 110.5 I-JAN Apch Brg 153° **LOM:** 365/JA
Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.
VHF/DF ctc twr.
Remarks: [1]153°-332°. [2]333°-152°. [3]Glide slope unusable below 485′.

KEESLER RBn HW 391/BIX FSS: MOBILE

KEWANEE (L) BVOR 113.8/EWA FSS: MERIDIAN

LAUREL (L) BVOR 108.6/LUL FSS: MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB FSS: McCOMB

MERIDIAN

§KEY FIELD *IFR* 3SW FSS: MERIDIAN on Fld
297 H80/1-19(2) (S-45, T-120, TT-220) BL6 S3 F4, JP3
RVV: Rnwy 01
Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Jet barrier rnwy 1-19. Servicing Fee after 7 P.M.
Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Meridian App Con 120.5
Meridian Dep Con 124.8
ILS 110.1 I-MEI Apch Brg 004° BC unusable **LOM:** 356/ME
Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.

MISSISSIPPI—*Continued*

Remarks: [1]Twr opers 1300-0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ FSS: McCOMB

PICAYUNE (L) BVOR 112.2/PCU FSS: NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP FSS: MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR FSS: COLUMBIA

BLUE SPRINGS (L) BVORTAC 113.6/BSP FSS: KANSAS CITY

BULTER (H) BVOR/DME 115.9/BUM FSS: KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI FSS: CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI FSS: COLUMBIA

DOGWOOD (L) BVOR 109.4/DGD FSS: SPRINGFIELD
Remarks: To be BVORTAC Sep 16.

FARLEY RBN MHW 290/FRY FSS: KANSAS CITY

FARMINGTON (H) BVORTAC 115.7/FAM FSS: CAPE GIRARDEAU

FORNEY (L) VOR 110.0/TBN FSS: VICHY
RBn MH 391/TBN

HALLSVILLE (L) BVORTAC 115.4/HLV FSS: COLUMBIA

JEFFERSON CITY (L) BVOR 110.2/JEF FSS: COLUMBIA

§JOPLIN MUNI *IFR* 4NE FSS: JOPLIN on Fld
980 H55(3) BL4,6 S5 F4 U1
Remarks: 999′ (2049′ MSL) twr 5 NM SSW.
ILS[1] 110.3 I-JLN Apch Brg 131° **LOM:** 219/JL
Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

KANSAS CITY

§MID-CONTINENT INTL *IFR* 15NW FSS: KANSAS CITY
1011 H90/18-36(1) (S-100, T-188, TT-350) BL6,8A,9
RVR: Rnwy 36
Tower 120.7 **Gnd Con** 121.8
Radar Services:
Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
ILS 110.5 I-MCI Apch Brg 005° **LOM:** 359/MC
RBn H-SAB 359/MC 005° 4.4 to rnwy 36.
Remarks: [1]E sector. [2]W sector. LOM is H-SAB.

§KANSAS CITY MUNI *IFR* 4N FSS: KANSAS CITY on Fld
758 H70/18-36(3) (S-110, T-165, TT-365) BL4,6,8A,9,11,13 S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36
Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.
Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9
ATIS: [4]111.4
Radar Services: (BCN)
App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
Dep Con 118.1
Tfc Info: Ctc App Con
PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.
ILS[3] 109.9 I-MKC Apch Brg 187° BC unusable **LOM:** 219/MK
(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.
Riverside (T) VOR 111.4/RIS on fld.
VHF/DF Ctc twr.
Remarks: Acft approaching from 001-180° use 118.9 and/from 179°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. [4]Oper 0600-2400 lcl time
VOT: 108.6.

MISSOURI—*Continued*

KIRKSVILLE (H) BVORTAC 114.6/IRK FSS: KIRKSVILLE

LAKE RBn HW 385/LAQ FSS: ST. LOUIS

MACON (L) BVOR 112.9/MCM FSS: KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW FSS: CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP FSS: VICHY

MARSHALL (L) BVOR/DME 109.6/MHL FSS: COLUMBIA

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS FSS: ST LOUIS

NEOSHO (L) BVOR 116.6/EOS FSS: JOPLIN

READSVILLE (L) BVOR 112.0/REA FSS: COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW FSS: KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW FSS: ST. LOUIS

ST JOSEPH

§ROSECRANS MEMORIAL ***IFR*** 3WNW FSS: KANSAS CITY (DL)
826 H80/17–35(3) (S–60, T–160, TT–250) BL4,6,8 S5 F4
RVV: Rnwy 35
Tower 119.9 122.5R **Gnd Con** 121.9
Kansas City App Con 121.1 126.2 122.7R 118.9
Kansas City Dep Con 118.1
ILS[1] 110.3 I–STSJ Apch Brg 352° LOM: 260/ST
(L) BVORTAC 108.2/STJ 167° 10.7NM to fld.
Remarks:[1] ILS unusable below 1060′

ST. LOUIS

§LAMBERT-ST LOUIS ***IFR*** 10NW FSS: ST. LOUIS on Fld
571 H100/12R–30L(4) (S–100, T–200, TT–400) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24
Remarks: Arresting gear all rnwys excp rnwy 12L–30R. Threshold lgts permly relctd 476′ SE apch end rnwy 12R.
St. Louis Tower 118.5 126.2 122.7R **Gnd Con** 121.9
‡Clrnc Del 119.5
ATIS[4]: 110.3 109.7
Radar Services:
St. Louis App Con 126.5[1] 123.7 118.1[2]
117.4T 110.3T 109.7T **St. Louis Dep Con** 119.9
Tfc Info Ctc St. Louis App Con.
PAR[3] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I–STL Apch Brg 238° **LOM:** 404/ST
109.7 I–LMR Apch Brg 117° **LOM:** 338/LM
VHF/DF Ctc twr.
St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.
St. Louis RBn (H–SAB) 338●/LM 117° 5.3NM to fld.
Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [3]Radar monitoring of instrument apchs only at pilot's request. LOM is H–SAB. [4]Opers 0600–2400 lcl. **VOT:** 111.0

§ SPIRIT OF ST. LOUIS 20W FSS: ST. LOUIS (DL)
462 H51/7–25(1) (S–30) BL6 S5 F4 DT2
Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, ldgs not authorized.
Tower[1] 118.3 122.5R 121.5X **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.
Remarks: [1]Opers 1200–0300Z. [2]Southeast arrivals. [3]Northwest arrivals.

§SPRINGFIELD MUNI ***IFR*** 5NW FSS: SPRINGFIELD on Fld
1267 H56/1–19(2) (S–65, T–95, TT–165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1
Tower 119.9 122.5R **Gnd Con** 121.9
VFR ADV 125.8
App Con 125.8 122.5R 116.9T 109.9T

MISSOURI—*Continued*

ILS[1] 109.9 1–SGF Apch Brg 015° **LOM:** 404/SG
(H) BVORTAC 116.9/SGF 193° 6.8NM to fld
RBn H–SAB 254●/SGF 137° 3.6NM to fld
VHF/DF: ctc FSS.
Remarks: [1]Glide slope unusable below 1325 ft MSL.

VICHY (L) BVORTAC 117.7/VIH FSS: VICHY

WHITEMAN (L) VOR 109.0/SZL FSS: COLUMBIA
RBn HW 314/SZL

MONTANA

BILLINGS

§LOGAN FIELD ***IFR*** 2NW FSS: BILLINGS on Fld
3606 H86/9–27(3) (S–130, T–200, TT–400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9
Remarks: 1000′ overrun each end rnwy 9–27.
Billings Tower 118.3 122.5R
VFR ADV: 120.5
Billings Gnd Con 121.9
Billings App Con 120.5 122.5R 114.5T 110.3T
ILS[1] 110.3 I–BIL Apch Brg 095° **LOM:** 251/BI
Billings (H) BVORTAC 114.5/BIL 070° 3.2NM to fld
Billings RBn H–SAB 400 /BIL 243° 1.4NM to fld
VHF/DF: Avail ctc FSS.
Remarks: [1]Not approved for auto apchs.

BOZEMAN (L) BVOR 112.2/BZN FSS: BOZEMAN
RBn H–SAB 329●/BZN

BUTTE (L) BVORTAC 111.6/BTM FSS: BUTTE

CUT BANK (L) BVORTAC 114.4/CTB FSS: CUT BANK
RBn[1] **BH** 263/CTB
Remarks: [1]VFR use only.

DILLON (H) BVORTAC 113.0/DLN FSS: DILLON
RBn[1] **BH** 379/DLN
Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU FSS: MISSOULA

GLASGOW (H) VOR 113.9/GSG FSS: MILES CITY
RBn H 236/GSG

§GREAT FALLS INTL ***IFR*** 3SW FSS: GREAT FALLS on Fld
3671 H90/3–21(4) (S–60, T–80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34
Remarks: Rnwy 7–25 not authorized to acft over 64,000 lbs GWT. Jet barrier rnwy 3–21.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1 119.3 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.1 119.3 or 122.7R
ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171
ILS 110.3 I–GTF Apch Brg 341° BC unusable
(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld
RBn S–SAB[1] 371/GTF 009° 0.9 NM to fld
Remarks: [1]HSAB will be relctd to OM site.

§HELENA ***IFR*** 2NE FSS: HELENA on Fld
3873 H70/8–26(3) (S–90, T–120, TT–200) BL 5,11 S5 F4, JP1 U2 **REIL** rnwy 26
Remarks: Rnwy 11–29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
(H) BVORTAC 117.7/HLN at fld.
RBn[1] **SBH** 317/HLN
Remarks: [1]VFR use only.

MONTANA—*Continued*

KALISPELL (L) BVOR 108.4/FCA **FSS:** MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT **FSS:** LEWISTOWN
RBn[1] SBH 353/LWT
Remarks: [1]VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM **FSS:** LIVINGSTON
RBn[1] BH 224/LVM
Remarks: [1]VFR use only.

MALMSTROM (L) VOR 116.3/GFA **FSS:** GREAT FALLS

MILES CITY (H) BVORTAC 112.1/MLS **FSS:** MILES CITY
Rbn (H–SAB) 320 /MLS

§MISSOULA CO *IFR* 4NW **FSS:** MISSOULA on Fld
3203 H-70/11-29(3) (S-120, T-155, TT-235) BL6 S5 F4 U2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1]Oper 1300–0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA **FSS:** BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA **FSS:** SCOTTSBLUFF
RBn[1] HW 287/AIA
Remarks: [1]Owned by State.

BEATRICE (T) BVOR 110.6/BIE **FSS:** LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR **FSS:** CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

COLUMBUS (T) BVOR 110.4/OLU **FSS:** LINCOLN
Remarks: Owned by State.

§GRAND ISLAND MUNI *IFR* 4NE **FSS:** GRAND ISLAND on Fld
1846 H72(3) (S–42, T–65, TT–125) BL5,6,8A,9 S5 U–1 F5, JP–1
Remarks: 1000′ asphalt overrun both ends rnwy 17–35. BAK/12 arresting gear lctd 90′ in overrun rnwy 35 and 80′ in overrun rnwy 17.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1]Oper 1200–0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI **FSS:** GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT **FSS:** IMPERIAL

IMPERIAL RBn BH 391/IML **FSS:** IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN **FSS:** SIOUX CITY

KEARNEY (T) BVOR 111.2/EAR **FSS:** GRAND ISLAND
Remarks: Owned by state.

§LINCOLN MUNI/AFB *IFR* 4NW **FSS:** LINCOLN on Fld
1198 H129/17R–35L(2)[1] (Max–15) BL6,8A,9,11 S5
F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: [1]All civ acft use 4000′ rnwy 17L–35R except Max 30, BL6 in actual IFR conditions or when acft manufacturers' recommendations rqr the use of rnwy 17R–35L. Ctn-jet tfc. Rnwy 17L–35R (S–31, T–50, TT–87)
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I–LNK Apch Brg 351° **LOM:** 385/LN
(L) BVORTAC 116.0/LNK

NEBRASKA—*Continued*

RBn MHW 385/LN
Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC.

McCOOK (L) BVOR 110.0/MCK **FSS:** NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK **FSS:** OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF **FSS:** NORTH PLATTE
RBn H–SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD *IFR* 3NE **FSS:** OMAHA on Fld
983 H85/14–32(2) (S–180, T–200, TT–400) BL4,8A,9,11,12 S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: US Customs lndg rgts arpt.
Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R 116.3T[2]
Omaha Dep Con 124.5 118.0 122.5R[2]
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I–OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H–SAB 320●/OM 136° 4.1 NM to rnwy 14.
Remarks: [1]BC unusable beyond 16 NM. [2]Freqs for Shenandoah, Iowa. LOM is H-SAB.

O'NEILL (H) BVORTAC 113.9/ONL **FSS:** GRAND ISLAND

PAWNEE CITY (H) BVORTAC 112.4/PWE **FSS:** LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF **FSS:** SCOTTSBLUFF
RBn MHW[1] 341/BFF
Remarks: [1]Operd by State.

SIDNEY (H) BVOR 115.7/SNY **FSS:** SIDNEY

WOLBACH (H) BVORTAC 114.7/OBH **FSS:** GRAND ISLAND

NEVADA

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM **FSS:** ELKO

BEATTY (H) BVORTAC 114.7/BTY **FSS:** TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD **FSS:** LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL **FSS:** TONOPAH

CURRANT (L) BVOR 113.4/URR **FSS:** ELY

ELKO (L) BVORTAC 114.5/EKO **FSS:** ELKO
RBn SBH 391/EKO

ELY (L) BVOR 110.6/ELY **FSS:** ELY

HAZEN (L) BVORTAC 114.1/HZN **FSS:** LOVELOCK

INDIAN SPRINGS RBn HW 215/INS **FSS:** LAS VEGAS

LAS VEGAS
§McCARRAN *IFR* 5S **FSS:** LAS VEGAS on fld.
2171 H125/7–25(3) (S–100, T–200, TT–380) BL4,6,10 S5 F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750′W end. 11,795′ avbl lndg rnwy 7 and tgof rnwy 25 day/ngt. 12545′ avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625′ SW end. 6878′ avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503′ avbl lndg rnwy 19 and tgof rnwy 1 day/ngt . Rnwy 32 threshold displaced 379′ SE end. 4021′ avbl rnwy 32 day/ngt. 4400′ avbl tkof rnwy 32 day only. 4021′ avbl tkof rnwy 32 ngt only. 4400′ avbl lndg rnwy 14 day only. 4021′ avbl lndg rnwy 14 ngt only. 4021′ avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 125.9 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.

NEVADA—*Continued*

ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H–SABZ 206●/LAS 196° 8.5 NM to rnwy 19.

LOVELOCK (L) BVORTAC 116.5/LOL FSS: LOVELOCK

MERCURY RBn HW 326/MCY FSS: LAS VEGAS

MINA (L) BVOR 113.1/MVA FSS: TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM FSS: LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO FSS: LOVELOCK

§RENO MUNI *IFR* 2SE FSS: RENO on Fld
441 H90/16–34(2) (S–100, T–160, TT–250)* BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: A-gear each threshold rnwy 16–34. *Rnwy 7–25 (S–100, T–200, TT–350).
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 254T
ILS 109.3 I–RNO Apch Brg 162° **LMM:** 254/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn SBH 254/RNO 161° 2.3NM to fld.
Remarks: LMM is SBH.

SOD HOUSE (L) BVOR 114.3/SDO FSS: LOVELOCK

SPARKS RBn MHW 329/SPK FSS: RENO

TONOPAH (L) BVORTAC 117.2/TPH FSS: TONOPAH

WELLS (L) BVOR 114.2/LWL FSS: ELKO

WILSON CREEK (H) BVOR 116.3/ILC FSS: CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML FSS: CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON FSS: CONCORD

KEENE (L) BVOR 109.4/EEN FSS: CONCORD
RBn MHW^{1} 224/EEN
Remarks: ^{1}Oper by State.

LACONIA RBn MHW 400/LCI FSS: CONCORD (LC 524–2236)
Remarks: Oper by State.

LEBANON (L) BVOR 113.7/LEB FSS: LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) *IFR* 4S FSS: CONCORD (LC 669–1641)
233 H70/17–35(2) (S–127, T–200, TT–400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower 121.3 126.2 122.5R
ILS 108.3 I–MHT Apch Brg 352° BC unusable
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW^{1} 338/MHT 352° 3.5NM to fld.
Remarks: ^{1}Oper by State.

NASHUA RBn MHW 260/AMH FSS: CONCORD (LC 889–0301)
Remarks: Oper by State.

NORTH CONWAY RBn MHW 334/CWN FSS: CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR FSS: CONCORD
Remarks: To be in common system.

WHITEFIELD RBn MHW 272/HIE FSS: LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) *IFR* 9NW FSS: MILLVILLE (LC 399–8096)
76 H100/13–31(4) (S–63, T–88, TT–160) BL4,6,8A,9 S3 F5, JP4 DT2
Remarks: Fee. BAK/9 arresting gear installed 2000′ from threshold rnwy 13 and 1000′ from threshold rnwy 31. Pendant 1½″ steel cable stretched across rnwy 31; ½–4″ above surface with rubber doughnuts extending 6″ above surface. Pendant may gyrate. Unlgtd frangible distance to go mrkrs every 1000′ each side rnwy 13–31.
Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500^{1} Vsby 1 mi Min Alt 576
ILS 110.5 I–ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlanta City NAFEC (L) VORTAC 108.6/ACY at NAFEC
VHF/DF Ctc twr.
Remarks: ^{1}400 authoriezd for rnwys 13, 17, 22, 26, 31.

BARNEGAT (L) BVOR 116.7/BGT FSS: MILLVILLE

CHATHAM RBn MHW 254/CAT FSS: NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL FSS: TETERBORO

COYLE (H) BVORTAC 113.4/CYN FSS: MILLVILLE

LAKEHURST RBn HW 396/NEL FSS: N. PHILADELPHIA

MILLVILLE (L) BVORTAC 115.2/MIV FSS: MILLVILLE
Rng SBRAZ^{1} 363/MV
Remarks: ^{1}Reliable reception distance 50 NM.

§MORRISTOWN MUNI *IFR* 2E FSS: TETERBORO (LC JE8–2196)
187 H40/4–22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 800′ rnwy 22. Ngt trng flts by nonbased acft prohibited. Due obstns, ramp and txwys not ctld by twr.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6^{2} 124.3^{3} 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: ^{1}Oper 1200–0400Z. ^{2}270–089° ^{3}090–269°

§NEWARK MUNI *IFR* 2 S FSS: TETERBORO (DL)
18 H70/4–22(2) (S–115, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE.
Tower 118.3 126.2 122.7R 110.3T 109.3T 109.1T
‡Clmc Del 121.4 **Gnd Con** 121.9
ATIS: 109.1 or 110.3 (Arr)
Radar Services: (BCN)
App Con 120.6 ^{2} 124.3 ^{3} 122.7R 110.3T 109.3T
Dep Con 119.2 127.6
Tfc Info Inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600^{1} Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I–EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW^{4}
109.1 I–ARK Apch Brg 217° **LOM:** 242/AR
RBn H–SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: ^{1}Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix ^{2}270–089° ^{3}090–269° ^{4}LOM unusable beyond 12 mi 050-090°. **VOT:** 108.6

NEW JERSEY—*Continued*

PALISADE PARK MHW 233/PAD

PATERSON RBn MHW 347/PNJ FSS: TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV FSS: N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE FSS: MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ FSS: TETERBORO

SPARTA (L)BVORTAC 112.3/SAX FSS: TETERBORO

STILLWATER (L) BVORTAC 109.6/STW FSS: TETERBORO

§TETERBORO MUNI *IFR* 1 SW FSS: TETERBORO on Fld
7 H50/6–24(3) S–50, T–80, TT–) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission. Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14–32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I–TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY *IFR* 4 NW FSS: PHILADELPHIA (LC. 882-1590)
213 H52/6–24(3) S–31.5, T–51, TT–) BL4,11,12,[1] S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. [1]1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R 109.3T
Philadelphia Dep Con 119.0[1] 128.55[2]
ILS 111.3 I–TTN Apch Brg 065° **LOM:** 369/TT
Remarks: [1]270–089°. [2]090–269°.

WOODSTOWN (L)BVOR 112.8/00D FSS: MILLVILLE

NEW MEXICO

ALAMOGORDA RBn HWZ 375/ALM FSS: ROSWELL

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE FSS: ALBUQUERQUE on Fld
5352 H127/8–26(4) (S–158, T–200, TT–400) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVR:** Rnwy 35
Remarks: Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC–3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
Gnd Con 121.9
Clrnc Del 119.2
ATIS: 110.3
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
Albuquerque Dep Con 123.9
Tfc Info Ctc App Con 25 mi out on 121.1.
PAR[2] Rnwy 8[1] Ceil 300 Vsby ¾ mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I–ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: [1]500–1½ rqrd for civil jet acft. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO (L)BVOR–DME 110.0/ACH FSS: LAS VEGAS

CANNON (L) VORW 115.7/CVS FSS: TUCUMCARI
RBn HW 272/CVS

NEW MEXICO—*Continued*

CARLSBAD (L)BVOR 116.3/CNM FSS: CARLSBAD

CIMARRON (H) BVORTAC 116.4/CIM FSS: TRINIDAD

COLUMBUS (L) BVORTAC 111.2/CUS FSS: DEMING

CORONA (L) BVOR 115.5/CNX FSS: ALBUQUERQUE

DEMING (L) BVOR 108.6/DMN FSS: DEMING

§FARMINGTON MUNI *IFR* 2 NW FSS: FARMINGTON of Fld
5503 H67(2) (Max–60) BL4 S5 F4 TP1 U2
Tower[1] 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

GALLUP (H)BVORTAC 115.1/GUP FSS: ZUNI

GRANTS (L)BVORTAC 116.5/GNT FSS: GRANTS

§HOBBS, LEA COUNTY *IFR* 4 W FSS: HOBBS on Fld
3659 H63/3–21 (4) (S–115 T–200 TT–400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN (L)VORW 115.8/HMN FSS: ROSWELL

LAS VEGAS (H) BVORTAC 117.3/LVS FSS: LAS VEGAS

OTTO (L) BVOR 114.0/OTO FSS: ALBUQUERQUE

PINON (L) BVOR 110.4/PIO FSS: EL PASO

§ROSWELL MUNI *IFR* 1 NW FSS: ROSWELL on Fld
3623 H58/17–35(4) (S–42, T–60, TT–110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 120.2 122.7R
Walker Dep Con 123.8
Tfc Info Ctc Walker App Con 30 mi out at 10,000′ and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn SABH[2] 305●/ROW 312° 7.9 NM to fld.
Remarks: [1]Oper 1300–0500Z. [2]Oper 1200–0500Z.

§SANTE FE COUNTY MUNI *IFR* 9 SW FSS: SANTA FE on Fld
6344 H83/2–20 (3) (S–45, T–60, TT–) BL4 S5 F4, JP1 U2
Tower 126.2 122.5R 119.5 **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO (H) BVORTAC 116.8/ONM FSS: ALBUQUERQUE

TAOS (L) BVOR 117.6/TAS FSS: SANTA FE

TRUTH OR CONSEQUENCES (H) BVORTAC 112.7/TCS FSS: TRUTH OR CONSEQUENCES

TUCUMCARI (H) BVORTAC 113.6/TCC FSS: TUCUMCARI

WALKER RBn MHW 396/LK FSS: ROSWELL

ZUNI (L) BVORTAC 113.4/ZUN FSS: ZUNI

NEW YORK

§ALBANY COUNTY *IFR* 6 NW AOE FSS: ALBANY on Fld
288 H50/1–19 (3) (S–110, T–200, TT–400) BL4,6,8A,9,11 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S, trees SE. Rnwy 15–33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I–ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: VOT: 109.0

ALPINE RBn MHW 245/ALP FSS: ELMIRA

NEW YORK—*Continued*

AVON RBn MHW 344/AVN **FSS:** ROCHESTER

BABYLON RBn MHW 275/BBN **FSS:** NEW YORK

BECKSGROVE RBn MHW 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY ***IFR*** 7 N **FSS:** BINGHAMTON on Fld 1629 H56/16–34(2) (S–94.5, T–135, TT–) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34
Binghamton Tower 119.9 122.5R 114.37 112.1T
Gnd Con 121.9
Radar Services: (BCN)
Binghamton App Con 118.6 **Binghamton Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I–BGM Apch Brg 338° BC unusable **LMM:** 203/GM
Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.
Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO
§GREATER BUFFALO INTL ***IFR*** 5 E AOE **FSS:** BUFFALO on Fld 722 H81/5–23(2) (S–120, T–180, TT–400) BL4, 6, 11 S5 F5, JP1, JP4, JP5 DT2
Remarks: Fee.
Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7
Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7 110.3T
Buffalo Dep Con 125.5
Tfc Info Inbnd acft ctc Buffalo App Con on 126.5 or 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 110.3 I–BUF Apch Brg 232° **LOM:** 219/BU
108.5 I–GBI Apch Brg 052° BC unusable **LOM:** 204/GB
Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld
Buffalo RBn BH 260/BUF 211° 0.9 nm to fld
VHF/DF Ctc App Con.
Remarks: VOT: 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM **FSS:** GLENS FALLS

CANARSIE (T) VORW 111.0/CRI **FSS:** JFK TWR

CARMEL (L) BVORTAC 116.6/CMK **FSS:** TETERBORO

DEER PARK (L) VORTAC 111.2/DPK **FSS:** NEW YORK

DE LANCEY (L) BVOR 112.1/DNY **FSS:** BINGHAMTON

DUNKIRK (L) BVOR 114.2/DKK **FSS:** BUFFALO

ELMIRA
§CHEMUNG COUNTY ***IFR*** 5 NW **FSS:** ELMIRA on Fld 951 H56/6–24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2
Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.5 122.5R 120.0[1]
ILS 109.1 I–ELM Apch Brg 239° BC restricted
Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.
Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.
Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE **FSS:** BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT **FSS:** UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL **FSS:** GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO **FSS:** NEW YORK

HANCOCK (L) BVORTAC 109.0 HNK **FSS:** BINGHAMTON

HUGUENOT (H) BVORTAC 116.1/HUO **FSS:** WILKES-BARRE

NEW YORK—*Continued*

ISLIP
§LONG ISLAND—MacARTHUR ***IFR*** 7 NE **FSS:** NEW YORK on Fld 98 H50/6–24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6
Remarks: Trees E.
Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7
Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
ILS 108.3 I–ISL Apch Brg 057° **LOM:** 366/IS
VHF/DF: ctc FSS.
Remarks: [1]054–110°. [2]110–160°.

ITHACA (L) BVOR 111.8/ITH **FSS:** ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW **FSS:** BRADFORD

KINGSTON (L) BVOR 117.6/IGN **FSS:** POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS **FSS:** MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF **FSS:** POUGHKEEPSIE
RBn MHW 335/SWF

NEW YORK
§JOHN F KENNEDY INTL ***IFR*** 11 SE **FSS:** NEW YORK (DL) 12 H146/13R–31L(5) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 13L, 13R
RVR: Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]
Remarks: Fee. Clsd to fightertype, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R–31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3324′. Rnwy 7–25 clsd duration winter due constrn. Rnwy 4L–22R extended to 11,350′ with lndg threshold rnwy 22R displaced 3020′. Rnwy 13L displaced threshold usable length 7739′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Nonstandard. Lead in lgts rnwys 13L and 13R. Rnwy 13R usable 7884′; rnwy 31L usable 6884′.
Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡Clrnc Del 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5
Radar Services: (BCN)
Kennedy App Con 127.4 134.1 135.35 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
PAR Rnwy 4R, 22 Ceil 200 Vsby ½ mi Min Alt 212.
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 22R Ceil 500 Vsby 1 mi Min Alt 512.
Rnwys 31R Ceil 400 Vsby 1 mi Min Alt 412.
ILS 190.5 I–JFK Apch Brg 042° **LOM:** 373/JF[3]
110.9 I–IWY Apch Brg 222° **LOM:** 226/IW
111.5 I–RTH Apch Brg 311° BC unusable. **LOM:** 268/RT
Kennedy (H) BVORTAC 115.9/JFK on fld.
Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.
VHF/DF[1] Ctc twr.
Remarks: [1]054–110°, [2]110–160°. [3]LOM is MHW. **VOT:** 112.5.

§LA GUARDIA ***IFR*** 4E **FSS:** TETERBORO (DL) 21 H70/4–22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4
REIL: Rnwy 13–31, 22
Remarks: Fee. Rnwy threshold displaced 173′ NW. 5813′ avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. 1465′ (1520′ MSL) twr 5 NM WSW. Mag anomalies may affect compass heading when using extensions rnwys 13 and 22 for tkof.
FAA Dep Proc: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
Tower 118.7 122.7R 113.1T 109.9T 108.5T 110.5T
‡Clrnc Del 126.15 **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 1085T 110.5T

NEW YORK—*Continued*

Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [4]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
Rnwy 22 Ceil 200 Vsby ½ mi Min Alt 221
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.
ILS 109.9 I–LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I–GDI[1] Apch Brg 134°
110.5 I–URD[3] Apch Brg 223° BC unusable **LOM:** 385/UR
La Guardia (L) VOR–DME 113.1/LGA 177° 0.4 NM to fld
Palisade Park MHW 233/PAD
VHF/DF Ctc App Con.
Remarks: Flwg shut down indef due arpt constrn: Rnwy 22 apch lgts; Rnwy 4 ILS. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000–3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235–245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 109.0.

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§NIAGARA FALLS MUNI *IFR* 4 E **FSS:** BUFFALO (DL)
590 H91/10L–28R(4) (S–90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
Remarks: No signal SS–SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.
Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5 110.3T
Buffalo Dep Con 125.5
ILS 110.1 I–IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF Ctc twr.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200–0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

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§ROCHESTER-MONROE CO *IFR* 3 SW AOE
FSS: ROCHESTER on Fld
560 H70/4–22(5) (S–126, T–160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 28
Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS–SR to indicate IFR conditions.
Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I–ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I–MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

NEW YORK—*Continued*

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON

ROME RBn HW 212/RME **FSS:** UTICA

SARANAC LAKE (L) BVOR 111.2/SLK **FSS:** MASSENA

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§SCHENECTADY COUNTY *IFR* 2 N **FSS:** ALBANY (DL)
378 H70/4–22(3) (S–52) BL4, 6 S5
F5, JP5 DT2
Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr. Rnwy 28, 15 and 33 apch restricted by trees.
Tower[1] 126.2 121.3 1225R 356T
Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF Ctc twr.
Remarks: Opers 1200–0400Z.

SYRACUSE
§HANCOCK *IFR* 4 NE **FSS:** SYRACUSE on Fld
421 H90/10–28(3) (S–120, T–190, TT–350) BL4, 6, 8A, 9, 14 S5
F5, JP4 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 6–24 limited to acft under 12,500 lbs GWT.
Syracuse Towerr 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 125.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I–SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY *IFR* 7 NW **FSS:** UTICA on Fld
742 H60/15–33(2) (S–60, T–80, TT) BL4, 6, 8A, 9 S5
F2 U2 DT2 **RVV:** Rnwy 33.
Remarks: Rgt tfc rnwys 9 & 15.
Utica Tower 118.1 122.7R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.5R
Griffiss Dep Con 120.9
ILS 109.3 I–UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WESTHAMPTON BEACH
SUFFOLK COUNTY (T) VOR 110.4/FOK **FSS:** NEW YORK

WHITE PLAINS
§WESTCHESTER COUNTY *IFR* 3NE **FSS:** NEW YORK
439 H65/16–34(3) (S–63, T–110, TT–275) BL4, 8A, 9 S5
F5, JP5 U2 DT2
Remarks: Trees NW, SE. Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I–HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI *IFR* 9 S **FSS:** GREER (LC 684–4401)
2161 H65/16–34(1) (S–100, T–160, TT–275) BL6,8A,9,10 S5
F5, JP1, JP4. U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.

NORTH CAROLINA—*Continued*

Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I-AVL Apch Brg 342° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA FSS: ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB FSS: WILMINGTON

CHARLOTTE
§**DOUGLAS MUNI** ***IFR*** 4 W FSS: HICKORY (LC 332–8161)
748 H78/18–36 (2) (S–60) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932′ MSL) twr 10 NM ENE. Rnwy 18 threshod displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148
ILS[2] 109.5 I–CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L) BVORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. **VOT:** 112.0

COFIELD (L) BVORTAC 114.4/CVI FSS: ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG FSS: ELIZABETH CITY

FAYETTEVILLE
§**GRANNIS FIELD** ***IFR*** 3 S FSS: FAYETTEVILLE on Fld
189 H50/3–21(2) (S–64, T–120, TT–200) BL4,6,8A,9 S5 F4, JP4
RVV: Rnwy 3
Remarks: Trees NNW, SSE.
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I–GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG

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§**GREENSBORO-HIGH POINT/WINSTON-SALEM** ***IFR*** 7 W
FSS: RALEIGH (LC BR 56341)
926 H64/14–32(2) (S–40, T–140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Remarks: Rnwy 5 threshold displaced 290′.
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Grensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1326
ILS[1] 109.9 I–GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY FSS: HICKORY

KINSTON (L) BVORTAC 109.6/ISO FSS: NEW BERN

LIBERTY (L) BVOR 111.2/LIB FSS: RALEIGH-DURHAM

NORTH CAROLINA—*Continued*

NEW BERN (L) BVOR 108.4/EWN FSS: NEW BERN

PINEHURST (L) BVORTAC 111.8/SOP FSS: FAYETTEVILLE

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§**RALEIGH-DURHAM** ***IFR*** 9 NW FSS: RALEIGH on Fld
435 H75/5–23(3) (S–110, T–160, TT–270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: No signal btn SS–SR indicate gnd vsby of less than 2.6 NM and/or ceil less than 1000.
Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 122.5R 120.6
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I–RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H–SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 635′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT FSS: ROCKY MOUNT

SEYMOUR–JOHNSON AFB (L) VOR 116.5/GSB **FSS:** ROCKY MOUNT
RBn MHW 285/GSB
ILS[1] 109.3 I–GSB Apch Brg 078° BC unusable **LOM** 285/GSB
Remarks: LOM is MHW. [1]Glide slope unusable below 309′.

WEEKSVILLE RBn (HW) 254/EKV FSS: ELIZABETH CITY

WILMINGTON
§**NEW HANOVER CO** ***IFR*** 2 NE FSS: NEW BERN (LC 762–7567)
31 H80/5–23(3) (S–120, T, TT)* BL4, 6, 8A, 9 S5
F5, JP5 **RVR:** Rnwy 34
Remarks: *(S–90, T–120, TT–212) avbl rnwy 5–23 (S–30, T–48, TT–86) avbl rnwy 9–27 Rnwy 9 threshold displaced 2875′ E. Usable length rnwys 9 and 27. 4127′. Due non-vsby some areas of fld, ctc twr. Jet aresting gear rnwy 16–34.
Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9
Clrnc Del 121.9
Wilmington App Con 118.8 122.5R 110.3T
ILS[1] 110.3 I–ILM Apch Brg 343° **LOM:** 281/IL
Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.
Remarks: [1]Glide slope unusable below 231′.

WINSTON–SALEM
§**SMITH REYNOLDS** ***IFR*** 2NE FSS: HICKORY
969 H66/15–33(3) (S–40, T–85, TT–105) BL4, 6, 8, 12 S5
F5, JP5 U2 **RVV:** Rnwy 33.
Remarks: Apch lgts oper 0700–2300 only. Rnwy lgts 15–33 only oper 2300–0700. Rnwy 3–21 (S–56, T–85, TT–105)
Winston-Salem Tower[1] 118.7 126.2 122.7R 278T
Gnd Con 121.7
Radar Services: (BCN)
Greensboro App Con 118.5 122.5R 120.9 109.9T
Greensboro Dep Con 124.6
ILS[2] 110.3 I–INT Apch Brg 328° BC unusable **LOM:** 317/IN
Remarks: [1]Oper 1200–0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300–0700 EST daily.

NORTH DAKOTA

§**BISMARCK MUNI** ***IFR*** 2 SE FSS: BISMARCK on Fld
1677 H69/12–30(3) (S–78, T–114, TT–190) BL4, 6, 8 S5
F4 JP4 U2 **RVV:** Rnwy 30
Remarks: Rnwys 17–35, 2–20 and E–W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to lndg acft. Rnwy 2 threshold displaced 530′ SW end. Rnwy 12 threshold displaced 817′ NW end.

NORTH DAKOTA—*Continued*

Tower 118.3 122.5R **Gnd Con** 121.9

App Con 118.3

ILS 110.3 I–BIS Apch Brg 306° **LOM:** 215/BI

(L) BVORTAC 116.5/BIS 272° 3.6 NM to fld

RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB **FSS:** MINOT

DEVILS LAKE (L) BVOR 111.0/DVL **FSS:** GRAND FORKS

DICKINSON (H) BVORTAC 112.9/DIK **FSS:** DICKINSON

RBn BH[1] 308/DIK

Remarks: [1]VFR use only.

FARGO

§HECTOR FIELD *IFR* 2NW **FSS:** FARGO on Fld

900 H91/17–35(3) (S–90, T–120, TT) BL4,6, 8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35

Fargo Tower 118.3 122.5R **Gnd Con** 121.9

Fargo App Con 125.8 110.3T 365T

VFR ADV Ctc App Con 25 mi out on 125.8

ILS 110.3 I–FAR Apch Brg 351° **LOM:** 219/FA

Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld

Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVOR 111.2/GFK **FSS:** GRAND FORKS

JAMESTOWN (L) BVOR 114.5/JMS **FSS:** JAMESTOWN

MINOT (L) BVOR 117.1/MOT **FSS:** MINOT

Rng BMRLZ[1] 209/MT

Remarks: [1]Reliable reception distance 70 NM.

PEMBINA (H) BVORTAC 112.4/PMB **FSS:** GRAND FORKS

RED RIVER (H) VOR 116.7/RDR

RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN **FSS:** MINOT

OHIO

§AKRON MUNI *IFR* Adj SE AOE **FSS:** AKRON on Fld

1059 H53/7–25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2

REIL: Rnwys 7 and 25.

Remarks: Poles E. Obstn lgts inop SE hill apch rnwy 32. Rnwy 25 threshold displaced 511′ SW.

Tower 120.1 122.7R 110.9T **Gnd Con** 121.9

Radar Services:

Akron-Canton App Con 125.5 126.2 122.5R 109.5T

Akron-Canton Dep Con 118.6

ILS 110.9 1–AKR Apch Brg 246° **LOM:** 362/AKR

(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld

RBn MHW 362/AKR 246° 3.7 NM to fld.

Remarks: LOM is MHW.

§AKRON-CANTON *IFR* 10SE **FSS:** AKRON

1228 H56/1–19(4) (S–120, T–160, TT–250) BL4,6,11 S5 F5, JP1 DT2 **RVV:** Rnwy 1 **REIL:** Rnwy 23

Remarks: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.

Tower 126.2 122.5R 118.3 109.5T **Gnd Con** 121.7

Radar Services: (BCN)

App Con 125.5 126.2 122.5R 109.5T

Dep Con 118.6

ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400 Vsby 1 mi Min Alt 1628

ILS 109.5 1–CAK Apch Brg 006° **LOM:** 233/CA

Remarks: VOT: 115.4.

APPLETON (H) BVORTAC 116.7/APE **FSS:** COLUMBUS

ATHENS RBn MHW 206/UOA **FSS:** PARKERSBURG

OHIO—*Continued*

ATTICA (L) BVORTAC 116.9/ATO **FSS:** MANSFIELD

BELLAIRE (L) BVORTAC 111.0/AIR **FSS:** WHEELING

BRECKSVILLE RBn MHW 326/BKI **FSS:** CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV **FSS:** AKRON

CHARDON (L) BVORTAC 109.8/CXR **FSS:** CLEVELAND

COVINGTON, KY. (CINCINNATI, OHIO)

§GREATER CINCINNATI *IFR* 9SW Cincinnati **FSS:** CINCINNATI

890 H86/18–36(2) (S–179, T–283, TT–500) BL4,6,8A,9,11 S5 F5 **REIL:** Rnwy 27 **RVR** Rnwy 18–36

Remarks: Fee.

Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7

Clrnc Del 121.3

ATIS 112.9

Radar Services:

Cincinnati App Con 124.7 126.2 122.7R 119.7

Cincinnati Dep Con 121.0

ASR Rnwys 4, 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290. Rnwys 22, 27 Ceil 700 Vsby 1 mi Min Alt 1590

ILS 109.9 I–CVG Apch Brg 360° **LOM:** 287/CV

111.5 I–SIC Apch Brg 180° **LOM:** 351/SI

Cincinnati (L) VORTAC 112.9/CVG 043° 2.3 NM to fld

VHF/DF Ctc twr or radar.

Remarks: VOT: 108.4.

§CINCINNATI MUNI-LUNKEN FLD *IFR* 3SE **FSS:** CINCINNATI on Fld

488 H61/2R–20L(4) (S–55, T–75 TT–167) BL4,6,8A,9 S5 F4, JP4 U2

Remarks: Rnwy 2L threshold displaced 189′ NE. 4795′ avbl lndg rnwy 2L; tkoff rnwy 20R. 4984′ avbl lndg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 701′ SE. 3331′ avbl lndg rnwy 15; tkoff rnwy 33. 4032′ avbl tkoff rwy 15, lndg rnwy 33.

Lunken Tower 126.2 122.5R 118.7 **Gnd Con** 121.9

Radar Services:

Cincinnati App Con 119.7 126.2 124.7 122.7R

Cincinnati Dep Con 121.0

ILS[1] 110.9 I–LUK Apch Brg 201°

Cincinnati Rng SABRAZ[2] 335/LUK 227° 4.3 NM to fld

Remarks: [1]Glide slope unusable beyond 11 NM below 2700′ MSL. BC unusable beyond 10 NM. [2]Reliable reception distance 60 NM.

CLEVELAND

§BURKE LAKEFRONT Adj N **FSS:** CLEVELAND (DL)

584 H52/6–24(1) (S–31, T–37, TT–55) BL 6 S5 F4, JP1 U2 DT2

Remarks: Fee. Rgt tfc rnwy 24.

Lakefront Tower[3] 126.2 122.5R 120.9 **Gnd Con** 121.9

Radar Services

Cleveland App Con 124.0[1] 122.7R 118.5[2]

Cleveland Dep Con 121.0

Remarks: [1]270°–089° [2]090°–269° [3]Oper 1100–0300Z.

§CLEVELAND-HOPKINS INTL *IFR* 9SW AOE **FSS:** CLEVELAND on Fld

792 H90/5R–23L(5) (S–54, T–78, T–126)* BL4,6,8A,9,10,11 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27

REIL: Rnwy 36L.

Remarks: *(S-125, T–188, TT–338) avbl rnwy 9–27. Rnwy 23L apch restricted by fence. Rnwy 18L threshold displaced 493′S. 4522′ avbl lndg rnwy 18L; tkof rnwy 36R. 5015′ avbl lndg 36R, tkof rnwy 18L.

Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7

‡Clrnc Del 127.4

ATIS 112.0[5]

Radar Services: (BCN)

Cleveland App Con 124.0[1] 122.7R 118.5[2] 124.5[4] 110.7T 109.9T **Cleveland Dep Con** 121.0 124.5[6]

OHIO—*Continued*

ASR Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292.
Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.
ILS 109.9 I–CLE Apch Brg 055°
110.7 I–CEE[3] Apch Brg 278°
Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld
Cleveland RBn H–SAB 344●/CLE 070° 0.8 NM to fld
VHF/DF contact tower
Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]1000–0200Z. [6]For Cuyahoga County Arpt. **VOT:** 110.4.

CLINTON (T) VOR 113.2/ILN **FSS:** DAYTON
RBn MHW 219/ILN

COLUMBUS, OHIO STATE UNIVERSITY RBn MHW 348/OSU

§COLUMBUS, PORT COLUMBUS INTL ***IFR*** 6E **FSS:** COLUMBUS on Fld
816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28R **REIL:** Rnwys 10R, 28R.
Remarks: *(S–180, T–200, TT–400) avbl rnwy 10L–28R.
Due non-vsby some areas of fld, ctc twr. No service Sat 0830–1700.
Tower 126.2 121.1 109.1T **Gnd Con** 121.9
Clrnc Del 121.3
Radar Services: (BCN)
App Con 119.0 126.2 125.4 122.5R 109.5T 3023.5R
Dep Con 120.5 126.2
ASR Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.
Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.
ILS[1] 109.1 1–CBP Apch Brg 096° **LOM:** 271/CB
109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM
RBn BH 391/CMH 070° 1.0 NM to fld
Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM.
VHF/DF Ctc twr.
ASR apchs unavbl til Aug. **VOT:** 111.0

CUYAHOGA RBn MHW 275/CUC **FSS:** CLEVELAND

DAYTON
§JAMES M COX-DAYTON MUNI ***IFR*** 9N **FSS:** DAYTON on Fld
1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: P-line SE. 1096′ TV twr 10NM S.
Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 125.2
Radar Services: (BCN)
Dayton App Con 118.0 126.5 122.7R 111.6T 110.3T
Dayton Dep Con 119.9
ILS[1] 110.3 1–DAY Apch Brg 056° **LOM:** 356/DA
Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.
Remarks: **VOT:** 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI **FSS:** FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY **FSS:**FINDLAY
RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO **FSS:** FINDLAY
Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL **FSS:** CLEVELAND

HAMILTON RBn MHW 260/HAO **FSS:** CINCINNATI

HUBBARD RBn MHW 408/HBD **FSS:** YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN **FSS:** YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA **FSS:** FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK **FSS:** COLUMBUS

MADEIRA RBn MHW 379/MDE

OHIO—*Continued*

§MANSFIELD MUNI ***IFR*** 3N **FSS:** MANSFIELD on Fld
1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32
Tower 119.3 122.5R 110.5T **Gnd Con** 121.9
App Con 124.7 122.5R 110.5T 108.8T
ILS 110.5 1–MFD Apch Brg 320° **LOM:** 374/MF
(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.
RBn MHW 374/MF 320° 4.0 NM to fld.
Remarks: LOM is MHW.

MARION RBn MHW 203/MNN **FSS:** MANSFIELD

MIDDLETOWN RBn MHW 239/MWO **FSS:** DAYTON

MONTGOMERY CO. (T) VORW 110./MGY **FSS:** DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW **FSS:** ZANESVILLE

PATTERSON (T) VOR 111.6/FFO **FSS:** DAYTON
RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD **FSS:** DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY **FSS:** CLEVELAND

§SPRINGFIELD MUNI ***IFR*** 5S **FSS:** DAYTON (LC FA 2–4562)
1049 H90/5–23(3) (S–190, T–200, TT–380) BL4 S5 F4, JP4
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245–2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM **FSS:** CLEVELAND

STRONGSVILLE (L) VOR 112.0/STG **FSS:** CLEVELAND

TIPP CITY RBn MHW 212/TPC **FSS:** DAYTON

TIVERTON (L) BVOR 116.5/TVT **FSS:** MANSFIELD

§TOLEDO EXPRESS ***IFR*** 9SW **FSS:** FINDLAY (LC 242–4171)
684 H87/7–25(2) (S–107, T–163, TT–287) BL5,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 7
Remarks: First 300′ N end and 1000′E end rnwy 17–35 clsd; usable length 4300′.
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084.
Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I–TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV **FSS:** TOLEDO

WILLOUGHBY
§LOST NATION ***IFR*** 2 N **FSS:** CLEVELAND (DL)
626 H50/9–27(2) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W. Rnwy 5 threshold displaced 200′ NE. 4800′ avbl lndg rnwy 5, tkof rnwy 23. 5000′ avbl lndg rnwy 23, tkof rnwy 5.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°–089° [2]090°–269° [3]Oper 0230–1430Z.

§YOUNGSTOWN MUNI ***IFR*** 10 N **FSS:** YOUNGSTOWN on Fld
1196 H75/14–32(3) (S–116, T–160, TT–270) BL4, 6, 8A, 9 S5 F4 TP1 U2 **RVV:** Rnwy 32

OHIO—*Continued*

Remarks: Rnwy 9-27 rnwy lgts inop.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I-YNG Apch Brg 320° **LOM:** 338/YN
(L) BVOR-DME[1] 109.0/YNG 183° 4.1 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]To be BVORTAC Sep 15.

ZANESVILLE (L) BVORTAC 111.4/ZZV FSS: ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS
RBn HW 410/LTS FSS: HOBART

ARDMORE (L) BVORTAC 116.7/ADM FSS: ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO FSS: TULSA

CLINTON (L) VOR 111.2/CSM FSS: HOBART
RBn MHW 320/CSM

DUNCAN (L) BVOR 111.0/DUC FSS: ARDMORE

GAGE (H) BVORTAC 115.6/GAG FSS: GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR FSS: HOBART

KINGFISHER (L) BVORTAC 114.2/IFI FSS: OKLAHOMA CITY

§LAWTON MUNI *IFR* 2 S FSS: WICHITA FALLS (LC EL5-1323)
1109 H54/17-35(1) (S-50, T-75, TT-135) BL4 S5 F5 JPI U-2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.7R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230-0430Z.

McALESTER (L) BVORTAC 112.0/MLC FSS: McALESTER

MUSKOGEE RBn MHW 306/MKO FSS: TULSA (DL)

OKLAHOMA CITY
§WILEY POST *IFR* 7 NW FSS: OKLAHOMA CITY (DL)
1303 H54/17-35(3) (S-15, T-20, TT-30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200-0400Z.

§WILL ROGERS WORLD *IFR* 6W FSS: OKLAHOMA CITY on fld
1284 H98/17R-35L(4) (S-100, T-180, TT-350) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3-21 and txwy (C-1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr.
Tower 118.′3 126.2R 122.7R 109.9T **Gnd Con** 121.9
ATIS: 109.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I-OKC Apch Brg 351° **LOM:** 219/Ok

OKLAHOMA—*Continued*

Oklahoma City (H) BVORTAC 115.0/OKC 098° 8.1 NM to rnwy 12.
Oklahoma City RBn H-SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM FSS: TULSA

OWASSO RBn MHW 317/DW FSS: TULSA

PAGE (L) BVOR 113.5/PGO CS/T: FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC FSS: PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO FSS: HOBART

STILLWATER (T) BVOR 108.4/SWO FSS: OKLAHOMA CITY (LC FR 2-4935)

TINKER AFB RBn HW 394/TIK FSS: OKLAHOMA CITY

TULAKES RBn MHW 406/TWO FSS: OKLAHOMA CITY

§TULSA INTL *IFR* 5NE FSS: TULSA on Fld
674 H100/17L-35R(5) (S-200, T-200, TT-400) BL4, 6, 8A, 9, 10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R
Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy.
Tower 118.7 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.2
ATIS[3] 114.4
Radar Services: (BCN)
App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7
Tfc Info Ctc App Con 25 mi out on 119.1
ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074
ILS 109.7 I-DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I-TUL[2] Apch Brg 355° **LOM:** 338/TU
(H) VORTAC 114.4/TUL 260° 4.3 NM to rnwy 26
RBn SBH 245/TUL 220° 0.9 NM to fld.
Remarks: [1]500-1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL; unusable for automatic apchs. Both systems not operd simultaneously. [3]Oper 1300-0300Z. **VOT:** 109.0

§TULSA RIVERSIDE *IFR* 5S FSS: TULSA
624 H40/18-36(1) BL4 S5 F4 U2
Remarks: Due non-vsby some areas of fld, ctc twr.
Tower:[1] 118.1 122.7R
Remarks: [1]Oper 1200-0400Z.

WOODRING (T) BVOR 109.0/ODG FSS: PONCA CITY

OREGON

ASTORIA (L) BVOR 114.0/AST FSS: HOQUIAM

BAKER (L) BVORTAC 115.3/BKE FSS: BAKER

CORVALLIS (L) BVOR 108.4/CVO FSS: EUGENE

EUGENE
§MAHLON-SWEET FLD *IFR* 7 NW FSS: EUGENE on Fld
365 H55/16-34(2) (S-80, T-120, T-190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16
Eugene Tower 118.9 122.5R **Gnd Con** 121.9
Eugene App Con 118.9 122.5R 112.9T 109.5T
ILS 109.5 I-EUG Apch Brg 159° **LOM:** 227/EU
Eugene (L) BVORTAC 112.9/EUG on fld

HILLSBORO
PORTLAND-HILLSBORO *IFR* 2NE FSS: PORTLAND (DL)
204 H40/2-20(2) BL4 S5 DT2
Tower 119.3 122.6R **Gnd Con** 121.7 122.6R
VFR ADV: Ctc Portland App Con

OREGON—*Continued*

JOHN DAY (H) BVOR 115.6/JDA **FSS:** BAKER

KLAMATH FALLS

§KINGSLEY FLD *IFR* 4 SE **FSS:** KLAMATH FALLS on Fld
4092 H103/14-32(3) (S-100, T-200, TT-380) BL4, 6,8A', 9' S5 F4, JP1 U2 DT2

Remarks: [1]Below FAA standards. 1000' overrun N end, 750' overrun S end rnwy 14-32.

Kingsley Tower 118.5 126.2 122.5R 269T **Gnd Con** 121.9

Radar Services: (BCN)

Klamath Falls App Con 119.4 126.2 122.5R

Klamath Falls Dep Con 124.1

Tfc Info Ctc App Con

ILS[1] 109.5 I-LMT Apch Brg 319° BC unusable **LMM:**269/MT

Klamath Falls (L) BVORTAC 115.9/LMT on fld

Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.

Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV **FSS:** KLAMATH FALLS

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§MEDFORD MUNI *IFR* 2 N **FSS:** MEDFORD on Fld
1330 H54/14-32(2) (S-80, T-120, TT-180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVV:** Rnwy 14

Remarks: Ngt fueling delay and surcharge 1800-0730 lcl time.

Tower 118.3 122.5R **Gnd Con** 121.9

App Con 119.8 110.3T 113.6T

ILS[1] 110.3 I-MFR Apch Brg 141° **LOM:** 394/MF

(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.

RBn SBH 263/MFR 161° 2.1NM to fld.

VHF/DF Ctc twr or FSS.

Remarks: [1]ILS not certified for automatic apchs. [2]VHF/DF coverage 40 NM at MEA excp 360-015°, 9000'; 015-030°, 10,000'; 030-057°, 11,000'; 120-210°, 13,500'; 315-350°, 8000'; 350-360°, 8500'; 057-075°, 30 NM at 11,000'; 075-120°, 30 NM at 13,500'; 210-225°, 30 NM at 12,000'; 225-250°, 30 NM at 10,500'.

NEWBERG (H) BVORTAC 117.4/UBG **FSS:** PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP **FSS:** EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH **FSS:** NORTH BEND

RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO **FSS:** BOISE

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§PENDLETON MUNI *IFR* 2 NW **FSS:** PENDLETON on Fld
1493 H63/7L-25R(4) (S-70, T-100, TT-170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25

Remarks: Rnwy 25L threshold displaced 821'W. 2029' avbl lndg rnwy 25L, 7R-25L dalgt operns only lgt planes.

Tower 118.7 122.5R **Gnd Con** 121.9

App Con 118.7 114.7T 341T

ILS 110.3 I-PDT Apch Brg 250° **LOM:** 236/PD

(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.

RBn SABH 341●/PDT 259° 1.7 NM to fld

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§PORTLAND INTL *IFR*..4 NE **FSS:** PORTLAND on Fld
26 H88/10R-28L(3) (S-100, T-200, TT-400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R

Tower 118.7 126.2 122.7R **Gnd Con** 121.9

Clrnc Del 119.0

Radar Services: (BCN)

App Con 118.1[2] 126.2 122.7R 119.8[3] 109.9T

Dep Con 124.9

Tfc Info Ctc App Con

PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226

ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726

Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826

ILS 109.9 I-PDX Apch Brg 098° BC restricted **LMM:** 201/DX

111.3 I-IAP Apch Brg 278° **LOM:** 383/IA

(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.

BRn SABH 332●/PDX 155° 2.9 NM to fld.

VHF/DF Ctc twr.

Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070-289°. [3]290-069°. **VOT:** 111.0.

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§PORTLAND-TROUTDALE *IFR* Adj NW **FSS:** PORTLAND (DL)
36 H46/7-25(1) (Max 20) BL 4 S5 F4 U2 DT2

RVV: Rnwy 7

Remarks: Rnwy 7 threshold displaced 400' E. 4241' avbl lndg rnwy 7. Rnwy 25 threshold displaced 500'W. 4141' avbl lndg rnwy 25.

Troutdale Tower[3] 120.5 122.5R **Gnd Con** 121.7

Radar Services:

Portland App Con 118.1[1] 119.8[2]

Portland Dep Con 124.9

Remarks: [1]070-289° [2]290-069°. [3]Oper 1500-0700Z.

REDMOND (L) BVORTAC 117.6/RDM **FSS:** REDMOND

RBn H-SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO **FSS:** BAKER

ROSEBURG (L) BVOR 108.2/RBG **FSS:** EUGENE

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§SALEM-MCNARY FLD *IFR* 1 SE **FSS:** PORTLAND (DL)
207 H58/13-31(2) (S-50, T-75, TT-110) BL4, 6 S5 F4 U1 DT2 **RVV:** Rnwy 31

Remarks: Rnwy 16-34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins.

ILS[1] 110.3 I-SLE Apch Brg 309° **LOM:** 266/SL

Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY **FSS:** PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS **FSS:** THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON *IFR* 3 NE **FSS:** ALLENTOWN on Fld
388 H62/6-24(4) (S-55, T-76, TT-125) BL4,6,8A,9 S5 F4 JP1 U2 DT2 **RVR:** Rnwy 6

Remarks: 5210' avbl lndg rnwy 24. Rnwy 14-32 open for ngt opern 2415' btn threshold lgts plus 175' of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.

Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9

Clrnc Del 121.9

Allentown App Con 118.2 122.5R 117.5T 110.7T 321T

ILS 110.7 I-ABE Apch Brg 061° **LOM:** 400/AB

Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld

Allentown Rng SBMAZ[1] 321/AE 195° 2.5 NM to fld.

Remarks: [1]Reliable reception distance 40 NM.

ALTOONA (T) BVOR 108.8/AOO **FSS:** ALTOONA

AMBLER RBn MHW 275/ING **FSS:** PHILADELPHIA

Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD **FSS:** BRADFORD

RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP **FSS:** PITTSBURGH

CARROLLTOWN (L) BVORTAC 110.6/CLN **FSS:** ALTOONA

CLARION (L) BVOR 112.9/CIP **FSS:** DU BOIS

COATESVILLE RBn MHW 262/CVE **FSS:** PHILADELPHIA

CREEK RBn MHW 219/CRK **FSS:** PITTSBURGH

CRYSTAL LAKE RBn MHW 392/CYE **FSS:** WILKES-BARRE

DU BOIS RBn BH 356/DUJ **FSS:** DU BOIS

EAST TEXAS (L) BVORTAC 110.2/ETX **FSS:** DU BOIS

PENNSYLVANIA—*Continued*

ELLWOOD CITY (H) BVORTAC 115.8/EWC **FSS:** PITTSBURGH

ERIE

§PORT ERIE *IFR* 5 SW .. **FSS:** ERIE on Fld
732 H50/6–24(3) (S–75, T–115, TT–) BL4, 6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Erie Tower: 118.1 122.5R **Erie Gnd Con** 121.9
Erie App Con 119.0 118.4[1] 122.5R
ILS 110.3 I–ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

FRANKLIN (L) BVOR 109.6/FKL **FSS:** YOUNGSTOWN
RBn MHW 233/FKL

§HARRISBURG-YORK STATE *IFR* 3 S **FSS:** HARRISBURG on Fld
347 H50/8–26(3) (S–65, T–105, TT–185) BL4, 6, 8A, 9 S5
F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26. Fence SE. Chimney SSW.
Harrisburg Tower 119.5 126.2 122.5R 109.1T
Gnd Con 121.9
Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447. Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I–HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMARZ[1] 338/HR 118° 0.9 NM to fld.
Remarks: [1]Reliable reception distance 40 NM.

HAZELTON (T) BVOR 109.4/HZL **FSS:** WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200–2400Z by City.

IMPERIAL (L) BVORTAC 109.4/IRL **FSS:** PITTSBURGH

INDIANA RBn MHW 242/INP **FSS:** ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/HD **FSS:** MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST **FSS:** ALTOONA

KEATING (L) BVOR 114.7/ETG **FSS:** PHILIPSBURG

§LANCASTER *IFR* 5N **FSS:** HARRISBURG (LC 392–0881)
403 H50/8–26(2) (S–77, T–107, TT–) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
Rbn MHW 326/LRP
Remarks: [1]Oper 1200–0400Z.

LATROBE (T) VORW 108.2/LBE **FSS:** PITTSBURGH

MCKEESPORT RBn MHW 287/MKP **FSS:** PITTSBURGH

MILTON (L) BVORTAC 109.2/MIP **FSS:** WILLIAMSPORT

PHILADELPHIA

§ NORTH PHILADEPHIA *IFR* 10 NE **FSS:** PHILADELPHIA on Fld
120 H50/6–24(2) (S–120, T–200, TT–) BL4, S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]270–089° [2]090–269°

PENNSYLVANIA—*Continued*

§PHILADELPHIA INTL *IFR* 5 SW **FSS:** PHILADELPHIA (DL)
14 H95/9–27 (3) (S–120, T–200, TT–400) BL4, 6, 8A, 9 S5
F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: Fence E, NE. Constrn vcnty rnwy 27.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
ILS 109.3 I–PHL Apch Brg 085°. **LOM:** 237/PH
VHF/DF Ctc twr.
Remarks: [1]270–089° [2]090–269°. **VOT:** 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB **FSS:** PHILIPSBURG
RBn MHW 236/PSB

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PITTSBURGH

§ALLEGHENY COUNTY *IFR* 4 S **FSS:** PITTSBURGH on Fld
1252 H55/9–27(3) (S–70, T–120, TT–210) BL6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30
Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7
Radar Services: (BCN)
Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]
Pittsburgh Dep Con 125.9
ILS 109.1 I–AGC Apch Brg 275° BC unusable
(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld
RBn H–SAB 254●/AGC 082° 2.0 NM to fld
Remarks: [1]270–089° [2]090–269°

§GREATER PITTSBURGH *IFR* 12 NW **FSS:** PITTSBURGH (DL)
1203 H105/10L–28R(4) (S–120, T–200, TT–400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32
Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. US Customs lndg rts arpt.
Pittsburgh Tower 119.1 126.2 122.7R 110.3T
‡Clrnc Del 121.3 **Gnd Con** 121.9
Radar Services: (BCN)
Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]
Pittsburgh Dep Con 125.9
Tfc Info Ctc Radar App Con on 124.15 when approaching from NW & NE, and on 118.7 from SE & SW.
PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1368
ASR Rnwys 5,14,23.28R,32 Ceil 500 Vsby 1 mi Min Alt 1703
Rnwy 10L, 10R, 28L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I–GPB Apch Brg 277° BC unusable **LOM:** 323/GP
111.7 I–LXB Apch Brg 097° BC unusable.
VHF/DF Ctc twr.
Remarks: [1]270–089° [2]090–269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POOTSTOWN (L) BVORTAC 116.5/PTW **FSS:** PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING

§GENERAL SPAATZ FIELD *IFR* 2NW **FSS:** HARRISBURG (LC 376–3045)
343 H51/18–36(3) (S–30, T–45, TT–175) BL4, 6, 7, 12 S5
F4, JP4 U2 DT2
Remarks: Rgt tfc rnwys 5, 13, and 36.
Reading Tower 119.9 126.2 122.5R 109.5T
Gnd Con 121.9
Reading App Con 119.9 126.2 122.5R 109.5T
ILS 109.5 I–RDG Apch Brg 001° BC unusable **LOM:** 269/RD
VHF/DF Ctc twr.

PENNSYLVANIA—*Continued*

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

TOBYHANNA RBn MHW 410/TSD **FSS:** WILKES BARRE

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** PHILADELPHIA

§WILKES-BARRE-SCRANTON *IFR* 9 NE **FSS:** WILKES BARRE on Fld
956 H52/4-22 (3) (S–100, T–140, TT–) BL4–6,8A,9 F5, JP4 DT2 **RVV:** Rnwy 4
Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.
FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.
Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Wilkes-Barre App Con 124.5 122.5R 109.9T
Wilkes-Barre Dep Con 126.3
ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956
Rnwy 10,22 Ceil 900 Vsby 1 mi Min Alt 1856
ILS[1] 109.9 I–AVP Apch Brg 043° BC unusable **LOM:** 257/AV
Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

§WILLIAMSPORT-LYCOMING CO *IFR* 4 E **FSS:** WILLIAMSPORT on Fld
528 H50/9-27 (3) (S–40, T–60, TT–) BL4,6,8A,9 S5 F4, JP1 DT2
Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15–33 open to acft 12,500 lbs and under. Rnwy 12-30 (Max–200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW.
Williamsport Tower 119.1 122.5R
Williampsort Gnd Con 121.9
Williampsort App Con 124.9 122.5R
ILS 110.1 I–IPT Apch Brg 266° BC unusable **LMM:** 281/PT
Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO **FSS:** BOSTON

PROVIDENCE
§GREEN *IFR* 6 S **FSS:** PROVIDENCE on Fld
56 H54/5R-23L(4) (S–94.5, T–143, TT) BL5,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 5R
Remarks: Fee. No mult engine lndgs 5L, no tkofs 23R.
Providence Tower 120.7 122.5R 109.3T 368T
Gnd Con 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.3 I–PVD Apch Brg 046° BC unusable **LOM:** 368/PV
Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

ANDERSON (L) BVORTAC 108.6/AND **FSS:** ANDERSON

SOUTH CAROLINA—*Continued*

§CHARLESTON AFB/MUNI *IFR* 9 NW **FSS:** CHARLESTON on Fld
45 H90/15–33 (2) (S–100, T–140, TT–250) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15
Tower 121.0 122.5 126.2 113.5T 109.7T **Gnd Con** 121.9
Clrnc Del 121.7
Radar Services:
App Con 119.3 118.5 113.5T 109.7T
Dep Con 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.
PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445
Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245
Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445
ILS[1] 109.7 I–CHS Apch Brg 149° BC unusable **LOM:** 329/CH
(H) BVORTAC 113.5/CHS on fld.
RBn H–SAB 329●/CH
VHF/DF Ctc FSS
Remarks: LOM is H–SAB. **VOT:** 111.0.

CHESTERFIELD (L) BVOR 108.2/CTF **FSS:** FLORENCE

COLUMBIA
§COLUMBIA METROPOLITAN *IFR* 5SW
FSS: FLORENCE (LC 254–9791)
236 H75/10–28(2) (S–45, T–130, TT–270) BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10
Remarks: Rnwy 5–23 (S–45, T–170, TT–320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.
Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
App Con 118.2 122.5R 114.7T 110.3T 227T
ILS 110.3 I–CAE Apch Brg 107° BC unusable **LOM:** 356/CA
(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.

§OWENS FIELD 1SE **FSS:** FLORENCE (LC 254–9791)
203 H36/15–33(2) (S–30) L4 S5 F4 U1
Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.
Tower[1] 126.2 122.5R
Columbia App Con 118.2 122.5R 110.3T 227T
Remarks: [1]AAS—Oper weekdays 1230–1630Z and 1745–2115Z. Sats 1230–1600Z.

CONWAY RBn HW 269/MTL **FSS:** FLORENCE

FLORENCE (H) BVORTAC 115.2/FLO **FSS:** FLORENCE

FORT MILL (L) BVOR 112.4/FML **FSS:** HICKORY

GREENVILLE
§GREENVILLE MUNI DOWNTOWN *IFR* 2 E **FSS:** GREER
1047 H54/18-36 (3) (S–21, T–30, TT–60) BL4,6 S5 F4, JP1 U2
Remarks: Rgt tfc rnwys 18, 27, 23.
Tower[2] 119.9 126.2 122.5R 109.7T 391T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.0 124.3 122.5R 119.4 109.7T
Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.
ILS[1] 109.7 I–GRL Apch Brg 002° BC unusable **LOM:** 272/GR
Remarks: [1]Glide slope unusable below 1347′ MSL [2]Oper 1200–0400Z.

GREENWOOD (L) BVORTAC 114.9/GRD **FSS:** ANDERSON

GREER
§GREENVILLE-SPARTANSBURG *IFR* 3 S **FSS:** GREER on Fld
972 H76/3-21 (2) (S–120) BL6,8A,9, 14,15 S5 F5, JP5 U2 **RVV:** Rnwy 3
Remarks: Fee commercial only.

SOUTH CAROLINA—*Continued*

Greer Tower 120.1 126.2 122.7R 115.7T 109.3T 209T
Gnd Con 121.8
Radar Services: (BCN)
Greenville App Con 118.0 126.2 124.3 122.5R 119.4 109.7T
Greenville Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.
ILS 109.3 I–GSP Apch Brg 033° **LOM:** 287/GS
VHF/DF Ctc FSS.
Remarks: [1]Oper 1200–0400Z.

MYRTLE BEACH (L) BVOR 117.6/CRE **FSS:** FLORENCE

SHAW AFB (L)VOR 109.2/SSC **FSS:** FLORENCE
RBn HW 375/SW

§SPARTANSBURG DOWNTOWN MEMORIAL *IFR* 2SW
FSS: GREER (LC 585–5470)
816 H52/4–22(3) (S–56) BL4, 6 S5 F5, JP1, JP5
Tower[1] 118.3 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Greenville App Con 124.3
Greenville Dep Con 118.8
(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H–SAB 248●/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100–0300Z.

VANCE (L) BVOR 110.4/VAN **FSS:** CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR **FSS:** ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR **FSS:** PIERRE

ELLSWORTH (L) BVOR 110.8/RCA **FSS:** RAPID CITY

HURON
§HOWES MUNI *IFR* 1NW **FSS:** HURON on Fld
1287 H51/12–30(2) (S–50, T–75, TT–132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17–35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 I–HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM **FSS:** DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE **FSS:** HURON
Remarks: VFR use only.

PHILIP (L) BVOR 108.4/PHP **FSS:** PIERRE

PIERRE (L) BVORTAC 112.5/PIR **FSS:** PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

§RAPID CITY MUNI *IFR* 8SE **FSS:** RAPID CITY on fld
3181 H62/14–32(2) (S–63, T–85, TT–140) BL6,11 S5 F4 U2
JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld.
RBn SABH 254/RAP 102X 1.7 NM to fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

SOUTH DAKOTA—*Continued*

SIOUX FALLS
§JOE FOSS FIELD *IFR* 2NW **FSS:** HURON (DL)
1428 H90/3–21(3) (S–85, T–120, TT–220) BL4,6,8A,9,11 S5
F5 JP1 U2 **RVV:** Rnwys 3, 21 **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9–27 clsd acft over 30,000 lbs. First 300′ rnwy 27 unusable tkof. Usable length 5392′.
Foss Tower 118.3 122.5R **Gnd Con** 121.9
Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 1–FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

WATERTOWN (L) BVORTAC 116.6/ATY **FSS:** WATERTOWN

WINNER (L) BVOR 112.8/ISD **FSS:** PIERRE

YANKTON (L) BVOR 111.4/YKN **FSS:** HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW **FSS:** TRI·CITY on Fld
1519 H66/4–22(2) (S–95, T–125, TT–215) BL6,8A,9 S5
F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 119.5 126.2
ILS[1] 109.9 I–TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 500 Vsby ¾ mi Min Alt 2019
Remarks: [1]Glide slope unusable below 2019′ MSL. Lclzr unusable above 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME **FSS:** MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E **FSS:** CROSSVILLE (LC 267–5343)
682 H62/2–20(2) (S–90, T–120, TT–) BL4,6,8A,9,10
S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanoga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I–CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn HW 341/CQN 196° 7.7 NM to fld.
Remarks. [1]016–196° [2]197–015° Glide slope unusable below 882′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV **FSS:** NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV **FSS:** CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR **FSS:** DYERSBURG

GRAHAM (L) BVOR 111.6/GHM **FSS:** NASHVILLE

HARDEE RBn MHW 281/MKL
Remarks: Privately owned.

HIGHWAY (L) BVOR 108.4/HIY **FSS:** CROSSVILLE

TENNESSEE—*Continued*

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE
§McGHEE-TYSON ***IFR*** 11S **FSS:** KNOXVILLE on Fld
989 H90/4L-22R(3) (S-84, T-90, TT-200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services:
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I-TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H-SAB[1] 281●/TYS 200X 2.6 NM to fld
VHF/DF Ctc twr.
Remarks: [1]AB 1000-0300Z. **VOT:** 112.0.

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§MEMPHIS METROPOLITAN ***IFR*** 3S **FSS:** MEMPHIS on Fld
331 H89/9-27(4) (S-105, T-150, TT-240) BL4,6,8A,9,10,15 S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwys 3-21 & 14-32 (S-100). Rnwy 17-35. (S-110, T-150, TT-270). 3816′ avbl Indg & tkoff both directions rnwy 14-32. 1088′ (1340′ MSL) twr 9 NM NNE. 1078′ (1333′ MSL) twr 10 NM NE. 1077′ (1349′ MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 126.2 122.5R 118.3 115.5T 110.5T 109.5T
Gnd Con 121.9
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I-MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I-TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn SBH 371/TS 354° 4.7 NM to fld
VHF/DF Ctc FSS
Remarks: [1]077-271° [2]272-076° [3]Glide slope unusable below 400′ MSL. [4]LOM is Brooks MHW. [5]LOM is SBH. [6]Glide slope unusable below 350′ MSL. **VOT:** 111.0

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§NASHVILLE METROPOLITAN ***IFR*** 5SE **FSS:** NASHVILLE on Fld
597 H80/13-31(3) (S-76, T-130, TT-220) BL4,6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 2L
Remarks: Rnwy 2R-20L-240′ overrun N end; 1185′ S end; rnwy 2L-20R-1065′ overrun S end; rnwy 13-31-1000′ overrun SE and NW end. 1368.5′ (2049′ MSL) twr 8.5 NM W. 1179′ (2049′ MSL) 9 NM NNW.
Berry Tower 126.2 122.5R 119.1 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I-BNA Apch Brg 016° **LOM:**304/BN
Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.
Nashville RBn H-SAB[2] 304●/BN 016° 5.0 NM to rnwy 2L.
VHF/DF Ctc twr.
Remarks: [1]Main 1200′ til 2 mi from end of rnwy on final to rnwy 20R. LOM is H-SAB. [2]AB 0500-2200. **VOT:** 112.0.

TENNESSEE—*Continued*

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 298/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT

TEXAS

§ABILENE MUNI ***IFR*** 3SE **FSS:** ABILENE on Fld
1778 H60/17-35(2) (S-70, T-89, TT-145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35
Remarks: NW-SE txwy used by lgt acft for Indg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmit 122.5 and receive 124.1 mc 20 mi out.
Tower[1] 120.1 122.7R 110.3T 126.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0
Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB
(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.
Remarks: [1]Opers 0600-2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

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§AMARILLO AFB/MUNI ***IFR*** 8E **FSS:** AMARILLO on Fld
3605 H135/3-21(2) (S-65, T-330, TT-470) BL6,8A,9,10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21
Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100′ MSL. Overhead tfc ptn 5400′ MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.
Tower 126.2 122.5R 118.3 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T
Dep Con 119.5
Tfc Info Ctc App Con 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005.
Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105
ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM
(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.
RBn SABH 251●/AMA 109° 1.3 NM to fld.
Remarks: [1]Glide slope unusable below 3905′ MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN
§MUELLER MUNI ***IFR*** 2NE **FSS:** AUSTIN on Fld
632 H73/12R-30L(5) (S-74, T-100, TT-159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVV:** Rnwy 30L
Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844′ SE. 6400′ avbl Indg rnwy 12R. Rnwy 16R threshold displaced 589′ S. 4406′ avbl Indg rnwy 16R. 1137′ (2049′ MSL) twr 5 NM W. 1199′ (2049′ MSL) twr 7 NM W.
Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Austin App Con 124.9 118.8 122.7R 112.5T
Austin Dep Con 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
Tfc Info Contact App Con 25 mi out on 118.8.
ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU
Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.
Austin RBn MHW 353/AU 305° 4.8 NM to fld.
Remarks: LOM is MHW.

TEXAS—*Continued*

BEAUMONT-PORT ARTHUR
§JEFFERSON CO *IFR* 9SE **FSS:** BEAUMONT on Fld
16 H57/11-29(3) (S–65, T–91, TT–170) BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16
Remarks: (S–83, T–118, TT–212) avbl rnwy 16–34.
Tower 119.5 122.5R **Gnd Con** 121.9
Beaumont App Con 121.3 122.5R 114.9T
ILS 109.5 I–BPT Apch Brg 114° **LOM:** [2]257/BP
Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.
RBn[1] **MHW** 368/BEM
Remarks: [1]VFR use only. [2]LOM unusable beyond 8 NM.

BEEVILLE **FSS:** ALICE
§CHASE (NAAS) FLD 45E
186 H80/13R-31L(3) BL4,6,7
Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.
Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO **FSS:** FORT WORTH

BERGSTROM (L) VORW 109.8/BSM **FSS:** AUSTIN
RBn HW 293/BSM

BIGGS RBn HW 400/BIF **FSS:** EL PASO

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326 /BGS

BORGER (L) BVOR 108.6/BGD **FSS:** AMARILLO

BRAZOS SANTIAGO RBn HW 314/PIL **FSS:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE
§RIO GRANDE VALLEY INTL *IFR* 4E AOE **FSS:** BROWNSVILLE on Fld 22 H74/13R-31(5) (S–26, T–50, TT–87) BL4,6,7 S5 F5, JP1 JP4 U2
Remarks: Brush apch 31L. Trees apch rnwy 35R. Rnwy 17R–35L: (S–35, T–56, TT–108). Rnwys 8–26 and 4–22 do not meet air carrier standards for day/ngt operns. No lgts rnwys 13R–31L and 8–26.
Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I–BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 114.7/ARO **FSS:** AMARILLO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR **FSS:** ALICE

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION
§EASTERWOOD FIELD *IFR* 2SW **FSS:** COLLEGE STATION on Fld
319 H51/10-28(3) (S–30, T–40, TT–) BL4 S3 F4 JP1
Remarks: Services offered dalgt hrs only. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9
College Station App Con[2] 118.5 126.2
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: [1]Oper 1200–0400Z. [2]App Con from Houston ARTCC 0400–1200Z.

CONNALLY RBn MHW 400/CNW **FSS:** WACO

§CORPUS CHRISTI INTL *IFR* 5W **FSS:** ALICE (LC TU 4–5712)
43 H56/13–31(2) (S–96, T–108, TT–152) BL4,6,8A,9 S5 F4, TP–1 JP4 U2 **RVV:** Rnwy 13
Remarks: Amber flashing lgt for rgt ptn. US Customs–lndg rts arpt 0800–1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I–CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS
§ADDISON *IFR* 9N **FSS:** DALLAS (LC FL2-8491)
637 H52/15–33(2) (S–50, T–70, TT–120) BL4 S5 F5 JP1 U2
REIL: Rnwy 15
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°–307° [2]308°–126°.

§DALLAS LOVE FIELD *IFR* 5NW **FSS:** DALLAS on Fld
485 H88/13R-31L(3) (S–100, T–150, TT–350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R **RVR:** Rnwy 13L
Remarks: Rnwy 13R–31L limited to tkofs only. US Customs lndg rgts arpt 0030–1430 Mon-Fri, 0030–1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 126.2 122.5R 118.7 **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[3] 125.2 125.8[2] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I–DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°–307° [3]308°–126° [4]Glide slope unusable below *677′* MSL due roughness. BC unusable for automatic apchs. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

§RED BIRD *IFR* 6SW **FSS:** DALLAS (LC FL2–8491)
660 H44/13–31(2) (S–35, T–60, TT–110) BL4 S5 F4, JP1 U2
Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°–307° [2]308°–126° [3]Oper 1200–0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

TENNESSEE—*Continued*

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV FSS: TRI CITY

JACKS CREEK (L) BVORTAC 109.4/JKS FSS: JACKSON

KNOXVILLE

§McGHEE-TYSON ***IFR*** 11S FSS: KNOXVILLE on Fld
989 H90/4L-22R(3) (S-84, T-90, TT-200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services:
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I-TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H-SAB[1] 281●/TYS 200X 2.6 NM to fld
VHF/DF Ctc twr.
Remarks: [1]AB 1000-0300Z. **VOT:** 112.0.

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§MEMPHIS METROPOLITAN ***IFR*** 3S FSS: MEMPHIS on Fld
331 H89/9-27(4) (S-105, T-150, TT-240) BL4,6,8A,9,10,15 S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwys 3-21 & 14-32 (S-100). Rnwy 17-35. (S-110, T-150, TT-270). 3816' avbl lndg & tkoff both directions rnwy 14-32. 1088' (1340' MSL) twr 9 NM NNE. 1078' (1333' MSL) twr 10 NM NE. 1077' (1349' MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 126.2 122.5R 118.3 115.5T 110.5T 109.5T
Gnd Con 121.9
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I-MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I-TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn SBH 371/TS 354° 4.7 NM to fld
VHF/DF Ctc FSS
Remarks: [1]077-271° [2]272-076° [3]Glide slope unusable below 400' MSL. [4]LOM is Brooks MHW. [5]LOM is SBH. [6]Glide slope unusable below 350' MSL. **VOT:** 111.0

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§NASHVILLE METROPOLITAN ***IFR*** 5SE FSS: NASHVILLE on Fld
597 H80/13-31(3) (S-76, T-130, TT-220) BL4,6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 2L
Remarks: Rnwy 2R-20L-240' overrun N end; 1185' S end; rnwy 2L-20R-1065' overrun S end; rnwy 13-31-1000' overrun SE and NW end. 1368.5' (2049' MSL) twr 8.5 NM W. 1179' (2049' MSL) 9 NM NNW.
Berry Tower 126.2 122.5R 119.1 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I-BNA Apch Brg 016° **LOM:**304/BN
Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.
Nashville RBn H-SAB[2] 304●/BN 016° 5.0 NM to rnwy 2L.
VHF/DF Ctc twr.
Remarks: [1]Main 1200' til 2 mi from end of rnwy on final to rnwy 20R. LOM is H-SAB. [2]AB 0500-2200. **VOT:** 112.0.

TENNESSEE—*Continued*

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 298/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT

TEXAS

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§ABILENE MUNI ***IFR*** 3SE **FSS:** ABILENE on Fld
1778 H60/17-35(2) (S-70, T-89, TT-145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35
Remarks: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmit 122.5 and receive 124.1 mc 20 mi out.
Tower[1] 120.1 122.7R 110.3T 126.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0
Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB
(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.
Remarks: [1]Opers 0600-2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

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§AMARILLO AFB/MUNI ***IFR*** 8E **FSS:** AMARILLO on Fld
3605 H135/3-21(2) (S-65, T-330, TT-470) BL6,8A,9,10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21
Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100' MSL. Overhead tfc ptn 5400' MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.
Tower 126.2 122.5R 118.3 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T
Dep Con 119.5
Tfc Info Ctc App Con 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005.
Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105
ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM
(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.
RBn SABH 251●/AMA 109° 1.3 NM to fld.
Remarks: [1]Glide slope unusable below 3905' MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN

§MUELLER MUNI ***IFR*** 2NE **FSS:** AUSTIN on Fld
632 H73/12R-30L(5) (S-74, T-100, TT-159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVV:** Rnwy 30L
Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844' SE. 6400' avbl lndg rnwy 12R. Rnwy 16R threshold displaced 589' S. 4406' avbl lndg rnwy 16R. 1137' (2049' MSL) twr 5 NM W. 1199' (2049' MSL) twr 7 NM W.
Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Austin App Con 124.9 118.8 122.7R 112.5T
Austin Dep Con 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
Tfc Info Contact App Con 25 mi out on 118.8.
ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU
Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.
Austin RBn MHW 353/AU 305° 4.8 NM to fld.
Remarks: LOM is MHW.

TEXAS—*Continued*

BEAUMONT-PORT ARTHUR
§JEFFERSON CO *IFR* 9SE **FSS:** BEAUMONT on Fld
16 H57/11–29(3) (S–65, T–91, TT–170) BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16
Remarks: (S–83, T–118, TT–212) avbl rnwy 16–34.
Tower 119.5 122.5R **Gnd Con** 121.9
Beaumont App Con 121.3 122.5R 114.9T
ILS 109.5 I–BPT Apch Brg 114° **LOM:** [2]257/BP
Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.
RBn[1] MHW 368/BEM
Remarks: [1]VFR use only. [2]LOM unusable beyond 8 NM.

BEEVILLE **FSS:** ALICE
§CHASE (NAAS) FLD 45E
186 H80/13R–31L(3) BL4,6,7
Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.
Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO **FSS:** FORT WORTH

BERGSTROM (L) VORW 109.8/BSM **FSS:** AUSTIN
RBn HW 293/BSM

BIGGS RBn HW 400/BIF **FSS:** EL PASO

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326 /BGS

BORGER (L) BVOR 108.6/BGD **FSS:** AMARILLO

BRAZOS SANTIAGO RBn HW 314/PIL **FSS:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE
§RIO GRANDE VALLEY INTL *IFR* 4E AOE **FSS:** BROWNSVILLE on Fld 22 H74/13R–31(5) (S–26, T–50, TT–87) BL4,6,7 S5 F5, JP1 JP4 U2
Remarks: Brush apch 31L. Trees apch rnwy 35R. Rnwy 17R–35L: (S–35, T–56, TT–108). Rnwys 8–26 and 4–22 do not meet air carrier standards for day/ngt operns. No lgts rnwys 13R–31L and 8–26.
Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I–BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 114.7/ARO **FSS:** AMARILLO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR **FSS:** ALICE

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION
§EASTERWOOD FIELD *IFR* 2SW **FSS:** COLLEGE STATION on Fld
319 H51/10–28(3) (S–30, T–40, TT–) BL4 S3 F4 JP1
Remarks: Services offered dalgt hrs only. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9
College Station App Con[2] 118.5 126.2
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: [1]Oper 1200–0400Z. [2]App Con from Houston ARTCC 0400–1200Z.

CONNALLY RBn MHW 400/CNW **FSS:** WACO

§CORPUS CHRISTI INTL *IFR* 5W **FSS:** ALICE (LC TU 4–5712)
43 H56/13–31(2) (S–96, T–108, TT–152) BL4,6,8A,9 S5 F4, TP–1 JP4 U2 **RVV:** Rnwy 13

Remarks: Amber flashing lgt for rgt ptn. US Customs–Indg rts arpt 0800–1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I–CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS
§ADDISON *IFR* 9N **FSS:** DALLAS (LC FL2–8491)
637 H52/15–33(2) (S–50, T–70, TT–120) BL4 S5 F5 JP1 U2
REIL: Rnwy 15
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°–307° [2]308°–126°.

§DALLAS LOVE FIELD *IFR* 5NW **FSS:** DALLAS on Fld
485 H88/13R–31L(3) (S–100, T–150, TT–350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R
RVR: Rnwy 13L
Remarks: Rnwy 13R–31L limited to tkofs only. US Customs Indg rgts arpt 0030–1430 Mon-Fri, 0030–1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 126.2 122.5R 118.7 **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[2] 125.2 125.8[3] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I–DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°–307° [3]308°–126° [4]Glide slope unusable below 677′ MSL due roughness. BC unusable for automatic apchs. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

§RED BIRD *IFR* 6SW **FSS:** DALLAS (LC FL2–8491)
660 H44/13–31(2) (S–35, T–60, TT–110) BL4 S5 F4, JP1 U2
Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:**. 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°–307° [2]308°–126° [3]Oper 1200–0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

TEXAS—*Continued*

DYESS (L) VOR 109.2/DYS **FSS:** ABILENE

RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

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§EL PASO INTL *IFR* 4NE (AOE) **FSS:** EL PASO on Fld

3956 H120/4–22(3) (S–95, T–156, TT–280) BL4,5,6,8A,9,11 S5 F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26

Remarks: Rnwy 4 threshold displaced 1000′ NE. 11,000′ avbl lndg rnwy 4. Rnwy 17 threshold displaced 395′ S. 6606′ avbl lndg rnwy 17.

Tower 118.3 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T

Dep Con 119.1

ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356

ILS[1] 109.5 I–ELP Apch Brg 218° **LOM:** 266/EL

(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.

RBn H–SAB 242●/ELP 258° 3.2 NM to fld.

Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH

§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE **FSS:** FORT WORTH (DL)

568 H90/17–35(2) (S–83, T–120, TT–210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13

Remarks:1074′ (1679′ MSL) twr 10.5 NM WSW.

Southwest Tower 120.5 126.2 122.7R **Gnd Con** 121.8

Radar Services:

Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T

Fort Worth Dep Con 123.9 122.7R

Tfc Info Ctc App Con 25 NM out on 118.1

ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968

ILS 109.5 I–GSW Apch Brg 129° **LOM:** 219/GS

Greater Southwest (L) BVORTAC 110.6/GSW at fld.

VHF/DF[1] Ctc twr.

Remarks: [1]VHF/DF inop til Oct 27. **VOT:** 111.8.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld

692 H52/17–35(3) (S–60, T–80, TT–) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17

Remarks: P-line SE.

Tower[1] 126.2 122.7R 118.3 **Gnd Con** 121.9

Radar Services:

Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T

Fort Worth Dep Con 123.9 122.7R

ILS 109.9 I–FTW Apch Brg 174° **LOM:** 365/FT

Fort Worth RBn H–SAB[2] 365●/FT 174° 3.5 NM to rnwy 17

Remarks: [1]Oper 1200–0400Z. Wea bcsts discontd 2400–0500 excp forecast. LOM is H–SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON

RBn HH–SAB[1] **206●/GLS**

Remarks: [1]Ctld by Houston FSS.

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK **FSS:** COLLEGE STATION

GREENVILLE

§MAJORS FIELD *IFR* 4SE **FSS:** DALLAS

544 H80/17–35(2) S–26, T–50, TT–) BL4 S5 F4

Remarks: Rgt tfc rnwy 17.

TEXAS—*Continued*

Tower[1] 121.3 122.5R **Gnd Con** 121.7

Remarks: [1]Oper 1330–2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE

HOOD (L) VORW 111.8/HLR **FSS:** COLLEGE STATION

RBn MHW 347/HLR

HOUSTON

§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld

48 H76/3–21(2) (S–75, T–107, TT–185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12

Remarks: US Customs lndg rgts arpt 0800–1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12–30, 3–21 not usable for lndgs or taxg acft; usable rnway pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.

Tower 118.7 126.2 122.5R **Gnd Con** 121.9

‡Clrnc Del: 127.6

ATIS 119.7

Radar Services:

App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T

Dep Con 120.2 126.2

Tfc Info Ctc App Con 25 mi out on 119.1 or 118.1

ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448 Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548

ILS 109.9 1–HOU Apch Brg 036° **LOM:** 251/HO

Houston (H) BVORTAC 115.9/HOU on fld.

VHF/DF Ctc twr.

Remarks: [1]218°–008° [2]009°–217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/IDU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

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§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN

1515 H63/17–35(1) L4,11 F4 U1 **REIL:** Rnwy 35

Tower[1] 126.2

Radar Services:

Austin App Con 124.9 118.8 122.7R

Austin Dep Con 120.8

RBn MH 393/JCY 346° 2 NM to fld.

Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (H) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

KELLY (L) VORW 113.8/SKF **FSS:** SAN ANTONIO

RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI **FSS:** ALICE

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§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2–3612)

524 H49/15–33(1) (S–25, T–37, TT–) BL4 S3 F4 U1

Remarks: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T.

VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.

(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.

LAUGHLIN (L) VOR 114.4/DLF **FSS:** SAN ANTONIO

RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FSS:** SAN ANTONIO

LEONA (L) BVORTAC 110.8/LOA **FSS:** COLLEGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

TEXAS—*Continued*

LONGVIEW

§GREGG COUNTY MUNI *IFR* 6SE **FSS:** GREGG COUNTY on Fld 365 H61/17-35(3) (S-75, T-100, TT-) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13

Tower 118.9 122.5R **Gnd Con** 121.9

ILS 109.5 I-GGG Apch Brg 127° **LOM:** 410/GG

Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

§LUBBOCK MUNI *IFR* 4NE **FSS:** LUBBOCK on Fld 3269 H85/17R-35L(5) (S-90, T-150, TT-250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R

Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl lndg rnwy 35L, 8500′ avbl lndg rnwy 17R. Clsd to tactical mil jet acft.

Tower 119.9 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.1 125.8 112.9T 109.5T 110.8T

Dep Con 119.3

ASR [1]Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Alt 3669

ILS 109.5 I-LBB Apch Brg 169° **LOM:** 219/LB

(L)BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12

Remarks: [1]Oper 1200–0400Z.

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT **FSS:** DALLAS

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI **FSS:** PALACIOS

McALLEN

§MILLER INTL *IFR* 2S (AOE) **FSS:** McALLEN on Fld 106 H49/13-31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13

Remarks: Rnwy 31 threshold displaced 542′ NE.

McAllen Tower 118.9 122.5R **Gnd Con** 121.9

Brownsville App Con: 119.5 126.2 118.1

McAllen (L) BVOR 109.8/MFE on fld

Remarks: Oper 1200–0400Z.

§MIDLAND AIR TERMINAL *IFR* 8SW **FSS:** MIDLAND on Fld 2870 H83/10-28(4) (S-100, T-128, TT-280) BL4,6,8A,9 S5 F5,JP2 U2 **RVV:** Rnwy 10

Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl lndg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.

Tower 118.7 126.2 122.5R **Gnd Con** 121.9

App Con 121.1 122.5R 114.8T 110.3T

ILS 110.3 I-MAF Apch Brg 103° **LOM:** 344/MA

VHF/DF Ctc FSS

(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.

MINERAL WELLS (H) BVORTAC 117.7/MWL **FSS:** MINERAL WELLS

RBn BMH 284/MWL

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CORPUS (L) VOR W 109.6/NGP **FSS:** PALACIOS

RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PLAINVIEW

§HALE COUNTY *IFR* 1S **FSS:** AMARILLO (LC CA 3-2148) 3372 H52/4-22(2) (S-30, T-40, TT) BL4 S5 F4 U2

Remarks: Hangar NE.

Plainview Tower[1] 118.9 122.5R **Gnd Con** 121.7

Lubbock App Con 118.1 126.2 112.9T

Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.

Remarks: [1]Oper 1200–0400Z.

QUITMAN (L) BVOR 114.0/UIM **FSS:** TYLER

RANDOLPH RBn HW 359/RND **FSS:** SAN ANTONIO

ROCKSPRINGS (L) BVORTAC 111.2/RSG **FSS:** SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI **FSS:** BEAUMONT

SALT FLAT (L) BVORTAC 113.0/SFL **FSS:** EL PASO

SAN ANGELO

§MATHIS FIELD *IFR* 7SW **FSS:** SAN ANGELO on Fld 1915 H59/3-21(3) (S-35, T-56, TT-) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3

Remarks: Trees E. Rnwy 9-27 clsd to acft over 25,000 lbs GWT.

Tower 118.3 122.5R **Gnd Con** 121.9

San Angelo App Con 119.2 118.3 122.5R 115.1T 109.7T

ILS 109.7 I-SJT Apch Brg 033° **LOM:** 356/SJ

San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

§SAN ANTONIO INTL *IFR* 7N **FSS:** SAN ANTONIO on Fld 808 H85/12-30(3) (S-150, T-225, TT-300) BL4,6,8A,9 S5 F4, JP1 U2 **RVV:** Rnwy 3 **RVR:** Rnwy 12

Remarks: US customs lndg rts arpt 1000–2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′.

Tower 118.9 122.5R **Gnd Con** 121.9

Clrnc Del 127.3

Radar Services:

App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9

Tfc Info Ctc App Con 25 mi out.

ASR Rnwys 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 1208

ILS 110.9 I-ANT Apch Brg 123° **BC unusable** **LOM:** 305/AN 109.7 I-SAT Apch Brg 032° **LOM:** 219/SA

(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.

VHF/DF Ctc twr.

Remarks: **VOT:** 110.4.

SAN ANTONIO

§STINSON MUNI *IFR* 5S **FSS:** SAN ANTONIO (LC TA 6-9575) 577 H48/9-27(3) (S-40, T-75, TT-) BL5 S5 F4

Remarks: Trees all apchs. Tfc 800′ above terrain 1367′ MSL. Rnwy 14 threshold displaced 600′ SE; rnwy 32–400′ NW.

Tower[1] 119.5 122.7R **Gnd Con** 121.7

Radar Services:

San Antonio App Con 120.3 134.1 126.5 126.2R 122.5R

San Antonio Dep Con 123.9

Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld

Remarks: [1]Oper 1300–0500Z.

SEGUIN RBn HW 371/UCT **FSS:** SAN ANTONIO

Remarks: VFR only. Opers daylight hours Mon-Fri.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR **FSS:** DALLAS

TANK RBn BH 388/DDA **FSS:** DALLAS

TEMPLE (L) BVOR 110.4/TPL **FSS:** WACO

TEXICO (H) BVORTAC 112.2/TXO **FSS:** TUCUMCARI

TRADEWIND RBn MHW 338/AM **FSS:** AMARILLO

TEXAS—*Continued*

TYLER
§POUNDS FIELD *IFR* 4W **FSS:** TYLER on Fld
544 H52/13–31(3) (S–40, T–60, TT–100) BL5,6,8A,9 S5
F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl Indg rnwy 17.
Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I–TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT **FSS:** PALACIOS (512) 445–1281

§WACO MUNI *IFR* 5NW **FSS:** WACO on Fld
515 H57/18–36(3) (S–26, T–38, TT–)* BL4,6,8A,9 S5
F5 U2 **RVV:** Rnwy 18
Remarks: *Rnwy 14–32 (S–57, T–68, TT–104) Rnwy 5 threshold displaced 453′ E. Usable length rnwy 23–5500′; rnwy 5–5049′.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 115.3T
Dep Con 125.4
ILS 109.7 I–ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS
§SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5N
FSS: WICHITA FALLS on Fld
1015 H131/15–33(2) (S–65, T–300, TT–530) BL4,6,8A,9,10
S5 F4, JP1 JP5 U2 **VASI:** Rnwy 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700′ rectangular tfc ptn 2200′ MSL. Rgt tfc rnwys 17 & 33. Rnwy 17–35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Wichita Falls App Con 118.2 122.5R 109.7T
Wichita Falls Dep Con 118.2
ILS 109.7 I–SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.8 NM to rnwy 33.
VHF/DF Ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK **FSS:** WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL **FSS:** SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE **FSS:** BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC **FSS:** CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA **FSS:** SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG **FSS:** SALT LAKE CITY

HANKSVILLE (H) BVORTAC 115.9/HVE **FSS:** CEDAR CITY

HILL RBn MHW 317/HI **FSS:** SALT LAKE CITY

LA SAL (L) BVORTAC 112.9/LXL **FSS:** GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU **FSS:** SALT LAKE CITY

MILFORD (H) BVORTAC 112.1/MLF **FSS:** CEDAR CITY

MYTON (H) BVORTAC 117.9/MTU **FSS:** GRAND JUNCTION

§OGDEN MUNI *IFR* 3SW **FSS:** SALT LAKE CITY (LC 394–8712)
4455 H73/3–21(3) (S–100, T–160, TT–280) BL4,11 S5 F5
JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000′ NE end. 6300′ avbl Indg day/ngt rnwy 21 and Indg rnwys. Tkof rnwy 21 ngts. 7300′ avbl Indg rnwy 3 and tkof rnwys 21 days.
Tower[1] 118.7 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1
Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
Remarks: [1]Oper 1300–0500Z.

PROVO (H) BVORTAC 116.6/PVU **FSS:** SALT LAKE CITY (LC 374–6327)

§SALT LAKE CITY MUNI NO. 1 *IFR* 4W **FSS:** SALT LAKE CITY on Fld
4226 H100/16R–34L(2) (S–100, T–160, TT–260)
BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: Rnwy 7–25 & 14–32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500–2330Z Mon-Fri. No service holidays.
Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Salt Lake App Con 120.9 122.7R 116.8T 109.5T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I–SLC Apch Brg 339° **LOM:** 239/SL
(H) BVORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF[1] Ctc FSS and twr.
Remarks: [1]VHF/DF unusable 350–140°, 170–225° beyond 15 NM at MOCA. **VOT:** 111.0

VERNAL (L) BVOR 108.2/VEL **FSS:** GRAND JUNCTION

VERMONT

§BURLINGTON MUNI *IFR* 2E AOE **FSS:** MONTPELIER (LC 878–3393)
335 H78/15–33(2) (S–62, T–110, TT–195) BL5,6,8A,9 S5
F5, JP1, JP4 U2 DT2 **RVV:** Rnwys 15 and 33
Tower 118.3 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 122.5R 110.3T
Dep Con 119.2
ILS 110.3 I–BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H–SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF contact tower.
Remarks: **VOT:** 109.0.

MONTPELIER (L) BVOR 108.2/MPV **FSS:** MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK **FSS:** MONTPELIER

RUTLAND RBn MHWZ 391/RUT **FSS:** GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD **FSS:** LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA **FSS:** BLUEFIELD

BLACKSTONE RBn MHW 326/BKT **FSS:** BLACKSTONE (0600–2200)
FSS: RICHMOND (2200–0600)

BROOKE (L) BVORTAC 111.8/BRV **FSS:** WASHINGTON

CAPE CHARLES (L) BVORTAC 112.2/CCV **FSS:** NEWPORT NEWS

VIRGINIA—*Continued*

CASANOVA (L) BVORTAC 109.6/CSN **FSS:** WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE ***IFR*** 7N
FSS: CHARLOTTESVILLE on fld
634 H46(1) BL4,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
ILS 109.1 I–CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.9 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD **FSS:** ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN **FSS:** DANVILLE

ECLIPSE RBn HW 209/NGU **FSS:** NEWPORT NEWS

EVINGTON RBn MHW 385/EVI **FSS:** ROANOKE

FELKER (T) VOR 111.4/FAF **FSS:** NEWPORT NEWS
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU **FSS:** NEWPORT NEWS
RBn MHW 356/NTU

FLAT ROCK (H) BVORTAC 113.3/FAK **FSS:** RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN **FSS:** NEWPORT NEWS
RBn H 362/FKN. Private facility

FRONT ROYAL (H) BVORTAC 115.3/FRR **FSS:** MARTINSBURG

GORDONSVILLE (H) BVORTAC **FSS:** CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM **FSS:** NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN **FSS:** WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW **FSS:** RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP **FSS:** ROANOKE
Remarks: Private Facility

LANGLEY (L) VOR 111.6/LFI **FSS:** NEWPORT NEWS

LAWRENCEVILLE (L) BVOR 112.9/LVL **FSS:** BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE **FSS:** ROANOKE

LINDEN (L) BVORTAC 114.3/LDN **FSS:** WASHINGTON

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§LYNCHBURG MUNI-PRESTON GLENN FLD ***IFR*** 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sept 6.
Lynchburg Tower 120.7 122.5 **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS^1 110.1 I–LYH Apch Brg 032°
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: ^{1}BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR **FSS:** CHARLOTTESVILLE
112.6/MOL

MORRISON RBn MHW 248/MOV

NEWPORT NEWS
§PATRICK HENRY ***IFR*** 9NW **FSS:** NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5
F5, JP1 U2 DT **FSS:** NEWPORT NEWS on Fld
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30–Sept 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 126.8
ILS 110.1 I–PHF Apch Brg 065° **LOM:** 375/PH
Remarks: BC unusable below 1500′ MSL beyond 5 NM.

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§NORFOLK MUNI ***IFR*** 5NE **FSS:** NEWPORT NEWS (DL)
26 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVV:** Rnwy 4
Remarks: DT May 30–Sept 5. Rnwy 13 threshold displaced 219′ SE. 4657′ avbl lndg rnwy 13. 4876′ avbl lndg and tkof rnwy 31 and tkof rnwy 13. Rnwy open day/ngt operns. Rnwy 19 threshold displaced 950′ SW. Dalgt operns 4050′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both direstions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibted from making eng runup when facing SE at the apch end of rnwy 4.
Tower 121.1 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 127.2 **Dep Con** 118.5
Tfc Info: Expanded radar air service Ctc App Con 35 mi out on 118.9
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526
ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF Ctc twr.

PULASKI (H) BVORTAC 115.9/PSK **FSS:** BLUEFIELD
Rng SBMRAZ^1 272/PK
Remarks: ^{1}Reliable reception distance 40 NM.

RICHMOND
§RICHARD E. BYRD FLYING FIELD ***IFR*** 6 E **FSS:** RICHMOND on Fld
167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5 F5, JP1, JP4 U2 DT **RVV:** Rnwy 6
Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ overrun each end rnwy 15–33. DT may 30–Sept 5.
Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Richmond App Con 119.0 126.2 122.5R 119.9 110.3T
Richmond Dep Con 118.2
Tfc Info: Lndg acft ctc App Con 35 mi out on 119.9
ASR Rnwys 2, 15,^{1} 20, 24,^{1} 33^1 Ceil 400 Vsby 1 mi Min Alt 567
Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667
ILS 110.3 I–RIC Apch Brg 063° **LOM:** 382/RI
Richmond (H) BVORTAC 114.1/RIC on fld.
Richmond SBH 260/RIC 018° 1.7 NM to fld.
Remarks: ^{1}400–¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT:** 110.8.

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§ROANOKE MUNI ***IFR*** 3 NW
FSS: ROANOKE on Fld
1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5 F5, JP1 U2 DT **REIL:** Rnwy 23
Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sept 6.
Tower 118.3 122.5R 120.2 **Gnd Con** 121.9
Radar Services: (BCN)
App Con 126.9 122.5R 120.2 109.0T
Dep Con 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374
Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV **FSS:** DANVILLE

SPRINGFIELD RBn MHW 353/SRI **FSS:** WASHINGTON

WOODRUM (T) VOR 109.0/ODR **FSS:** ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI **FSS:** BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K **FSS:** SEATTLE

ELLENSBURG (L) BVORTAC 117.9/ELN **FSS:** WENATCHEE

EPHRATA (H) BVOR 116.8/EPH **FSS:** EPHRATA

EVERETT
§PAINE FIELD ***IFR*** 6 SW **FSS:** SEATTLE (DL)
603 H90/16–34(2) (S–50, T–150, TT–220) BL6, 8A, 9 S5
F4, JP4 U2 DT2
Remarks: Rnwy 11 threshold displaced 1600′. Jet arresting barrier 3″ above rnwy 16/34 J-bar each end rnwy 34 not visible to twr 2000′ to 4000′ from apch end. Due constrn twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.
Tower 121.3 126.2 122.5R
Radar Services:
Seattle Center App Con 121.2
ASR Rnwy 16 Ceil 200 Vsby ½ mi Min Alt 803
ILS 109.3 I–PAE Apch Brg 155° **LOM:** 396/PAE
Everett (L) VOR 114.2/PAE on fld.
Everett RBn HW 396/PAE 158° 7.9 NM to fld
Remarks: LOM is HW.

GRAY RBn MH 216/GRF **FSS:** SEATTLE

HOQUIAM (H) BVORTAC 115.4/HQM **FSS:** HOQUIAM
Remarks: Restricted to awy and apch only.

KITSAP RBn MHW 206/PWT **FSS:** SEATTLE
Remarks: Operd by County.

MOSES LAKE **FSS:** EPHRATA
GRANT COUNTY 5.5 NW
1186 H135(2) BL5,6
Tower[1] 118.1 122.7R **Gnd Con:** 121.9
ILS 109.5 I–MWH **LOM:** 408/MW
Moses Lake (L) VOR 117.0/MWH
Moses Lake RBn MHW 408/MW
Remarks: [1]Oper 0600–2300 lcl time. RBn & VOR monitored during hrs twr in opern. LOM is MHW.

NEAH BAY RBn HW 391/EBY **FSS:** SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM **FSS:** SEATTLE

PASCO (L) BVOR 108.4/PSC **FSS:** WAL'A WALLA

PORT ANGELES (L) BVOR 108.4/CLM **FSS:** SEATTLE

PULLMAN (L) BVOR 109./PUW **FSS:** WALLA WALLA

§RENTON MUNI ***IFR*** Adjt NW 031° **FSS:** SEATTLE (LC RO 2–4000)
29 H53/15–33(1) (S–100, T–190, TT–300) BL4 S5
F4, U2 JP4 DT2
Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195–300° at 1000′ MSL beyond 2 mi.
Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9
Seattle Dep Con 119.2
Remarks: [1]Oper 0700–2300 lcl time.

SEATTLE
§KING COUNTY ARPT, BOEING FIELD ***IFR*** 4 S **FSS:** SEATTLE on fld
17 H100/13–31(2) (S–100, T–160, TT–290) BL6, 11, 12 S5
F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
Remarks: Rnwy 12–30 (Max–12.5)
Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2
ILS[1] 110.9 I–BFI Apch Brg 128° BC unusable **LOM:** 387/BF
Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.
Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

§SEATTLE-TACOMA INTL ***IFR*** 10 S **FSS:** SEATTLE (DL)
428 H119/16–34(2) S–45, T–145, TT–300) BL4,6,8A,9,14
S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I–SEA[1] Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I–SZI[2] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF Ctc twr.
Remarks: [1]Automatic apchs not authorized from MM to touchdown. [2]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

§SPOKANE INTL ***IFR*** 5 S **FSS:** SPOKANE
2372 H90/3–21(2) (S–100, T–200, TT–350) BL5, 6, 8A, 9
S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3–21.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3
Tfc Info Ctc Spokane App Con aprx 20 mi out.
ILS 109.9 I–GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: **VOT:** 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW **FSS:** SEATTLE

WALLA WALLA (L) BVOR 111.8/ALW **FSS:** WALLA WALLA
RBN BH 356/ALW

WENATCHEE (L) BVOR 111.0/EAT **FSS:** WENATCHEE

§YAKIMA MUNI ***IFR*** 2 S **FSS:** YAKIMA on Fld
1082 H55/9–27(3) (S–50, T–60, TT–100) BL4, 6 8A, 9 S5
F5, JP1, JP4 U2
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.7 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I–YKM Apch Brg 269° **LOM:** 284/YK
(H) BVOR 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW **FSS:** CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF **FSS:** BLUEFIELD

CHARLESTON
§KANAWHA ***IFR*** 2 NE **FSS:** CHARLESTON on Fld
982 H56/5–23(2) (S–150, T–200, TT–44) BL4, 6, 8A, 9, 11
S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:
Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I–CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/SRW 084° 8.1 NM to fld

WEST VIRGINIA—*Continued*

VHF/DF Ctc twr.

Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. **VOT:** 111.0.

CLARKSBURG (L) BVOR 115.1/CKB FSS: MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN FSS: ELKINS

Rng SBMRAZ[1] 245/EN

Remarks: [1]Reliable reception distance 40 NM.

HENDERSON (L) BVORTAC 111.2/HNN FSS: HUNTINGTON

HUNTINGTON

§TRI-STATE (WALKER LONG FLD) ***IFR*** 6 SW FSS: HUNTINGTON on Fld

828 H53/11–29(1) (S–50, T–75, TT–135) BL6, 8A, 9 S5 F4, JP1 U2 DT1

Huntington Tower 120.9 122.5R **Gnd Con** 121.9

Huntington App Con 118.5 122.5R 109.9T

ILS[1] 109.9 I–HTS Apch Brg 114° **LOM:** 287/HT

Huntington RBn BH 323/HTW 199° 2.5 NM to fld.

Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL FSS: ELKINS

§MARTINSBURG MUNI ***IFR*** 4 S FSS: MARTINSBURG on Fld

556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2

Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9

Radar Services:

Dulles App Con 119.2 126.1

Dulles Dep Con 125.55

PAR[2] Rnwy 26 Ceil 300 Vsby 3/4 mi Min Alt 856

ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956

(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.

Remarks: [1]Oper 0830–1630 lcl time Tues, Thur, Sat and Sun; 0830–2200 lcl time Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 lcl time Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW FSS: MORGANTOWN

RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB FSS: PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL FSS: CHARLESTON

§WHEELING-OHIO COUNTY ***IFR*** 7 N FSS: WHEELING on Fld

1195 H50/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12 F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21

Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9

ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL

Wheeling (L) BVORTAC 112.2/HLG 220° 5.8 NM to fld.

Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU FSS: ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW FSS: GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ FSS: WAUSAU

CAMP MC COY RBn MHW 412/CAY FSS: LA CROSSE

DELLS (L) BVORTAC 110.4/DLL FSS: LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU FSS: EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD FSS: GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG FSS: MINNEAPOLIS

WISCONSIN—*Continued*

GREEN BAY

§AUSTIN STRAUBEL ***IFR*** 7 SW FSS: GREEN BAY on Fld

694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT1 **RVR:** Rnwy 6

Remarks: US Customs lndg rts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE

Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9

Green Bay App Con 119.4

VFR ADV Ctc App Con on 119.4.

ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR

Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.

VHF/DF Ctc FSS.

JANESVILLE

ROCK COUNTY ***IFR*** 4 SW FSS: ROCKFORD (LC EN5639)

808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2

REIL: Rnwy 4

Remarks: Rnwy 22 threshold displaced 698′ NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.

Tower 121.2 122.7R **Gnd Con** 121.9

Rockford App Con 119.6

(L) BVORTAC 113.4/JVL

Remarks: Opers 0600–2200 lcl time.

LACROSSE (T) BVOR 108.4/LSE FSS: LACROSSE

RBn MHW 371/LSE

LAND 'O LAKES RBn MHW 396/LNL FSS: WAUSAU

Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR FSS: LONE ROCK

MADISON

§TRUAX FIELD ***IFR*** 5 NE FSS: MADISON on Fld

859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36

Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.

Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9

Madison App Con 120.1 126.2 109.9T

Madison Dep Con 118.8

VFR ADV Ctc App Con on 120.1.

ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN

Madison RBn MHW 400/MSN 359° 3.9 NM to fld.

Truax (L) BVOR 115.5/TAX at fld.

VHF/DF Ctc FSS.

Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW FSS: GREEN BAY

MARSHFIELD RBn MHW 391/MFI

Remarks Operd by City

MILWAUKEE

§GENERAL MITCHELL FLD ***IFR*** 5 S FSS: MILWAUKEE on Fld

722 H99/1–19(4) (S–100. T–185, TT–350) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwys 1, 7

Remarks: Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N. Rnwy 7L threshold displaced 667′ NE. Rnwy 25R threshold displaced 944′ SW. Air carrier turbo-jet trng lndgs and tkofs prohibited 0330–1100Z. Tkofs permitted rnwy 7R btn 040–100° and wind velocity greater than 10 knots only.

Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9

Clrnc Del 120.0

WISCONSIN—*Continued*

Radar Services: (BCN)
Milwaukee App Con 126.5 123.8 126.2 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19, 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Mitchel RBn H–SAB 242●/GM 070° 5.8 to rnwy 7R
VHF/DF Ctc twr.
Remarks: [1] Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. **VOT:** 109.0

§TIMMERMAN FIELD *IFR* 5 NW **FSS:** MILWAUKEE (DL)
745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County arpt Director except emgcy.
Tower[1] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[2] 126.2 123.8[3] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info Ctc Milwaulkee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1] Oper 1200–0400Z. [2] 360–179 [3] 180–359.

OSHKOSH
§WINNEBAGO CO *IFR* 1 SW **FSS:** GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1] Oper 1300–0500Z

RACINE RBn MH 260/RAC **FSS:** MILWAUKEE

REWEY (L) BVOR 115.8/RWY **FSS:** LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI **FSS:** WAUSAU

SHEBOYGAN MHW 254/SBM

STEVENS POINT (L) BVOR-DME 110.6/STE **FSS:** WAUSAN
Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC **FSS:** MILWAUKEE

TRUAX (L) BVOR 115.5/TAX **FSS:** MADISON

VOLK (L) VOR 109.0/VOK **FSS:** LA CROSSE
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW **FSS:** WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI **FSS:** ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY **FSS:** WORLAND

§CASPER AIR TERMINAL *IFR* 7 NW **FSS:** CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2

WYOMING—*Continued*

Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1] Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVOR 112.2/CKW **FSS:** RAWLINS

§CHEYENNE MUNI *IFR* 1 N **FSS:** CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
App Con 120.0 122.5R 113.1T 109.9T
VFR Adv Ctc App Con on 118.7 aprx 25 mi out.
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1CYS 196° 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI **FSS:** SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW **FSS:** CASPER

DUNOIR (L) BVOR 113.4/DNW **FSS:** WORLAND

FORT BRIDGER (L) BVORTAC 108.6/FBR **FSS:** ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC **FSS:** IDAHO FALLS
Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR **FSS:** LARAMIE

MEDICINE BOW (L) BVOR 114.1/MBW **FSS:** LARAMIE

RIVERTON (L) BVOR 108.8/RIW **FSS:** WORLAND

§ROCK SPRINGS MUNI *IFR* 7E **FSS:** ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290/RKS
VHF/DF Ctc FSS.

SHERIDAN (L) BVORTAC 115.3/SHR **FSS:** SHERIDAN

SINCLAIR RBn SBH 368/SIR **FSS:** RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE **FSS:** SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ **FSS:** SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W **FSS:** SAN JUAN
10 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1] Oper 1100–0200Z

§PUERTO RICO INTL 6E **FSS:** SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9

PUERTO RICO—*Continued*

ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391.SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP FSS: SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX **FSS:** ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W **FSS:** SAN JUAN
11 H42/9-27(1) (S-30, T-45, TT-70) BL5 F4
Remarks: U.S. Customs lndg rqts.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE PART I DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)				VHF (High)			
119.8	120.1	124.5	124.6	132.65	132.9	133.0	133.05
124.7	125.2	125.4	125.9	133.45	133.55	133.65	133.8
126.0	126.4	126.9	127.2	133.85	134.35	134.45	134.75
132.3	134.5			135.05	135.15	135.3	135.7
				135.8			

ATLANTA

VHF (Low)				VHF (High)			
118.9	120.0	120.3	120.8	132.25	132.75	132.85	132.9
120.9	121.2	123.8	124.1	133.1	133.35	133.7	134.45
124.4	125.2	125.5	126.4	134.55	134.6	135.15	135.75
126.6	126.8	127.55	127.8				
127.95	128.3	128.6	128.65				
128.75	135.6						

BOSTON

VHF (Low)				VHF (High)			
119.0	121.0	124.0	124.2	127.8	128.1	132.5	132.65
124.9	125.8	127.0	127.1	132.9	133.5	134.3	134.7
127.3	127.6	127.8	127.9	134.45	134.95	134.85	
128.1	128.2	132.4	132.5				
132.65	135.7						

CHICAGO

VHF (Low)				VHF (High)			
119.4	119.6	120.2	120.4	124.5	127.95	128.65	132.15
120.6	120.8	121.4	123.9	132.4	132.5	132.75	133.1
124.0	124.1	124.4	124.8	133.35	133.5	133.7	133.9
125.1	125.2	125.6	126.4	133.95	134.85	135.1	135.35
126.6	126.8	127.0	127.1	135.55			
127.5	127.6	127.7	127.8				
128.0	128.05	128.2	128.4				
128.5	128.7	132.2	132.3				
133.9							

CLEVELAND

VHF (Low)				VHF (High)			
118.8	118.9	119.6	119.8	132.25	132.45	133.25	133.3
120.2	120.3	120.4	120.6	133.95	134.25	134.65	
120.8	121.2	121.4	123.9				
124.2	124.3	124.4	124.6				
125.0	125.1	125.2	125.3				
125.6	125.7	126.1	126.4				
126.8	127.15	127.45	127.5				
127.65	127.9	128.35	128.45				
128.6	134.3						

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)				VHF (High)			
119.8	124.1	125.0	125.6	127.55	128.2	132.1	132.05
125.8	126.0	127.2	127.8	132.15	132.85	133.15	127.3
132.5	132.7	133.0	133.4	133.3	133.75	133.85	134.4
134.6				134.65	134.7	135.5	135.15
				135.65			

FORT WORTH

VHF (Low)				VHF (High)			
119.4	124.4	124.6	124.7	132.2	132.35	132.45	132.55
124.8	125.0	125.5	125.6	132.75	133.25	133.35	133.5
126.0	126.6	127.3	127.7	133.55	133.7	133.95	134.25
128.1	128.3	128.8	133.1	134.55	134.85	135.1	135.35
133.3	133.9	135.0	135.6	135.4	135.6	135.75	

GREAT FALLS

VHF (Low)				VHF (High)			
120.4	124.1	125.0	125.1	118.9	125.0	132.25	132.65
125.8	125.9	126.4	126.5	132.95	133.4	133.55	134.55
127.6				135.25	135.55		

HOUSTON

VHF (Low)				VHF (High)			
118.2	118.9	120.6	120.7	127.8	132.15	132.4	132.5
121.0	121.2	124.0	124.1	132.6	132.7	132.8	132.95
124.2	125.8	125.9	126.0	133.05	133.4	133.65	133.75
126.4	126.6	126.8	126.9	133.85	134.35	134.8	134.95
126.95	127.0	127.2	128.0	135.2			
128.1	128.2	128.3	128.4				
132.9	134.7						

INDIANAPOLIS

VHF (Low)				VHF (High)			
118.2	124.2	124.4	124.8	128.25	132.7	133.05	133.45
126.0	127.0	127.1	127.3	133.75	134.35	134.75	134.9
127.4	128.3	128.4	128.55	134.95			
128.8	132.2	132.6	135.1				
135.7	135.8						

ARTCC COMMUNICATIONS FREQUENCIES

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
121.3	124.3	124.7	125.1	133.25	133.95	134.25	134.75
125.5	126.5	126.9	127.2	134.85	135.4	135.05	135.25
128.1	132.3	132.5	132.8	135.55	135.65		
133.4	133.5	134.3	134.7				

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.5	135.4			
125.9	127.4	127.5	127.6				
127.7	127.8	128.1	128.4				
128.6	132.1	134.6	134.9				

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	125.8	127.9	128.3	128.6	132.15
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.8
127.1	127.3	127.4	128.2	134.55	134.75	134.95	135.25
128.4	128.8	132.3	132.5	135.45			
132.6	133.4	133.8	134.2				
134.4	134.6	135.05					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	126.1	127.1	134.25	134.9	135.3	135.5
127.2	127.25	127.3	127.4	135.7			
127.6	127.75	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	125.8	127.7	132.7
124.4	124.5	124.7	125.4	132.15	132.95	133.65	133.8
125.6	125.8	126.4	127.0	134.35	134.5	134.95	135.5
127.2	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.5	132.15	133.4	133.55	133.65
125.6	125.9	126.0	126.1	133.85	134.25	134.45	134.8
127.1	127.2	127.3	127.8	134.55	135.45	135.7	
127.9	128.6	132.1	132.6				
134.6	134.8						

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.2	132.1	132.3	132.75	132.95
124.8	125.1	125.3	125.4	133.8	133.9	134.8	135.45
125.5	125.6	126.0	126.4	135.55	135.75		
126.6	126.8	126.9	127.95				
128.2	128.3	128.5	128.65				
128.7	132.6	134.6	135.1				
135.55	135.6	135.65					

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	128.15	132.05	132.8	132.65
121.2	123.8	123.9	124.2	132.85	132.95	133.3	133.7
124.6	125.5	125.7	125.9	133.75	134.35	134.7	
126.5	126.8	127.05	127.3				
127.2	127.5	127.7	127.8				
128.7							

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.40	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	128.4	133.1	134.25	134.85	135.7	

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.3	125.1	125.3	125.6	133.5	133.65	133.9	134.65
125.8	126.0	128.1	132.1	134.75			
132.6	133.5						

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.5	133.15	133.55	133.65	133.85
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
134.3	135.0	135.4					

SAN JUAN

VHF (Low)	VHF (High)			
	119.9	120.3	121.5	125.0

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 1 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed. Four designated part-time FSS's transmit and receive on only 123.6 and 121.5 (emergency). These are identified in the tabulation by ✓ symbol preceding the name.

Location and Identifier			Area Code	Telephone
ALABAMA				
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595-6151▬
		WB	(205)	595-2101★
Dothan DHN	DF	FSS	(205)	794-6683
Huntsville HSV		FSS	(205)	536-1254
		WB	(205)	881-2761◆
Mobile MOB (Bates)		FSS	(205)	342-1177
		WB	(205)	342-2762◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269-4368
		WB	(205)	263-0621◆
Muscle Shoals MSL	DF	FSS	(205)	383-6541
		WB	(205)	383-6657◆
Tuscaloosa TCL		FSS	(205)	758-3628
ARIZONA				
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4-5353
Flagstaff		WB	(602)	774-1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261-4295▬
		WB	(602)	261-3868◆
Prescott PRC	DF	FSS	(602)	HI 5-2160
Tucson TUS	DF	FSS	(602)	294-1463▬
Winslow		WB	(602)	289-3592
Yuma YUM		FSS	(602)	725-2601▬
ARKANSAS				
El Dorado ELD (Goodwin)		FSS	(501)	UN 3-9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2-8277

Location and Identifier			Area Code	Telephone
ARKANSAS (Con't)				
Ft. Smith FSM		FSS	(501)	MI 6-1791
		WB	(501)	646-5731
Harrison HRO		FSS	(501)	EM 5-3433
Little Rock		WB	(501)	374-1546◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5-0652
Texarkana TXK		FSS	(501)	774-6221
Walnut Ridge ARG		FSS	(501)	TU 6-6671
CALIFORNIA				
Arcata ACV	DF	FSS	(707)	TE 9-2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399-1787▬
Bishop		WB	(714)	873-3213 (0545-1915)
Blue Canyon		WB	Emigrant Gap 2721	(0545-1415)
Blythe BLH	DF	FSS	(714)	948-6638
Burbank		WB	(213)	848-6206◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4-2514
Daggett DAG		FSS	(714)	CL4-2223
Eureka		WB	(707)	442-2171◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251-8269▬
Imperial IPL		FSS	(714)	355-1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429-0337◆
Los Angeles LAX (International)		FSS	(213)	SP 6-2727
		WB	(213)	670-2223
Marysville MYV (Yuba Co.)		FSS	(916)	742-1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459-3003
Mt Shasta		WB	(916)	926-2227 (0730-1600)
Needles EED		FSS	(714)	326-3511

CALIFORNIA (Con't.)

Location and Identifier			Area Code	Telephone
Oakland OAK (International)		FSS	(415)	562-7807▬
		WB	(415)	832-5418★
				(Via San Francisco)
Ontario ONT		FSS	(714)	983-2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947-3502
Paso Robles PRB	DF	FSS	(805)	238-2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527-0242▬
Sacramento SAC	DF	FSS	(916)	428-6500▬
Salinas SNS		FSS	(408)	422-4723
San Diego SAN (Lindbergh)		FSS	(714)	296-3181▬
San Francisco		WB	(415)	589-6711★
		WB	(415)	761-2052◆
(So. San Francisco)		WB	(415)	588-3012
Santa Barbara SBA		FSS	(805)	967-2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925-3525
				(0600-2200)
Stockton SCK		FSS	(209)	466-3684▬
Thermal TRM		FSS	(714)	EX 9-5155
Ukiah UKI		FSS	(707)	462-6136

COLORADO

Location and Identifier			Area Code	Telephone
Akron AKO		FSS	(303)	345-2271
Alamosa		WB	(303)	589-2547
				(0400-2000)
Colorado Springs		WB	(303)	632-0535◆
Denver DEN (Stapleton Intl)		FSS	(303)	297-3277▬
		WB	(303)	388-3653★
Eagle EGE		FSS	(303)	328-2125
Grand Junction GJT (Walker Field)		FSS	(303)	242-1801▬
La Junta LHX		FSS	(303)	DU 4-4311
Pueblo PUB (Memorial)		FSS	(303)	948-3301
		WB	(303)	948-3376◆
Trinidad TAD	DF	FSS	(303)	846-2623

CONNECTICUT

Location and Identifier			Area Code	Telephone
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247-2855◆
New Haven		WB	(203)	469-2141◆
				(0630-1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3-5590

DELAWARE

Location and Identifier			Area Code	Telephone
Wilmington		WB	(302)	328-2755◆

DISTRICT OF COLUMBIA

Location and Identifier			Area Code	Telephone
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661-8526◆
Washington National DCA		FSS	(202)	DI 7-1442
		WB	(202)	628-0491▬
		WB	(202)	347-8016★

▬This line answered by FSS or WB. Caller can be switched to either office upon request.

FLORIDA

Location and Identifier			Area Code	Telephone
Apalachicola		WB	(305)	653-3171
Crestview CEW	DF	FSS	(305)	MU 2-2795
Daytona Beach DAB		FSS	(904)	255-4767
		WB	(904)	252-5949
Ft. Myers FMY (Page Field)		FSS	(813)	936-1857
		WB	(813)	WE 6-2057
				(0600-1400 Apr-Oct)
				(0600-2200 Nov-Mar)
Gainesville GNV		FSS	(904)	376-8521
Jacksonville JAX (Imeson)		FSS	(904)	355-3601▬
		WB	(904)	353-8605★
Key West EYW (International)		FSS	(305)	CY 6-2042
		WB	(305)	CY 6-2011
Lakeland		WB	(813)	682-4221
				(0600-2400 Nov 15-Mar 15)
				(0800-1700 Mar 16-Nov 14)
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3-6151
Miami MIA		IFSS	(305)	633-1461▬
		WB	(305)	666-2543★
Orlando ORL (Herndon)		FSS	(305)	841-5101▬
Pensacola PNS		FSS	(305)	HE 8-4390
St Petersburg via Tampa		WB	(813)	894-3086★
Tallahassee TLH	DF	FSS	(305)	224-7101
		WB	(305)	222-3335
Tampa TPA (Tampa International)		FSS	(813)	877-7503
		WB	(813)	872-9964★
		WB	(813)	877-1677◆
Vero Beach VBR	DF	FSS	(305)	562-2167
			(305)	464-1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832-5697★
		WB	(305)	683-3032◆

GEORGIA

Location and Identifier			Area Code	Telephone
Albany ABY		FSS	(912)	435-6201
Alma AMG		FSS	(912)	632-4422 (0600-2200 EST)
Athens		WB	(404)	LI 3-3891◆
Atlanta FTY (Fulton Co.)	DF	FSS	(404)	344-1551
		WB	(404)	767-0244★
		WB	(404)	767-3187◆
Augusta AGS (Bush Fld)		FSS	(404)	798-5164
		WB	(404)	798-6821◆
Brunswick SSI (Malcom McKinnon)		FSS	(912)	638-8641
Columbus		WB	(404)	322-1793◆ (0630-2045)
Macon MCN (Muni)	DF	FSS	(912)	788-5064
		WB	(912)	788-1100◆
Rome		WB	(404)	232-6801 (0700-1300 Mon-Fri) (0700-1100 Sat)
Savannah SAV (Travis)		FSS	(912)	234-2257/8▬
Valdosta VLD		FSS	(912)	CH 4-2361

IDAHO

Location and Identifier			Area Code	Telephone
Boise BOI (Air Terminal)		FSS	(208)	343-2525▬
Burley BYI		FSS	(208)	678-7451
Idaho Falls IDA (Fanning Field)	DF	FSS	(208)	522-9024
Lewiston		WB	(208)	743-3841
Malad City MLD		FSS	(208)	766-2971
Mullan Pass MLP		FSS	(208)	PR 5-2001
Pocatello PIH		FSS	(208)	232-2032
		WB	(208)	233-0143◆

ILLINOIS

Location and Identifier			Area Code	Telephone
Champaign CMI (University of Ill.)		FSS	(217)	822-5211
Chicago		WB	(312)	686-2155◆
		WB	(312)	667-5055★
Joliet JOT	DF	FSS	(815)	725-3144
		FSS	(312)	242-3111
Moline MLI (Quad City)		FSS	(309)	762-2412
		WB	(309)	762-1726
Peoria PIA (Greater Peoria)		FSS	(309)	697-0751
		WB	(309)	637-6422◆
Quincy UIN (Baldwin)		FSS	(217)	885-3251
Rockford RFD (Greater Rockford)		FSS	(815)	965-6758
		WB	(815)	963-5816◆ (0515-2115)
Springfield SPI (Capital)		FSS	(217)	544-9012
		WB	(217)	523-5812◆
Vandalia VLA		FSS	(618)	283-0478

INDIANA

Location and Identifier			Area Code	Telephone
Evansville EVV (Dress Memorial)	DF	FSS	(812)	422-8120
		WB	(812)	424-9613◆
Ft. Wayne FWA (Baer Field)		FSS	(219)	747-3139
		WB	(219)	747-2577◆
Indianapolis IND (Weir-Cook)	DF	FSS	(317)	244-3316▬
		WB	(317)	244-2411★
Layfayette LAF (Purdue University)		FSS	(317)	743-1802/3
South Bend SBN (St. Joseph Co.)	DF	FSS	(219)	CE 3-4433
		WB	(219)	234-3937◆
Terre Haute HUF (Hulman)	DF	FSS	(812)	C-2704

IOWA

Location and Identifier			Area Code	Telephone
Burlington BRL		FSS	(319)	752-4734
Cedar Rapids CID	DF	FSS	(319)	364-3041
Davenport (via Moline Ill.)		WB	(319)	326-2677
Des Moines DSM		FSS	(515)	285-5691
		WB	(515)	284-4493◆
Dubuque		WB	(319)	582-3171 (0545-2105)
Mason City MCW		FSS	(515)	GA 3-7512
Ottumwa OTM		FSS	(515)	MU 2-1846
Sioux City SUX	DF	FSS	(712)	258-1060
		WB	(712)	252-0244 ext 210
Waterloo ALO		FSS	(319)	AD 3-5528
		WB	(319)	234-1602◆

KANSAS

Location and Identifier			Area Code	Telephone
Concordia		WB	(913)	243-3141
Chanute CNU		FSS	(316)	HE 1-4450
Dodge City DDC		FSS	(316)	HU 3-3441
		WB	(316)	483-3311
Emporia EMP		FSS	(316)	DI 2-7475
Garden City GCK (New Municipal)		FSS	(316)	BR 6-2531
Goodland GLD	DF	FSS	(913)	899-7154
		WB	(913)	899-2360◆
Hill City HLC		FSS	(913)	674-5642
Hutchinson HUT		FSS	(316)	2-4851
✓Manhattan MHK		FSS	(913)	PR 8-2162 (0700-2100) (Other hrs. Salina) LC PR 6-9751
Russell RSL		FSS	(913)	483-2312
Salina SLN		FSS	(913)	TA 5-5309
Topeka TOP (Phillip Billard)		FSS	(913)	232-5478
		WB	(913)	CE 4-8659◆
Wichita ICT		FSS	(316)	942-2261/2
		WB	(316)	942-3284★
		WB	(316)	943-1063◆

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

KENTUCKY

Location and Identifier		Area Code	Telephone
Bowling Green BWG (Warren County)	FSS	(502)	843-4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381-8195◆
Lexington LEX (Blue Grass)	FSS	(606)	254-5143
	WB	(606)	255-1774◆
London LOZ	FSS	(606)	864-4410
Louisville LOU (Bowman)	FSS	(502)	451-5344
	WB	(502)	368-2188◆
Paducah PUK (Barkley)	FSS	(502)	442-1551

LOUISIANA

Location and Identifier		Area Code	Telephone
Alexandria AEX DF	FSS	(318)	445-3663▬
Baton Rouge BTR (Ryan)	FSS	(504)	EL 5-2763
	WB	(504)	357-9943◆
Lafayette LFT	FSS		CE 5-3752
	WB		234-1220◆
Lake Charles LCH	FSS	(318)	477-1784▬
	WB	(318)	477-5227◆
Monroe MLU	FSS	(318)	322-3157
New Orleans MSY	FSS	(504)	943-5535
	WB	(504)	523-4311★
	WB	(504)	729-2520◆
Shreveport SHV (Greater Shreveport)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141◆

MAINE

Location and Identifier		Area Code	Telephone
Augusta AUG (State)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton HUL (Memorial International) DF	FSS	(207)	532-2475
Millinocket MLT	FSS	(207)	723-8343
Old Town OLD	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland PWM	FSS	(207)	SP 5-0602
	WB	(207)	775-3071◆

MARYLAND

Location and Identifier		Area Code	Telephone
Baltimore	WB	(301)	761-1333◆
	WB	(301)	766-0757★
Salisbury SHV (Salisbury-Wicomico)	FSS	(301)	742-7324

MASSACHUSETTS

Location and Identifier		Area Code	Telephone
Boston BOS (Logan)	FSS	(617)	LO 7-0099▬
	FSS	(617)	LO 7-0015▬
	WB	(617)	569-1773★
Nantucket ACK DF	FSS	(617)	228-0815▬
	WB	(617)	228-0971
Worcester ORH	FSS	(617)	PL 5-6083
	WB	(617)	798-2124◆ (0600-2200)

MICHIGAN

Location and Identifier		Area Code	Telephone
Alpena	WB	(517)	354-8733◆ (0645-1915)
Battle Creek BTL (Kellogg)	FSS	(616)	962-7878
Detroit DTW (City)	FSS	(313)	372-3737
	WB	(313)	274-5310★
	WB	(313)	278-7340◆
Detroit (Willow Run)	WB	(313)	482-5001◆
Flint FNT (Bishop)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987◆
Grand Rapids GRR (Kent County)	FSS	(616)	949-4090
	WB	(616)	949-4251◆
Houghton CMX (Houghton County)	FSS	(906)	482-0380
Houghton Lake (Roscommon County)	WB	(517)	366-5392
Jackson JXN (Reynolds Mun.)	FSS	(517)	ST 4-9640
Lansing LAN (Capital City)	FSS	(517)	482-9237
	WB	(517)	489-4603◆
Marquette MQT	FSS	(906)	GR 5-4197
	WB	(906)	226-8642◆ (0500-2100)
Muskegon MKG (Muskegon County)	FSS	(616)	798-1222
	WB	(616)	798-3048
Pellston PLN (Emmet County)	FSS	(616)	LE 9-8401
Saginaw MBS (Tri City) DF	FSS	(517)	OX 5-6621
Saulte Ste Marie SSM	FSS	(906)	632-8271
	WB	(906)	632-9461
Traverse City TVC	FSS	(616)	947-5056
Ypsilanti	WB	(313)	482-5001

MINNESOTA

Location and Identifier		Area Code	Telephone
Alexandria AXN	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982◆
Hibbing HIB (Chisholm-Hibbing) DF	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis MSP St. Paul Intl	FSS	(612)	PA 9-9386
(Wold-Chamberlain) DF	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429◆
	WB	(612)	729-9339★
Redwood Falls RWF	FSS	(507)	637-8530
Rochester RST	FSS	(507)	289-1579▬
St. Cloud	WB	(612)	251-3213 (0400-2200)
St. Paul (See: Minneapolis)			

MISSISSIPPI

Location and Identifier		Area Code	Telephone
Greenwood GRW	FSS	(601)	GL 3-2631
Jackson JAN (Thompson Field)	FSS	(601)	939-5212
	WB	(601)	939-5881◆

MISSISSIPPI (Con't.)

Location and Identifier		Area Code	Telephone
McComb MCB (Pike County)	FSS	(601)	684-7070
Meridian MEI (Key Field)	FSS	(601)	482-1243
	WB	(601)	483-3725◆
Vicksburg	WB	(601)	636-1193
			(0630–1530 Mon-Fri)
			(0630–1130 Sat, Holidays)
			(clsd Sunday)

MISSOURI

Location and Identifier		Area Code	Telephone
Cape Girardeau GGI	FSS	(314)	ED 4-2803
Columbia CBI	FSS	(314)	449-1136/7
	WB	(314)	443-4332
Joplin JLN	FSS	(417)	MA 3-6868
Kansas City MKC	FSS	(816)	GR 1-5484■
	WB	(816)	471-2131★
Kirksville IRK	FSS	(816)	MO 5-4132
St. Joseph STJ (Rosecrans Memorial)	FSS	(816)	BR 9-2394
St. Louis STL (Lambert)	FSS	(314)	PE 1-0900
	WB	(314)	731-3001◆
	WB	(314)	PE 1-3004★
	WB	(314)	848-3303★
			(Hazlewood)
Springfield SGF DF	FSS	(417)	862-3588■
Vichy VIH (Rolla National)	FSS	(314)	AX 9-3677

MONTANA

Location and Identifier		Area Code	Telephone
Billings BIL (Logan Field) DF	FSS	(406)	259-4545■
Bozeman BZN (Gallatin Field)	FSS	(406)	586-6520
Butte BTM (Silver Bow)	FSS	(406)	723-3004
Cut Bank CTB	FSS	(406)	938-4522
Dillon DLN	FSS	(406)	683-5651
Glasgow Intl	WB	(406)	228-8395
			(0300–2400)
Great Falls GTF (International)	FSS	(406)	452-6495
	WB	(406)	453-3512◆
Havre	WB	(406)	265-6424
			(0430–1315)
Helena HLN	FSS	(406)	442-9902
	WB	(406)	442-8260
Kalispell	WB	(406)	756-4829
Lewistown LWT	FSS	(406)	538-3639
Livingston LVM (Mission Field)	FSS	(406)	222-2411
Miles City MLS DF	FSS	(406)	232-1503
Missoula MSO (Missoula City)	FSS	(406)	542-2230
	WB	(406)	543-7996◆

NEBRASKA

Location and Identifier		Area Code	Telephone
Chadron CDR	FSS	(308)	HE 2-3153
Grand Island GRI	FSS	(308)	382-5196
	WB	(308)	384-1907
Imperial IML	FSS	(308)	TU 2-4887
Lincoln LNK (Mun/AFB)	FSS	(402)	477-3929■
Norfolk	WB	(402)	371-3386
			(0530–2130)
North Plate LBF (Lee Bird)	FSS	(308)	LE 2-4034■
Omaha OMA (Eppley)	FSS	(402)	341-6178■
	WB	(402)	342-3603★
Scottsbluff BFF	FSS	(308)	635-2615
	WB	(308)	632-6822
Sidney SNY	FSS	(308)	254-3130
Valentine	WB	(402)	376-3442

NEVADA

Location and Identifier		Area Code	Telephone
Elko EKO	FSS	(702)	738-6506■
Ely ELY (Yelland Filed)	FSS	(702)	289-2045
	WB	(702)	289-2403
Las Vegas LAS (McCarran)	FSS	(702)	736-1573/4■
Lovelock LOL (Derby Field) DF	FSS	(702)	273-2448
Reno RNO	FSS	(702)	784-5414
	WB	(702)	784-5402◆
Tonopah TPH (Nye County)	FSS	(702)	482-6421
Winnemucca	WB	(702)	623-2203

NEW HAMPSHIRE

Location and Identifier		Area Code	Telephone
Concord CON	FSS	(603)	224-7474■
Lebanon LEB (Regional)	FSS	(603)	298-8360

NEW JERSEY

Location and Identifier		Area Code	Telephone
Atlantic City	WB	(609)	641-4327◆
Millville MIV	FSS	(609)	825-1173
Newark	WB	(201)	624-8118
			624-7272★
			(Via New York)
Teterboro TEB	FSS	(201)	288-9092

NEW MEXICO

Location and Identifier		Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)	FSS	(505)	243-7831■
	WB	(505)	242-2661★
Carlsbad CNM	FSS	(505)	TU 5-2042
Clayton	WB	(505)	374-9511
			(0430–1130 Mon-Fri)
			(0430–0930 Sat)

NEW MEXICO (Con't.)

Location and Identifier		Area Code	Telepone
Deming DMN	FSS	(505)	546–2726
Farmington FMN DF	FSS	(505)	325–9271
Grants GNT	FSS	(505)	AT 7–3011
Hobbs HOB (Lea County)	FSS	(505)	EX 3–3222
Las Vegas LVS	FSS	(505)	GA 5–7411
Raton	WB	(505)	445–3891
			(0545–1225)
Roswell ROW	FSS	(505)	622–6780▬
Santa Fe SAF	FSS	(505)	YU 3–6581
Silver City	WB	(505)	538–9023
			(0530–2000 Mon–Fri)
Truth or Consequences TCS DF	FSS	(505)	894–3277
Tucumcari TCC	FSS	(505)	461–2900
Zuni ZUN	FSS	(505)	782–3770

NEW YORK

Location and Identifier		Area Code	Telepone
Albany ALB (Albany County)	FSS	(518)	869–9225
	WB	(518)	UN 9–9173◆
Binghamton BGM (Broome County)	FSS	(607)	RA 9–6145
	WB	(607)	797–0784◆
Buffalo BUF (Greater Buffalo)	FSS	(716)	NF 2–6083▬
	WB	(716)	632–5042★
Elmira ELM (Chemung County)	FSS	(607)	RE 9–2471
Glens Falls GFL (Warren County)	FSS	(518)	RX 3–2593
Islip ISP (Long Island MacArthur) DF	FSS	(516)	JU 8—1061
(New York)	FSS	(914)	723–4330
	FSS	(212)	995–8657
Massena MSS DF	FSS	(315)	RO 9–2033
New York JFK (John F. Kennedy Intl)	IFSS	(212)	995–8659
	WB	(212)	656–7474★
New York (John F. Kennedy Intl and LaGuardia)	WB	(212)	995–9151◆
Poughkeepsie POU (DutchessCounty)	FSS	(914)	462–3400
Rochester ROC (Monroe County)	FSS	(716)	BE 5–5625
	WB	(716)	FA 8–7391◆
Syracuse SYR (Hancock)	FSS	(315)	GL 4–2479
	WB	(315)	454–1214◆
Utica UCA (Oneida)	FSS	(315)	RE 6–9023
Watertown ART	FSS	(315)	NE 9–3321

NORTH CAROLINA

Location and Identifier		Area Code	Telepone
Asheville AVL	FSS	(704)	684–4401
	WB	(704)	684–6906◆
Cape Hatteras	WB	(919)	995–2321
Charlotte	WB	(704)	399–6000◆
Durham	WB	(919)	596–2326
Elizabeth City ECG (Coast Guard Air Station)	FSS	(919)	338–3808
Fayetteville FAY (Grannis Field)	FSS	(919)	483–7904
Greensboro	WB	(919)	299–9499◆
Hickory HKY	FSS	(704)	DA 7–8281

NORTH CAROLINA (Con't.)

Location and Identifier		Area Code	Telephone
High Point	WB	(919)	883–1927
			(Answered in Greensboro)
New Bern EWN (Simmons-Nott)	FSS	(919)	ME 7–2080
Raleigh-Durham RDN	FSS	(919)	787–4289
	WB	(919)	787–4092◆
			596–2446
			(Durham Exchange)
			275–6341
			(Greensboro Exchange)
Rocky Mount RMT	FSS	(919)	446–6637
Wilmington ILM (New Hanover County)	FSS	(919)	762–7567
	WB	(919)	762–3240
Winston-Salem	WB	(919)	725–1731
	WB	(919)	724–2208◆

NORTH DAKOTA

Location and Identifier		Area Code	Telephone
Bismarck BIS	FSS	(701)	CA 3–8790
	WB	(701)	223–0920◆
Dickinson DIK	FSS	(701)	224–2989
Fargo FAR (Hector)	FSS	(701)	AD 5–8894
	WB	(701)	232–1584◆
Grand Forks GFK (International) DF	FSS	(701)	772–7201
Jamestown JMS	FSS	(701)	252–4350
Minot MOT (International)	FSS	(701)	833–8112
Williston	WB	(701)	572–3198◆
			(0445–2045)

OHIO

Location and Identifier		Area Code	Telephone
Akron ACO	FSS	(216)	ST 4–1246/7
	WB	(216)	896–2246◆
Canton	WB	(216)	499–7933◆
Cincinnati CVG (Lunken)	FSS	(513)	321–1434
	WB	(513)	381–2300★
	WB	(513)	381–6706◆
(Greater Cincinnati)	WB	(513)	684–2129◆
	WB	(606)	283–3696◆
Cleveland CLE (Hopkins)	FSS	(216)	267–0149▬
	WB	(216)	267–3410★
Columbus CMH	FSS	(614)	237–8478▬
Dayton DAY	FSS	(513)	898–4639
	WB	(513)	898–4620◆
			(Vandalia Exchange)
Findlay FDY	FSS	(419)	GA 2–3237
Mansfield MFD	FSS	(419)	524–5323
	WB	(419)	522–7070
			(0600–1800)
Toledo TOL (Express)	FSS	(419)	242–4171
	WB	(419)	385–4921◆
Youngstown YNG	FSS	(216)	539–5121
	FSS	(216)	856–4806
	WB	(216)	545–2447◆
Zanesville ZZV	FSS	(614)	452–8611

OKLAHOMA

Location and Identifier		Area Code	Telephone
Ardmore ADM	FSS	(405)	CA 3-6772
	FSS	(405)	DU 9-5441
Gage GAG DF	FSS	(405)	923-2601
Hobart HBR	FSS	(405)	GE 6-4234
McAlester MLC DF	FSS	(918)	GA 3-4091
Oklahoma City OKC (Will Rogers)	FSS	(405)	SU 9-7452
	WB	(405)	685-4433 ★
	WB	(405)	685-6350 ◆
(Answered personally after PATWAS message.)			
Ponca City PNC	FSS	(405)	RO 5-5485
Tulsa TUL	FSS	(918)	TE 8-3316 ▬
	WB	(918)	835-2364 ★

OREGON

Location and Identifier		Area Code	Telephone
Astoria	WB	(503)	861-2722
Baker BKE	FSS	(503)	523-2961
Eugene EUG (Mahlon-Sweet)	FSS	(503)	343-7738
	WB	(503)	344-0141 ◆
Klamath Falls LMT (Kingsley Field)	FSS	(503)	882-4641
	WB	(503)	882-5060 (0800-1600)
Meacham	WB	(503)	Meacham 2 (0700-1500)
Medford MFR DF	FSS	(503)	779-3241
	WB	(503)	773-1525 ◆
North Bend OTH	FSS	(503)	756-4916
Pendleton PDT	FSS	(503)	276-1761
	WB	(503)	276-1852
Portland PDX (International)	FSS	(503)	AT 2-7293 ▬
	WB	(503)	282-2285 ★
Redmond RDM (Roberts Field) DF	FSS	(503)	548-2522
Salem	WB	(503)	363-6151
The Dalles DLS	FSS	(509)	PO 7-1187

PENNSYLVANIA

Location and Identifier		Area Code	Telephone
Allentown ABE (Bethlehem-Easton)	FSS	(215)	264-4539
	WB	(215)	264-2241
Altoona AOO (Blair)	FSS	(814)	793-3113
Bradford BFD (Bradford-McKean) DF	FSS	(814)	362-8860
DuBois DUJ	FSS	(814)	328-2231
Erie ERI (Port Erie)	FSS	(814)	833-1345
	WB	(814)	833-1991 ◆
Harrisburg HAR (Harrisburg-York State)	FSS	(717)	233-5987
	WB	(717)	233-7315 ◆

PENNSYLVANIA (Con't.)

Location and Identifier		Area Code	Telephone
Philadelphia PNE (N. Philadelphia) DF	FSS	(215)	OR 3-8020
	WB	(215)	726-7511 ◆
	WB	(215)	726-3503 ★ (0600-2300)
Philipsburg PSB (Mid-State) DF	FSS	(814)	342-0830
Pittsburgh AGC (Allegheny)	FSS	(412)	461-8250
	WB	(412)	462-5585 ★
	WB	(412)	462-5586 ★
Pittsburgh (Greater Pittsburgh)	WB	(412)	771-2855 ◆
Reading (General Spaatz Fld)	WB	(215)	376-4103 ◆
			(0800-0900 Sun, 0700-noon Sat) (0700-1630 Mon-Fri)
Scranton	WB	(717)	457-5650 ◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)	FSS	(717)	457-9600
	WB	(717)	457-5650 ◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)	FSS	(717)	368-8547
	WB	(717)	368-1866 ◆

RHODE ISLAND

Location and Identifier		Area Code	Telephone
Providence PVD (Green)	FSS	(401)	RE 7-5300
	WB	(401)	737-0051 ◆

SOUTH CAROLINA

Location and Identifier		Area Code	Telephone
Anderson AND	FSS	(803)	225-7501
	FSS	(803)	225-5031 ◆
Charleston CHS DF	FSS	(803)	747-5293 ▬
	WB	(803)	747-5778 ★
Columbia	WB	(803)	794-4054 ◆
✓Crescent Beach CRE (Myrtle Beach)	FSS	(803)	448-7187 (0800-2000) (Other hrs Florence)
Florence FLO	FSS	(803)	662-8197
Greer GSP (Greenville) DF	FSS	(803)	Greenville 239-3738 ▬ Spartanburg 585-5470

SOUTH DAKOTA

Location and Identifier		Area Code	Telephone
Aberdeen ABR	FSS	(605)	225-5264 ▬
Huron HON (W. W. Howes)	FSS	(605)	352-3806 ▬
Pierre PIR	FSS	(605)	224-5894
Rapid City RAP DF	FSS	(605)	FI 2-2280
	WB	(605)	342-1160 (0700-2300 daily)

SOUTH DAKOTA (Con't)

Location and Identifier		Area Code	Telephone
Sioux Falls FSD (Joe Foss Fld)	FSS	(605)	ED 8–4841
	WB	(605)	338–1441 ◆
Watertown ATY	FSS	(605)	TU 6–4581

TENNESSEE

Location and Identifier		Area Code	Telephone
Blountville	WB	(615)	323–8752 ◆
Bristol	WB	(615)	323–8242 ◆
Chattanooga	WB	(615)	892–3747 ◆
Crossville CSV (Crossville-Cumberland) DF	FSS	(615)	484–6711
Dyersburg DYR	FSS	(901)	285–4842
			(0600–2200)
Jackson JKS (McKeller)	FSS	(901)	427–0611
Johnson City	WB	(615)	323–8242
Kingsport	WB	(615)	323–8242 ◆
Knoxville TYS (McGhee-Tyson)	FSS	(615)	577–0795
	WB	(615)	577–4805 ◆
(from Maryville)		(615)	982–3682
Maryville (See Knoxville)			
Memphis MEM DF	FSS	(901)	398–9260/9
	WB	(901)	398–2347 ★
Nashville BNA (Metropolitan)	FSS	(615)	254–6552/3
	WB	(615)	255–8732 ★
	WB	(615)	256–4468 ◆
Tri City TRI	FSS	(615)	323–7242

TEXAS

Location and Identifier		Area Code	Telephone
Abilene ABI	FSS	(915)	OR 4–6915 ▬
Alice ALI	FSS	(512)	MO 4–4291
Amarillo AMA (Air Terminal)	FSS	(806)	349–1608 ▬
Austin AUS (Robert Mueller)	FSS	(512)	GR 8—6695 ▬
Beaumont BPT (Jefferson County)	FSS	(713)	RA 2–0288
	WB	(713)	722–7011 ◆
Brownsville BRO (Rio Grande Valley International)	FSS	(512)	LI 6–6421
	WB	(512)	542–8231 ◆
Childress CDS	FSS	(817)	WE 7–3892
College Station CLL (Easterwood)	FSS	(713)	VI 6–8784/5
Corpus Christi	WB	(512)	883–3008 ◆
Cotulla COT	FSS	(512)	TR 9–2417
Dalhart DHT	FSS	(806)	CH 9–2006
Dallas Love Field DAL	FSS	(214)	FL 2–8491 ▬
	WB	(214)	FL 7–4343 ★
Del Rio	WB	(512)	775–2115
El Paso ELP (International)	FSS	(915)	778–6449
	FSS	(915)	778–6448 ▬
	WB	(915)	778–4487 ★

TEXAS (Con't.)

Location and Identifier		Area Code	Telephone
Fort Worth FTW (Meacham)	FSS	(817)	MA 4–8471
	WB	(817)	283–1571 ★
	WB	(817)	283–3961 ◆
Galveston GLS (Scholes)	FSS	(713)	SH 4–3255
	WB	(713)	763–5670
Gregg County GGG (Longview)	FSS	(214)	MI 3–2612
Houston HOU (International)	FSS	(713)	MI 5–6693 ▬
	WB	(713)	644–1507 ★
✓Junction JCT (Kimble Co.)	FSS	(915)	HI 6–3214
			(0600–1800)
			(Other hrs San Antonio)
Lubbock LBB	FSS	(806)	PO 2–5802
	WB	(806)	762–2380 ◆
Lufkin LFK (Angelena County) DF	FSS	(713)	NE 4–3544
McAllen MFE (Miller Field)	FSS	(512)	MU 2–2878/9
Midland MAF (Air Terminal)	FSS	(915)	563–2611 ▬
Mineral Wells MWL	FSS	(817)	FA 5–5922
Palacios PSX	FSS	(713)	824–2218
Port Arthur	WB	(713)	722–7011 ◆
San Angelo SJT (Mathis)	FSS	(915)	655–5638
	WB	(915)	655–9780 ◆
San Antonio SAN (International)	FSS	(512)	TA6–9575 ▬
Tyler TYR (Pounds)	FSS	(214)	LY 4–6301
Victoria	WB	(512)	445–1276 ◆
Waco ACT	FSS	(817)	PL 2–4811
	WB	(817)	754–1582 ◆
Wichita Falls SPS Sheppard AFB/Wichita Falls Air Trml	FSS	(817)	322–2011 ▬
Wink INK DF	FSS	(915)	LA 7–3351

UTAH

Location and Identifier		Area Code	Telephone
Bryce Canyon BCE	FSS	(801)	834–5311
Cedar City CDC DF	FSS	(801)	JU 6–9131
✓Delta DTA	FSS	(801)	4741
			(0600–1800)
			(Other hrs Salt Lake City)
Milford	WB	(801)	387–2361
			(0900–1700)
Salt Lake City SLC (Municipal No. 1) DF	FSS	(801)	524–5183 ▬
	FSS	(801)	364–5571 ★
Wendover	WB	(801)	665–2382
			(0430–2015)

VERMONT

Location and Identifier		Area Code	Telephone
Burlington	WB	(802)	862–2475
			(0600–2300)
Montpelier MPV (Barre–Montpelier)	FSS	(802)	223–2376
	FSS	(802)	878–3393
			(from Burlington)

VIRGINIA

Location and Identifier		Area Code	Telephone
Blackstone BKT	FSS	(703)	292-3826 (0600-2200)
Bristol	WB	(615)	323-8242◆
Chantilly (Dulles)	WB	(703)	661-8526◆
Charlottesville CHO (Charlottesville/ Albermarle)	FSS	(703)	973-3909
Danville DAN	FSS	(703)	SW 3-1163
Lynchburg (Muni-Preston Glenn	WB	(703)	239-0345◆ (0600-1930)
Newport News PHF (Patrick Henry)	FSS	(703)	877-0200
Norfolk	FSS	(703)	627-7084▬
Richmond RIC (Byrd Flying Field)	FSS	(703)	737-5249▬
Roanoke ROA (Woodrum)	FSS	(703)	362-1668▬

WASHINGTON

Location and Identifier		Area Code	Telephone
Bellingham BLI ... DF	FSS	(206)	734-6400
Ephrata EPH	FSS	(509)	SK 4-2361
Hoquiam HQM (Bowerman)	FSS	(206)	GE 9-3432
Olympia	WB	(206)	357-8386
Seattle SEA (Boeing)	FSS	(206)	RO 2-4000
	WB	(206)	682-3655★
Spokane SFF (Felts)	FSS	(509)	KE 5-2906
	WB	(509)	624-5674◆
Toledo TDO (Toledo-Winlock)	FSS	(206)	864-2371 (0500-2100)
Walla Walla ALW (City-County)	FSS	(509)	JA 9-1413
Wenatchee EAT (Pangborn)	FSS	(509)	TU 4-5654
Yakima YKM	FSS	(509)	GL 3-9862
	WB	(509)	GL 7-4371

WEST VIRGINIA

Location and Identifier		Area Code	Telephone
Beckley	WB	(304)	252-3171◆
Bluefield BLF (Mercer County)	FSS	(304)	325-6521
Charleston CRW (Kanawha)	FSS	(304)	342-1371▬
Elkins EKN (Randolph)	FSS	(304)	636-0810
	WB	(304)	636-1246◆
Huntington HTS (Tri-State)	FSS	(304)	453-3951▬
Martinsburg MRB	FSS	(304)	AM 3-9353

WEST VIRGINIA (Con't.)

Location and Identifier		Area Codes	Telephone
Morgantown MGW ... DF	FSS	(304)	292-3632
Parkersburg PKB (Wood County)	FSS	(304)	485-6421
	WB	(304)	422-3661 (0700-1400 Mon-Fri) (0700-1200 Sat)
Wheeling HLG (Ohio County)	FSS	(304)	CR 7-1252

WISCONSIN

Location and Identifier		Area Codes	Telephone
Eau Clare EAU	FSS	(715)	835-9642
Green Bay GRB (Austin Straubel) .. DF	FSS	(414)	494-7417▬
La Crosse LSE	FSS	(608)	785-1225▬
Lone Rock LNR (Tri-County)	FSS	(608)	583-2661
Madison MSN (Traux)	FSS	(608)	244-1033
	WB	(608)	249-6644◆
Milwaukee MKE (General Mitchell)	FSS	(414)	481-4414
	FSS	(414)	744-5860▬
	WB	(414)	744-7810★
Wausau AUW	FSS	(715)	845-7396

WYOMING

Location and Identifier		Area Codes	Telephone
Casper CPR (Air Terminal) ... DF	FSS	(307)	235-1555▬
Cheyenne CYS	FSS	(307)	638-9711
	WB	(307)	638-3642◆
Lander	WB	(307)	332-2718
Laramie LAR (General Brees Field)	FSS	(307)	745-4010
Rawlins RWL	FSS	(307)	324-3241
Rock Springs RKS ... DF	FSS	(307)	362-2121
Sheridan SHR (Sheridan County)	FSS	(307)	674-7426▬
Worland WRL ... DF	FSS	(307)	347-4122

PUERTO RICO

Location and Identifier		Area Codes	Telephone
San Juan SJU (Puerto Rico Intl)	IFSS		791-1780
	WB		791-0320

VIRGIN ISLANDS

Location and Identifier		Area Codes	Telephone
St. Croix STT (Christiansted, Alexander Hamilton)	FSS		773-1425

NOTICE TO THE EDITOR

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Indicate Appropriate Part. Date ______________________________

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3–A, Notices to Airmen

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AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE 1966–67

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Part

Effective Date	Part 1	Part 2	Part 3	Part 3A
June 9				May 27
June 23			June 6	June 6
July 7				June 27
July 21			July 1	July 1
August 4				July 25
August 15	July 15			
August 18			August 1	August 1
September 1				August 22
September 15			August 29	August 29
September 29				September 19
October 13			September 26	September 26
October 27				October 17
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12
January 5			December 16	December 16
January 19				January 9
February 2			January 16	January 16
February 15	January 20			
February 16				February 6
March 2			February 10	February 10
March 16				March 6
March 30			March 13	March 13
April 13				April 3
April 27			April 10	April 10
May 11				May 1

Editorial Staff Telephone Number, Area Code 202—WO 2–4063.

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930-1730 Sun. Up to 12,500'.

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200-SS; intermittently week-days. Up to 14,500' MSL.

Godsden: 1000-1700 Weekends. Up to 12,500'.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500'.

ARIZONA

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100' MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000' MSL and 24,000' MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800-1700. Up to 12,500'.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000' MSL; 3 mi ESE. Up to 7000' MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000' MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000'.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000' MSL.

●**Marked Tree:** 2 mi S. Weekends SR-SS. Up to 12,500'.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200-SS. Up to 12,500'.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500'.

●**California City Arpt:** Weekends and holidays. Up to 15,000' MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500'. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

El Centro NAF: 0700-1600P (1500-2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700' MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000' MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800'-15,000', opening at absolute alts of 2000'-2500'. Center of drop zone lctd at 36°38'N, 121°46'W in Restricted Area R-2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000'.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000'.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500' MSL.

Imperial Beach: Weekends. 0800-1200. Up to 1500'.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000' MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld. 7 days a wk. SR-SS.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Los Banos Arpt: 3.5 mi SE; edge of V-113. Suns SR-SS. Up to 10,000'.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000' MSL.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000'.

Sonoma Valley: Weekends (occansionally during the wk.) 0800-SS. Up to 15,000'.

Taft Arpt: About 6 mi E. Daily, up to 20,000'.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Daylgt hrs. Up to 8,000'.

●**Boulder:** 3 mi NE of arpt. Wk-ends and holidays. 0800-SS. Up to 13,000' AGL.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500-0800 and 1600-1900. Up to 18,000' MSL.

●**Denver, C&S Arpt:** 2.5 mi SE of Cherry Creek Dam. 0800-SS weekends and holidays. Up to 13,200' MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays. Dalgt hrs. Up to 13,000'.

Greeley, Weld Co Mun Arpt: Weekends 1500-0200. 4½ mi SSE from 7500' AGL.

●**Loveland:** 5 mi NE. Wk-ends and holidays. Up to 18,000' MSL.

CONNECTICUT

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200-SS. Up to 12,500'.

Harwinton: 0800-dusk. Weekends. Up to 7200'.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500'. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000'.

FLORIDA

●**Clewiston, Airglades Arpt:** Up to 15,000'. Daily SR-SS. Occasional ngts.

Deland Mun Arpt: Up to 7,000' daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500'.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

Homestead AFB: Occasionally. Up to 1,000′ MSL.

Hovey Arpt: Weekends. Up to 10,000′.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800–1600. Up to 15,000′. (2) 2 mi NW of Herlong Fld. Weekends. 0800–1600. Up to 7,500′.

Kissimmee Arpt: Daily and weekends. Up to 12,000′.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500′.

●**Ovita Arpt:** Wk-ends. 0700–SS. Up to 12,000′ MSL.

Palatka: Suns. 0800–1600. Up to 7500′.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.

Umatilla Arpt: 32 NM 325° rad Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.

Zephyrhills Ahpt: Sundays, occasionally weekdays. Up to 12,500′.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500′ AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500′.

Cohutta: 10 mi N Dalton. Weekends. 1200–1900. Up to 13,500′.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500′.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

Fitzgerald: Daily, mostly on Sats and Suns. 0900–1700. Up to 12,500′.

Fort Benning: Daily. 0600–2000. Up to 18,000′.

Ft. Steward: Daily, Sats and Suns. Up to 15,000′.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935′ MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000′.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

Waycross: Weekends. 1000–1600. Up to 12,500′.

IDAHO

●**Boise, Floating Feather Arpt:** Wk-days. Hvy on wk-ends 0700–1900. Up to 12,000′ MSL.

Weiser: 1500Z–SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.

●**Antioch:** 4 mi E. Wk-ends and holidays.

●**Belleville, Flying Dutchman:** 1 mi SW city. Wk-ends SR–SS. Up to 12,500′ MSL.

Chicago, Hammond Arpt: Weekends. Up to 12,500′.

Clinton: ½ mi E. Weekends. 1200–SS. Up to 10,000′.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

●**Hebron Arpt:** Wed, wk-ends, and holidays. Up to 7500′ MSL.

Hillsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

Pekin: 3 mi S. Weekends. 1200–SS. Up to 15,000′.

●**Sanger Arpt:** Wk-ends SR–SS. Up to 12,500′ MSL.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500′.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500′.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500′.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.

●**Des Moines:** 3 mi radius of Camp Dodge. SR–SS wk-ends. 1500–SS wk-days. Up to 12,500′ MSL.

Mechanicsville: 5S. 2 mi radius. Weekends and occasionally wk days SR–SS. Up to 15,000′.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

Northwood: Weekends. 0900–SS. Up to 13,000′.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500′.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000′.

KANSAS

●**Concordia:** 3 mi SE. SR–SS wk-ends. Up to 10,500′ MSL.

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000′.

Fort Leavenworth Military Reservation: Weekends and holidays Occasionally weekdays. Up to 12,500′.

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500′.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000′. Occasionally ngts.

●**Manhattan:** 2 mi SE of Tuttle Creek Dam. SR–SS wk-ends and holidays. Up to 12,500′ MSL.

Oxford: Weekends. 1300–1900. Up to 13,000′.

●**Topeka, Skyranch Arpt:** SR–SS wk-ends and holidays, occasional wkdays. Up to 12,500′ MSL.

KENTUCKY

Ashland, Boyd Co.: Wed and wkends.

Fort Knox: 3 mi SW of Godman AAF weekends and holidays, 1300–1700. Up to 10,000′.

Greenville-Muhlenberg Co. Arpt: Suns and holidays 0700–SS. Up to 12,500′.

LOUISIANA

Abbeville: Weekends. 0900–SS. Up to 17,000′.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500′.

●**Bodcaw:** SR–SS wk-ends. Up to 13,000′ MSL.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900–SS. Up to 12,000′.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.

Fort Polk, Polk AAF: 2 nmi radius.

●**Hammond:** SR–SS seven days a wk. Up to 15,000′.

●**Mansfield Arpt:** SR–SS wk-ends. Up to 13,000′ MSL.

●**Pollock Arpt:** SR–SS wk-ends; 1200–SS wkdays. Up to 13,000′ MSL.

Thibodaux: 1 mi E on Hwy 1. Weekends. 0900–SS. Up to 13,000′. 20 mis N. Weekends. SR–SS. Up to 12,500′.

Youngsville: Weekends. 0900–SS. Up to 13,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland Mun: Up to 12,000′.

Edgewood: 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

Frederick Mun: Glider activities wkends and holidays.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

Patuxent River NAS: On V–213. 2200–2400 weekdays; 1500–2100Z Sat, Sun and holidays. Up to 12,500′.

Stevensville, Carroll's Arpt: Weekends. Up to 12,500′.

MASSACHUSETTS

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Day time only. Up to 15,000′.

Orange Muni Arpt: Day time only. Up to 15,000′.

Pepperell Arpt: Day time only. Up to 15,000′.

Tauton Muni Arpt: Day time only. Up to 15,000′.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500′.

E. Tawas, Iosco Arpt: Up to 13,500′.

Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500′.

Gaylord: Weekends. Dawn-Dusk. Up to 12,500′.

Grand Rapids (So. Kent Fld): Weekends. 0900–dusk. Up to 12,000′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Lake City: 6mi E, 1 N. Weekends. SR–SS. Up to 12,500′.

LaSalle: 5 mi S of Custer Arpt. 0900–SS. Up to 12,500′.

Marksfield, Lawton: Sat and Sun. 0900–SS. Up to 15,000′.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Midland: Sat, Sun, Wed. SR–SS. Up to 12,500′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

Nunica: 1 mi SE. Up to 15.000′.

Saginaw Arpt: Weekends. Up to 13,000′.

Tecumseh Arpt: Daily. Up to 17,500′.

Traverse City: Weekends. SR–SS. Up to 12,500′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Monticello, Flynn Arpt: Wk-end. Up to 12,000′ AGL.

Rosemount: 3 mi SE. Up to 2500′.

Stanton, Carleton Arpt: Wed 1600–SS during June; July and Aug wk-ends 0800–SS. Up to 14,500′ AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000′.

Jackson: 10 mi SW. 0900–SS. Weekends. Up to 12,500′.

Louisville: 5 mi S. Weekends. Up to 12,500′.

●**Lucedale, Farmco Arpt:** Weekends and holidays SR–SS. Up to 12,500′ MSL.

Ocean Springs, Gulfpark Arpt: SR–SS Sats, Suns, holidays and occasional wk days. Up to 12,500′ AGL.

MISSOURI

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lobmaster Arpt: Weekends and holidays. Up to 11,000′.

Valleroy: Weekends. 1200–1800. Up to 8000′.

Vichy, Rolla Natl Arpt: Daily SR–SS. Up to 12,500′.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800–dusk. Up to 10,000′.

Glendive: Sat and Sun, occasionally wk days.

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Kalispell: Weekends. 0700–2000. Up to 10,000′.

Laurel: Sat, Sun. 0900–1800. Up to 10,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500′ MSL.

Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500′.

●**Silver Springs Arpt:** Daily SR–SS. Up to 12,500′ MSL.

NEW HAMPSHIRE

Hollis: 3 mi SW Boire Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600′.

Hooksett: Tues, Sat Sun, and holidays. 0900–2100. Up to 12,500′.

Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900–dusk. Up to 5,200′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500′.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

Manville, Decker Arpt: ½ mi SW rnwy. Dawn to dusk. Up to 15,000′.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500′.

NEW MEXICO

Alamogordo Mun Arpt: Dalgt hrs Fri, Sat, Sun. Up to 16,000′ MSL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000′.

●**Belen:** 3½ mi SE. Suns SR–SS. Up to 12,500′ AGL.

●**Roswell Arpt:** 8 mi W. Wk-ends 0700–1400. Up to 7,500′ MSL.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.

●**Gardiner Airfield:** 1 mi radius wk-ends and holidays SR–SS. Up to 15,000′ MSL.

Greene Arpt: Within 5 mi radius. Daily 1100Z–SS. Up to 12,500′.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500′.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MSL.

Randolph Arpt: Daily. Up to 15,000′.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000′.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500′ MSL

Wallkill (Galesville): Every day of wk. 1000-2130. Up to 14,000′.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500′.

● **Charlotte, Brackenborough Arpt:** 5 mi N. Wed and Fri 1500–SS, Sat and Sun 1200–SS. Up to 14,000′.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900-1630. Up to 13,000′.

New River MCAF: On V157 1100–0300 daily from 23,500′.

Oak Grove OLF: Sat, Sun and holidays from 0800-1830. Up to 15,000′.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000′.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12,000′.

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

●**Ada Arpt:** Wk-ends SR–SS. Up to 12,500′ AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000′.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500′.

●**Brunswick Arpt:** 1300–0100Z daily. Up to 8,500′ MSL.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000′

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000′.

●**Darbydale:** Daily 1000–SS. Up to 12,500′ AGL.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500′ AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.

Galloway, Columbus Arpk: Wkends, holidays dalgt hrs and Wed 1600–SS.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.

Lenox Arpt: Sat and Sun. 0900 2100 EDST. Up to 12,500′.

Lima: Weekends. 1200–SS. Up to 12,500′.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000′ MSL.

Oberlin: Fri. 1600–dark. Up to 12,500′.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500′ AGL.

Piqua Arpt: Up to 12,000′. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500′.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500′.

South Dayton Arpt: Up to 18,000′. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.

Valley City: 3.5 mi W. Wed 2200–0100Z. Up to 12,500′ AGL.

●**Van Wert:** Weekends 1200–SS. Up to 12,500′ AGL.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500′.

Frederick: Weekend. Dawn-dusk. Up to 10,000′.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

●**Albany:** 1½ mi NE of arpt. Weekends 1000–SS. Up to 13,000′ MSL.

Ashland Arpt: Dalgt. wk ends, holidays and evenings. Up to 9,000′.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 1 mi N and 3 mi SE. Periodically June thru Sept. From 2000′ AGL.

●**Creswell:** 2 mi SW. Thurs, Fri, Sat, 1600–2030. Up to 15,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR–SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR–SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

Portland: ½ mi S and 2 mi E of Scholl Arpt, Orchards, Wash.

Portland: 4 mi N Aurora Flight Strip, Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

●**Coudersport, Cherry Springs Arpt:** Up to 10,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

●**Erie:** 12 mi E. Wk-ends and holidays. SR–SS. Up to 12,500′ AGL.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 15,000′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

●**Maytown, Donegal Arpt:** 2 mi NE. Weekend SR–SS. Up to 15,000′ MSL.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

New Hanover Arpt: Most activities weekends. Up to
● 15,000′ MSL.

Quakertown, Upper Bucks Co. Arpt: 7 mi E. Suns 0900–SS. Up to 12,500′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

●**Darlington Co. Arpt:** Thurs, Sat and Sun SR–SS. Up to 15,000′ MSL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR–SS. Up to 12,500′.

Pierre: 4 mi NW arpt. Wk-ends SR–SS. Up to 10,000′ MSL.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

●**Pierre:** 4 mi NW arpt. Wk-ends SR-SS. Up to 10,000′ MSL.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens, McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

●**Alvarado:** 1 mi N of City. Wkdays 1200–SS. Wk-ends SR–SS. Up to 15,000′ AGL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

●**Bonham Arpt:** Weekends SR–SS. Up to 12,500′.

●**Cedar Hill:** Weekends SR–SS. Up to 12,500′.

Clear Springs Arpt: Suns. Up to 12.500′.

●**Commerce Arpt:** Weekdays only SR–SS. Up to 10,000′.

●**Dickenson, T & C Drop Zone Arpt:** 1 mi radius. Up to 12,500′

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AAF. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Caloway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampassas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

Littlefield Mun: 2200Z–SS daily. SR–SS Sat, Sun, holidays. Up to 12,000′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

●**Green River:** 6 mi NNE of arpt. Daily SR–SS. Up to 10,000′ MSL.

Hill AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Forest, New London Arpt: Daily. Up to 11,000′.

●**Hanover Arpk:** 12 nmi N of Richmond VOR on radial 352.

Daily and occasionally ngts. Up to 13,000' MSL.

Hopewell Arpt: Weekends. Up to 9000'.

Manassas: On the Herndon 195 radial 15 mi. Weekends and holidays. Occasional ngt jumping. Up to 12,500'.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000'.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000'.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000'.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000'.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000'.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000'.

Suffolk Muni Arpt: Cont. Up to 12,000'.

●**Target Fld:** 2 mi NNE of Manassas. Sat, Sun, and holidays SR–SS. Up to 13,000' MSL.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000'.

West Point Arpt: Weekends and holidays. Up to 12,000'.

WASHINGTON

Bellingham Arpt: 6NE. 7days per wk. Up to 12,500' AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000' MSL.

●**Coupeville:** 1 mi S. Weekends and holidays, occasional weekday afternoons. Up to 12,500' AGL.

●**Issaquah-Seattle Skyport:** Daily SR–SS. Up to 24,000' AGL.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500' AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000'.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500' MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000'.

Richland Arpt: 3 mi N SR to 1 hr after SS. Up to 12,000' AGL.

Snohomish Arpt: Daily. Up to 24,000' MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500'.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

●**Antigo Arpt:** 2 mi S. Weekends SR–SS. Up to 12,500' AGL.

●**Baraboo, Bell Arpt:** Daily 1745Z–1815. Up to 7800' MSL.

Lake Delton, Dells Arpt: ¾ mi N. McBoyle. Daily 1900–1920Z, 2300–2320Z, 0100–0120Z. Up to 7800' MSL.

Lake Geneva Wal-Co. Farms Arpt: Wed, Sat and Sun SR—one hr after SS. Up to 15,000'.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500'.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500' MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500' AGL.

●**Oskkosh:** 8 mi NW. Weekdays 1700–1900. Weekends 1000–2100. Up to 13,000' AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000'.

● WYOMING

Laramie: 2 mi S. Weekends SR–SS. Up to 20,000' MSL.

Sheridan Muni Arpt: Weekends and holidays SR–SS. Up to 16,500' MSL.

• PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston	V2 GDM (L-25)
Kennedy	V91 RVH (L25)
LaGuardia	V91 V487 Stamford (L25)
Newark	V489 Budd Lake (L25)

ALBUQUERQUE

Denver	Aden V19W SAF V83 PUB V19E IOC (L-4, 6)
Kansas City	Aden V19W SAF V19 LVS V190 DHT V234 V280 Farley (L-6)
Los Angeles	GNT V12 EED V208 TNP V264S ONT. (L-4, 3)
Phoenix	GNT V190N SJN V190 Lake. (L-4)

ATLANTA METRO AREA

Birmingham	Chattahoochee V18 ANB (L20, 14)
Charlotte	Conyers V66 FML (L-20)
Cincinnati	Crabapple V97 Dry Ridge (L-20, 22)
Chicago	Crabapple V51 CGT (L-14, 20, 21, 23)
Dallas	Chattahoochee V18 MLU V94 V477E Forney (L20, 14, 18, 17, 13)
Dulles	Conyers V66 FML V454 LVL V155 GVE V39E Brandy (L20-22)
Houston	Chattahoochee V18 MEI V194 MCB V222 LCH V222N Monument (L20, 14, 18)
Kennedy	Conyers V66 FML V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
Jacksonville	Griffin V243 AYS V243W Callahan (L20, 18)
La Guardia	Conyers V66 FML V454 LVL V157 RIC V20 V213 RBV (L-20, 22, 24)
Memphis	Chattahoochee V18 BHM V176N HL1 (L20, 14)
Miami	Brooks V97 ABY V159 V159W CTY V7 LAL V157 Cypress (L20, 18, 19)
Newark	Conyers V66 FML V454 V157 V20 V213 V29 V433 Rocky Hill (L-20, 22, 24)
Orlando	Griffin V243 AYS V157 OCF V159W Clermont (L20, 18, 19)
Pittsburgh	Crabapple V97 TYS V115 PKB V119 HLG (L-20. 22, 24)
Tampa	Brooks V97 ABY V159 V159W CTY V7 Homo V35E Hazel (L20, 18, 19)
Washington	Conyers V66 FML V454 LVL V157 Ironsides (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta	BHM V18S Palmetto (L14, 20)
New Orleans	TCL V18 MEI V455 HBG V455W Madison (L14, 18 17)
Pittsburgh	GAD V115E CHA V115 PKB V119 HLG (L-14, 22, 24)

BOSTON METRO AREA

Albany	V14 Melrose (L-25)
Buffalo	V14 Bellona V31 ROC V142 Grant (L-25)
Cleveland	V14 ALB V72 Hadley V232 Mentor (L-25, L-24)
Kennedy	PUT V475E V16 RVH (L25)

BOSTON METRO AREA—Continued

LaGuardia	Millbury V3 V445 Stamford (L25)
Newark	Millbury V3 V292 Budd Lake (L25, 24)
Philadelphia	Millbury V3 Warrington (L25, 24)
Rochester	V14 Bellona V31 Fishers (L-25)
Washington	PUT V308 North Barch (L25, 24)
Windsor Locks	PUT PUT 295 rad Meadow, (L25)

BUFFALO

Boston	GEE V14 GDM (L-12, L-25)
Cleveland	Langford V464 DKK V14 Mentor (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 QG (L-12, 23)
Kennedy	V252 BGM V270 V34 CMK BDR RVH (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 Liberty (L-12, 25)
Midway	V84 LAN V218 Surf (L-12, 23)
Newark	V252 GEE V147 TOH V226 Budd Lake (L12-25)
O'Hare	V84 OBK (L12, 23)
Philadelphia	V33 PSB V238 ESR (L-12, 24)
Pittsburgh	V115 EWC (L-12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn DCA (L12-24)

CHARLESTON, W. VA.

Cincinnati	V128 California (L22)
Cleveland	V115 PKB V59 V427 V40 Sharon (L22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 HLG (L-22, 24)
Washington	V4S EKN V4 HRN (L22, 24)

CHARLOTTE

Atlanta	CLT V194 OCR (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 RBV (L-20, 22, 24)
Miami	FML V37 ALD V157 Cypress (L20, 18, 19)
Washington	New London V454 LVL V157 Ironsides (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	EON V171 SCJ V243 Kennesaw (L23, 21, 14, 20)
Denver	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	Musky V100 ELX V218 Troy (L23, 12)
Dulles	EON V144 Blue Ridge (L23, 24)
Kennedy	V6 SEG V170 V276 RBV (L23, 24)
Indianapolis	EON V128 (L-23)
La Guardia	V6 V433 Liberty (L-23, 24)
Los Angeles	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	Big Run V173 CAP V9 Kerrville (L-23, 21, 14)
Miami	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 LAL V157 Cypress (L23, 21, 14, 20, 18, 19)
Minneapolis	Malta V218 RST V82 FGT (L23, 11, 10)
Newark	V6 SEG V30 Rocky Hill (L-23, 24)
Philadelphia	V6 PSB V238 ESR (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 EWC (L23, 24)
San Francisco	Malta V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
St. Louis	Big Run V191 V14 Staunton (L23, 21)
Tampa	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 Homo V35E Hazel (L23, 21, 14, 20, 18, 19)
Tulsa	API V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	EON V144 ESL V4 HRN (L23, 24)

From Midway only

Cleveland	Crib V6 SKY V232 Vermillion (L23)
Des Moines	API V8 CVA V233 CID V172 TNU (L23-11)
Kansas City	API V10 Kearney (L-23, 11, 21)
Metro Wayne Co.	Crib V10 Milan (L23)
Omaha	API V8 CVA V233 CID V172 EOL (L23, 11)
Willow Run	Crib V10 Milan (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 Vermillion (L-23)
Des Moines	V172 TNU (L-23, 11)
Kansas City	V84 BDF V10 Kearney (L-23, 11, 21)
Metro Wayne Co.	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Omaha	V172 EOL (L23, 11)
Willow Run	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Windsor	V100 V218 Troy (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 OCR (L-21, 22, 20)
Charleston W. Va.	V128S YRK V128 (L22)
Chicago	V97 CGT (L-21, 23)
Detroit (City)	V275 SVM (L21, 23)
Indianapolis	V97 (L-21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 Liberty (L22-24)
Louisville	V47 ABB V51 (L-21)
Metro Wayne Co.	V275 Milan(L21, 23)
Miami	V47 ABB V51 Crabapple V97 ABY V159 V159W CTY V7 LAL V157 Cypress (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 Rocky Hill (L22-24)
Pittsburgh	V128S YRK V44 PKB V119 HLG (L22-24)
St. Louis	V47 ABB V44 Mounds (L21)
Willow Run	V275 Milan (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 GDM (L-23, 24, 12, 25)
Buffalo	V14N Crystal Beach (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 Niles (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	V42E QG V90 (L-23)
Kennedy	ACO V30 SEG V170 V276 RBV (L24)
Indianapolis	CLE V14 (L23)
La Guardia	ACO V30 CIP V6 Amboy V433 Liberty (L-24)
Metro Wayne Co.	V42E V103 Lasalle (L23)
Miami	V443 V133 V35 V185 Dover V157 Cypress (L23 22, 20, 18, 19)
Newark	ACO V30 Rocky Hill (L-24)
Philadelphia	ACO V30 PSB V238 ESR (L-24)
Pittsburgh	ACO V297 EWC (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	ACO V103 IRL V37 Millsboro V92 FRR V4 HRN (L-24)
Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L-23, 24, 22)
Indianapolis	Grindell V210 (L-23)
LaGuardia	APE V12 V106 V6 V433 Liberty (L23, 24)
Pittsburgh	APE V12 HLG (L-23, 24)
St. Louis	V12N V210 Staunton (L23, 21)
Toledo	V38 FDY V47 (L-23)
Washington	APE V144 ESL V4 HRN (L-23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	Lakeside V114 Claude (L-13)
Atlanta	DAL V278 V18S Palmetto (L13, 14, 20)
Dulles	DAL V278 V16 BNA V140 MOL V251 V174 Blue Ridge (L13-14-21-22)
El Paso	Joshua V94 INK V16 RIO (L-13, 4)
Houston	Trinity Fork V477 LOA V477W Fairbanks (L-13, 17)
Los Angeles	Joshua V94 INK V16 SFL V94 GBN V461 BXK V16 ONT (L-13, 4, 3)
Memphis	DAL V278 TXK V16 Walls (L13-L14)
Midway	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
New Orleans	DAL V114 French (L-13, 17)
O'Hare	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
San Antonio	Red Oak V15E ACT V17 AUS V17W Bergheim (L-13, 15)
Tulsa	DAL V15 Gunter PNX MLC V131 OKM Haskell; or DAL V15 OKM Haskell (L-13, 6)
Washington	DAL V278 V16 BNA V140 MOL V16N GVE V16 Ironsides (L-13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 CGT (L-23)
Cleveland	V275 V47W FDY V8 MFD V246 Sharon (L23)
Detroit/City	V275 SVM (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V275 Milan (L23)
Willow Run	V275 Milan (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N Langston (L23-21-6)
Washington	V12 APE V144 ESL V4 HRN (L-23, 24)

DENVER METRO AREA

Chicago	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT (L-8, 11, 23)
Kennedy	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX RBV (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 RBV (L12, 24)

From City and Windsor only

Newark	V221 ERI V170 SEG V30 Rocky Hill (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 ESR (L-12, 24)
Ft. Wayne	SVM V170 Leslie V45 JXN V221 (L-23)
Midway	SVM V170 V84 V7E V116 (L-23)
Milwaukee	SVM V170 PMM V30S Pike (L-12, 23)
O'Hare	SVM V170 V84 OBK (L-23)

From Metro or Willow Run only

Buffalo	V221 V90 V14N Crystal Beach (L-12)
Cleveland	Stripe V297 Vermillion (L23)
Ft. Wayne	Dexter V221 (L-23)
Midway	Pinckney V170 V84 V7E V116 (L-12, 23)
Milwaukee	Dexter V116 JXN V45 Leslie V170 PMM V30S Pike (L-12, 23)
O'Hare	Pinckney V170 V84 OBK (L-12, 23)
Pittsburgh	Stripe V133 Bay V6 V42 ACO V297 EWC (L23, 24)
Rochester	V221 V90 V14 V2 (L-12)
Washington	Stripe V133 ZZV V144 ESL V4 HRN (L23, 24)

EL PASO

Dallas	HUP V66 MAF V16S BGS V16 ABI V66 Denton V114 Lakeside (L-4, 13)
Los Angeles	EWM V94 GBN V461 BXK V16 ONT (L-4, 3)
San Antonio	HUP V198 Boerne (L-4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 PRR (L-19)

HOUSTON METRO AREA

Atlanta	LaPorte V20S LCH V20 LFT V70 MVC V20 MGM V20N Sharps (L17, 18, 14, 20)
Dallas	Gulf Coast V477E Forney (L-17, 13)
New Orleans	LaPorte V20S LCH V20 Turtle (L-17)
San Antonio	Andrau V222 Hunter (L-17, 15)

INDIANAPOLIS

Detroit	V11 SVM (L-23)
Evansville	V11W SCJ V11E (L-21)
Kennedy	V50 DAY V12 V106 V276 RBV (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V1 V10 Milan (L23)
Midway	V97W V97 CGT (L-23)
Newark	V50 DAY V12 V106 V30 Rocky Hill (L23, 24)
Pittsburgh	V50 DAY V12 HLG (L-23, 24)
St. Louis	V14 Staunton (L21)
Willow Run	V11 V10 Milan (L23)

JACKSONVILLE

Atlanta	Kings V5E DBN V5 McDonough (L18, 20)
Dulles	Clinch V3E SAV V3 RDU V155 GVE V39E Brandy (L18-20-22)
Kennedy	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 BGT (L-18, 20, 22, 24)
LaGuardia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 RBV (L-18, 20, 22, 24)
Miami	Blue Jacket V267 New River (L-19)
Newark	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 Rocky Hill (L-18, 20, 22, 24)
Norfolk	Clinch V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN V266 Burdette (L18-20-22)
Orlando	Blue Jacket V267 Woodruff (L-18, 19)
Philadelphia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 OOD (L-18, 20, 22, 24)
Washington	Clinch V3E SAV V3 RDU V155 LVL V157 Ironsides (L-18, 20, 22)

KANSAS CITY METRO AREA

Midway	Excelsior V116 JOT (L-21, 23)
O'Hare	Excelsior V116 JOT (L-21, 23)
St. Louis	BSP V12 MTS (L-21)
Wichita	Bonner Springs V12 De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 Liberty (L-21, 22, 24)
Newark	V4 CRW V106 V30 Rocky Hill (L-21, 22, 24)

MEMPHIS

Atlanta	HLI V176 BHM V18S Palmetto (L14, 20)
Dallas	Prichard V16S PBF V16 DAL (L13-L14)
Dulles	Moscow V16S GHM V16 V140 MOL V251 V174 Blue Ricge (L14, 21, 22)
Midway	Cuba V9W V9 JOT (L-14, 21, 22)
New Orleans	Savage V9W GRW V9 Madison (L14-L17)
O'Hare	Cuba V9W V9 JOT (L-14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 Ironsides (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta	MIA V7 LAL V157 AMG V5 McDonough (L19, 18, 20)
Charlotte	MIA V7 LAL V157 ALD V37 FML (L19-L18-L20)
Chicago	MIA V35 FMY V7 LAL V157 AMG V51 DBN V267 TYS V97 CGT (L19, 20, 22, 21, 23)
Cleveland	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 Sharon (L19, 20, 22, 21, 23)
Detroit (city)	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 QG (L19, 20, 22, 21, 23)
Dulles	Guppy drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E **Brandy** (L19-L20-L22)
Habana	Gary V51 EYW drct SF/Rbn or PRR/Rbn B19 EYW drct SF. Rbn (L19)
Kennedy	Guppy drct Halibut Control 1150 ILM V1 BGT (L-19, 20, 22, 24)
Jacksonville	Martin V3E PBI V3 DAB V3E Shiloh (L-19)
La Guardia	Guppy drct Halibut Control 1150 ILM V1W V213 RBV (L-19, 20, 22, 24)
Metro Wayne Co	MIA. V7 LAL V157 ALD V37 PSK PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)
Newark	Guppy drct Halibut Control 1150 ILM V1 V29 V433 Rocky Hill (L-19, 20, 22, 24)
Pittsburgh	MIA V7 LAL V157 ALD V37 AGC (L19-L20-L22-L24)
Tampa	MIA V7 V35 Hansen (L19)
Washington	Guppy drct Halibut Control 1150 ILM V1 ISO V157 Ironsides (L-19-L20-L22)
Willow Run	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 API; or Taylor V7E V116 Surf (L-12, 23)
Detroit	V2S MKG V2 SVM (L-12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 RBV (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	Prescott V2 V97 V171 V6 API (L-10, 11, 23)
O'Hare	Prescott V2 V97 Lakewood (L-10, 11, 23)

MONTGOMERY

Washington	TPE V154 MCN V56 AGS V155 V157 Ironsides (18, 20, 22)

NASHVILLE

LaGuardia	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V213 RBV (L21, 22, 24)
Newark	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 Rocky Hill (L21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta	PCU V70 MVC V20 MGM V20N Sharps (L17, 18, 20)
Birmingham	PCU V455 MEI V154 V209 BWA drct BHM/LOM (L-17, L-18, L-14)
Dallas	Walker V-114N AEX V-114 GGG V-94 V-477E Forney (L-17, 13)
Dulles	PCU V70 MVC V20 SBV V39 GVE V39E Brandy (L-17, 18, 20, 22)
Houston	TBD V20S LFT V20 LCH V222N Monument (L-17)
Kennedy	PCU V70 MVC V20 V213 ENO V44 Barnegat (L-17, 18, 20, 22, 24)
Memphis	PCU V9E MCB V9 GRW V9E Independence (L-14)
Newark	PCU V70 MVC V20 V213 ENO V29 V433 Rocky Hill (L-17, 18, 20, 22, 24)
Washington	PCU V70 MVC V20 SBV V39 GVE V16 Ironsides (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	Sound POU V487 Brainard (L-25)
Bradley	Sound V433 Waterbury (L25)

From Newark only

Albany	SAX POU V487 Brainard (L-25)
Atlanta	SBJ V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	SBJ V3 V93 (L24)
Boston	SAX POU V58 V167 Sterling (L25)
Buffalo	TVE V188 V147 V36 Dale (L-25)
Cincinnati	SBJ V3 V166 V4 V174 V128 California (L24-22)
Cleveland	TVE V232 Mentor (L-24, 23)
Detroit (City)	TVE V188 TOH V147 V116 QG (L24, 23)
Detroit Metro Area	TVE V188 V147 V116 QG (L24, 23)
Dulles Int'l	SBJ V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	TVE V232 ETG V226 V119 V210 (L24-23)
Jacksonville	SBJ V3 V29 SBY V1 V437 SAV V3 St. Marys (L24, 22, 20, 18)
Louisville	SBJ V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co	TVE V188 TOH V147 V116 QG (L24, 23)
Miami	SBJ V3 V29 SBY V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E Oakland (L-24, 22, 20, 19)
Nashville	SBJ V3 EMI V39 V140 Lebanon (L24, 22, 14)
New Orleans	SBJ V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18)
Norfolk Metro Area	SBJ V3 V29 SBY V1 CCV (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 Warrington (L24)
Pittsburgh	TVE V232 ETG V226 EWC (L-24)
Providence	SAX POU V58 V130 Lafayette (L25)
Rochester	SAX V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	SAX V483 (L-25)
Toledo	TVE V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	TVE V188 TOH V147 V116 QG (L24, 23)

From Kennedy only

Atlanta	Dutch V308 ENO V213 V20 SPA V20N OCR (L24, 22, 20)
Baltimore	Dutch V308 ENO V268 (L24)
Boston	HTO V139 HTM (L25)
Buffalo	HUO V126 V36 Dale (L-25)
Cleveland	HUO V126 V58 IPT V188 JFN V14 Mentor (L25, 24, 23)
Detroit	HUO V126 V116 QG (L25, 24, 23)
Dulles	HUO V39 V162 HAR V223 Sugar Loaf (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	Dutch V139 V1 V437 V3 St. Marys (L-24, 22, 20, 19)
Louisville	HUO V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
Metro Wayne Co.	HUO V126 BFD V172 V188 V103 Lasalle (L25, 24, 23)
Miami	Dutch V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E Oakland (L-24, 22, 20, 19)
Montreal	Sound POU V487 (L-25, 26)
New Orleans	Dutch V308 OTT V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	Dutch V139 CCV (L-24, 22)
O'Hare	HUO V126 V116 V170 V84 OBK (L25, 24, 23)
Philadelphia	Dutch V312 CYN V16 V239 OOD (L24)
Pittsburgh	HUO V126 AVP V58 V226 EWC (L-25, 24)
Providence	HTO V139 (L25)
Rochester	HUO V249 V34 Fishers (L-25)
Syracuse	HUO V483 (L25)
Toronto	HUO V126 AVP V36 (L-25, 12)
Washington	Dutch V308 North Beach (L24, 18)
Willow Run	HUO V126 AVP V116 QG (L25, 24, 23)

From LaGuardia only

Atlanta	Paterson V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	Paterson V3 V93 (L24)
Boston	Sound V467 MAD V475E V16 BOS (L25)
Buffalo	SAX V36 Dale (L-25, 12)
Cincinnati	Paterson V3 V166 V4 V174 V128 California (L24-22)
Cleveland	SAX TOH V188 JFN V14 Mentor (L-24, 23)
Columbus	SAX TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	SAX TOH V147 V116 QG (L24, 23)
Dulles Intl	Paterson V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	SAX TOH V226 V119 V210 (L24, 23)
Louisville	Paterson V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	Sound POU V487 (L-25)
Metro Wayne Co.	SAX TOH V147 V116 QG (L24, 23)
Nashville	Paterson V3 EMI V39 V140 Lebanon (L24, 22, 14)
O'Hare	SAX TOH V147 V116 V170 V84 OBK (L24, 25)
Philadelphia	Paierson V3 Warrington (L24)
Pittsburgh	SAX TOH V226 EWC (L24)
Providence	Sound V467 V475E V130 Lafayette (L24, 25)
Rochester	SAX V116 AVP V29 V423 V34 Fishers (L25)
Toronto	SAX V36 (L-25, 12)
Washington	Paterson V3 ESR V140 Dayton GTN/Rbn DCA (L24)
Willow Run	SAX TOH V147 V116 QG (L24, 23)

NORFOLK METRO AREA

Charlotte	CVI V194 RDU V66 Midland (L22, 20)
Dulles	Farnham V286 Brandy (L22)
Kennedy	CCV V1 BGT (L-22, 24)
Jacksonville	CVI VI CHS V437 SAV V3 St. Marys (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 RBV (L-22, 24)
Newark	CCV V1 SBY V29 V433 Rocky Hill (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 OOD (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 Ironsides (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	Prague V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	Crescent V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 Brooks (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E Shiloh (L-19)

PHILADELPHIA METRO AREA

Baltimore	EWT V166 V93 (L-24)
Boston	MIV 101 rad V139 HTM (L24, 25)
Buffalo	Boyer V170 SLT ELZ V119 Burns V36 Dale (L-25)
Cleveland	Boyer V162S HAR V12 AGC V8 BSV V40 Sharon (L-24, 23)
Detroit (City)	Boyer V162S V12 V37 V103 V42 QG (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 Sugar Loaf (L24)
Kennedy	Columbus V123 RBV (L-24)
Jacksonville	MIV 205 rad ATR V1 V437 V3 St. Marys (L24, 22 20, 19)
LaGuardia	Columbus V213 RBV (L-24)
Metro Wayne Co.	Boyer V162S V12 V37 V103 Lasalle (L24, 23)
Miami	MIV 205 rad ATR V1 Control 1150 Sturgeon Tarpon PBI V159E Oakland (L28, 27, 19)
Newark	V433 Rocky Hill (L-24)
Norfolk	MIV 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	Boyer V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	EWT V166 V140 Dayton GTN/Rbn DCA (L24)
Willow Run	Boyer V162S V12 V37 V103 Lasalle (L24, 23)

PHOENIX

Albuquerque	Lake V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 Harrington Ranch (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N Farley (L-4, 6)

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 Sharon (L-23, 24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
Willow Run	V40 V42 V103 Lasalle (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 OCR (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 (L-24) EMI
Boston	Freeport V119 V276 TON V35 ELM V72 ALB V2 GDM (L-24, 25)
Charleston W. Va.	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 Niles (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
Detroit	V40 V42 V103 Lasalle (L24, 23)
Kennedy	V119 V276 RBV (L-24)
Indianapolis	V210; or Kilgore V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 Liberty (L24)
Newark	V119 V276 Reedsville V106 SEG V30 Rocky Hill (L-24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
St. Louis	Kilgore V210 Staunton (L23, 21)
Washington	V103 V92 FRR V4 HRN (L-24)

From Allegheny Co. only

Chicago	AGC V8 FDY V422 CGT V7 Niles (L-24, 23)
Kennedy	V12 V106 Reedsville V276 RBV (L24)
LaGuardia	V12 V106 SEG V6 V433 Liberty (L24)
Newark	V12 V106 V30 Rocky Hill (L24)

PROVIDENCE

Kennedy	V167 V16 RVH (L25)
LaGuardia	V167 V3 V445 Stamford (L52)
Newark	V167 HFD V292 Budd Lake (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 OOD (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 GDM (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 Park (L-12, 23)
Kennedy	V147 GEE V252 BGM V270 V34 CMK BDR RVH (L25)
LaGuardia	V147 ABE V6 V433 Liberty (L-25)
Newark	V147 TOH V226 Budd Lake (L25)
Philadelphia	V147 ABE V149 V3 Warrington (L25–24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn DCA (L25–24)
Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 Lasalle (L12, 23)

SAN ANTONIO

Dallas	Mission V17 ACT V15 Desoto (L-15, 17, 13)
El Paso	Guadalupe V222 Rio (L-15, 4)
Houston	Clear Spring V198 ELA V180 Arcola (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	LIN V113 RNO V6 MBW V100 Lakewood (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	Shrimp V27 SBP V137 Pozo V25 V12 FIM (L-2, 3)
Kennedy	LIN V113 RNO V6 MBW V100 OBK V84 LAN V2 SVM V116 ERI V170 V276 RBV (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	TOY V12 Wilbur V11 IND V14 FDY V8 MFD V246 Sharon (L-21, 23)
Columbus	TOY V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 Lakeside (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 Justin (L-21, 6, 13)
Indianapolis	TOY V12 Wilbur V11 (L-21, 23)
Kansas City	V4 Missouri City (L-21)
Memphis	V9 Kerrville (L-21, 14)
Midway/O'Hare	V9 JOT (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	TOY V52 EVV V4 HRN (L-21, 22)

SYRACUSE

Kennedy	V273 HNK V34 CMK BDR RVH (L25)
LaGuardia	V153 V29 V6 V433 Liberty (L25)
Newark	V273 Budd Lake (L25)
Philadelphia	V29 BGM V149 V3 Warrington (L25–24)

TAMPA METRO AREA

Atlanta	V97W Scallop V97 Brooks (L-19, 18, 20)
Miami	Gibson V97 MIA (L-19)

TORONTO

Kennedy	V34 CMK BDR RVH (L12, 25)
LaGuardia	V36 V147 V6 V433 Liberty (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 JOT (L-6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 Lakeside (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis	V140 FYV V72 V9 Lemay (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston	Swan Point V268 V139 HTM (L24–25)
Chicago	Flint Stone V8 FDY V422 CGT (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 Sharon (L-24, 23)
Jacksonville	BRV V3 St. Marys (L-22, 20, 18)
Kennedy	Swan Point V123 RBV (L24)
LaGuardia	Swan Point V123 RBV (L24)
Newark	Swan Point V433 Rocky Hill (L24)
Philadelphia	Swan Point V123 OOD (L24)
Pittsburgh	Flint Stone V8 AGC (L-24)

From Washington only

Atlanta	CSN V140 MOL V143 LYH V222 AVL V35 Clemson V20N OCR (L-22, 20)
Charleston W. Va.	CSN V308 V174 V4 Ivydale (L22)
Charlotte	BRV V3 RDU V66 Midland (L22, 20)
Dallas	CSN V140 BNA V16 DAL (L22, 21, 14, 13)
Greensboro	CSN V140 MOL V143 Leaksville (L-22)
Harrisburg	Ashburn V8N V223 (L-24)
Jacksonville	BRV V3 St. Marys (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21, 14)
Miami	BRV V3 V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E Oakland (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	CSN V140 Lebanon (L22, 21)
New Orleans	CSN V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W Madison (L22, 20, 14, 18)
Norfolk Metro area	BRV V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 St. Marys (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	EMI V166 EWT V157 RBV or EMI V166 V239 V238 ACY V1 BGT (L-24)
Jacksonville	CSN V39 GVE V155 FAK V3 St. Marys (L24)
LaGuardia	EMI V166 EWT V157 RBV (L-24)
Miami	CSN V39 GVE V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E Oakland (L22, 20, 19)
Newark	EMI V166 EWT V433 Rocky Hill (L-24)
Philadelphia	Braddock HRN 354 rad V251 V238 ESR (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E Langaton (L6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Part 1)

(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence

via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Philipsburg VORTAC 082 radial Philipsburg VORTAC 082 radial to Philipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**—Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transiton**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 090 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 082 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, heading 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

FLORIDA

•PAHOKEE "PHK" VORTAC SHUTDOWN

DME shutdown Aug 15 til aprxly Aug 19. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V51	VRB VORTAC to PHK VORTAC	VRB VORTAC to Tmpry PHK Int via VRB 191 rad	3,000	17,000
V51/ V267	PHK VORTAC to MIA VORTAC	Tmpry PHK Int to MIA VORTAC MIA 346 rad	2,500	17,000
V267	Bailey Int to Dixie Ranch Int	Bailey Int to Tmpry Dixie Ranch Int via ORL 162 rad	6,000	17,000
V267	Dixie Ranch Int to PHK VORTAC	Tmpry Dixie Ranch Int to Tmpry PHK Int via ORL 162 rad	14,000	17,000
V492	LBV VOR to PHK VORTAC to PBI VORTAC	LBV VOR to Tmpry PHK Int to PBI VORTAC via LBV 093 rad and PBI 281/29 rad	2,000	17,000
V267E	PHK VORTAC to Hillsboro Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
PHK VORTAC	Tmpry PHK Int—MIA VORTAC 346 rad and PBI VORTAC 281/29 rad	3,000
Dixie Ranch Int	ORL VORTAC 162 rad and VRB VORTAC 224 rad	6,000
Monet Int	LBV VOR 085 rad and PBI VORTAC 314/17 rad	2,500
Andrews Int	LBV VOR 107 rad and PBI VORTAC 219 rad	3,000
Delray Int	MIA VORTAC 033 rad and PBI VORTAC 166/14 rad	2,000
Morgan Int	LBV VOR 083 rad and PBI VORTAC 343/15 rad	3,500
Pompano Int	LBV VOR 107 rad and PBI VORTAC 181/13 rad	4,000
St. Lucie Int	VRB VORTAC 191 rad and PBI VORTAC 314/34 rad	1,500
Willy Int	LBV VOR 082 rad and PBI VORTAC 358/16 rad	4,000
Canal Int	MIA VORTAC 346/37 rad and PBI VORTAC 252 rad	2,000
Sunshine Int	None	
Cristol Int	None	
Sugar Cane Int	None	

•ST. PETERSBURG "PIE" VORTAC

Aug 31, VOR will be shutdown until aprxly Sept 2. For substitute route structure during shutdown use the following:

Low Altitude Airways

Airways	Existing Airways	Substitute Routes	MEA	MAA
V97/ 492	Arcadia Int to Gibson Int	Arcadia Int to Tmpry Gibson Int via LBV 312 rad	5,000	17,000
V97/ 492	Gibson Int to PIE VORTAC	Tmpry Gibson Int to PIE VORTAC via LBV 312 rad	8,800	17,000
V97	PIE VORTAC to Shrimp Int	None		
V97	Shrimp Int to Scallop Int	Tmpry Shrimp Int to Scallop Int via TLH 153 rad	11,000	17,000
V97	Scallop Int to Clam Int	Scallop Int to Clam Int via TLH 153 rad	8,000	17,000
V97W	PIE VORTAC to Scallop Int	None		

Continued on next page

SUBSTITUTE ROUTE STRUCTURE

Airways	Existing Airways	Substitute Routes	MEA	MAA
V35W	PIE VORTAC to Oyster Int	None		
V35W	Oyster Int to CTY VOR	Tmpry Oyster Int to CTY VOR via CTY 184 rad	4,500	17,000
V35W	PIE VORTAC to FMY VOR FMY VOR	Tmpry PIE Int to FMY VOR via SRQ 346/165 rad and FMY 315 rad	2,000	17,000
V35	FMY VOR to Murdock Int	FMY VOR to Tmpry Murdock Int via FMY 330 rad	2,000	17,000
V35	Murdock Int to PIE VORTAC	Tmpry Murdock Int to Tmpry PIE Int via FMY 330 rad	7,000	17,000
V35	PIE VORTAC to Richey Int	Tmpry PIE Int to Richey Int via CTY 167 rad	9,000	17,000
V35	Richey Int to CTY VOR	Richey Int to CTY VOR to via CTY 167 rad	4,000	17,000
V35E/ 441	PIE VORTAC to Hazel Int	Tmpry PIE Int to Tmpry Hazel Int via GNV 189 rad	9,500	17,000
V35E/ 441	Hazel Int to Homo Int	Tmpry Hazel Int to Homo Int via GNV 189 rad	5,500	17,000
V152N	PIE VORTAC to Dade City Int	None		
V441E	PIE VORTAC to Webster Int	None		
V152	PIE VORTAC to Porter Int	Tmpry PIE Int to Tmpry Porter Int via ORL 242 rad	5,000	17,000
V152	Porter Int to ORL VORTAC	Tmpry Porter Int to RSL VORTAC via ORL 242 rad	2,500	17,000
V152S	PIE VORTAC to LAL VORTAC VORTAC	Tmpry PIE Int to LAL VORTAC via LAL 262 rad	02,000	17,000

Existing Reporting Points	Temporary Reporting Points	MRA
PIE VORTAC	Tmpry PIE Int—LAL VORTAC 262 rad and FMY VOR 330 rad	7,000
Shrimp Int	CTY VOR 184 rad and OCF VORTAC 240 rad	3,000
Oyster Int	LAL VORTAC 288 rad and OCF VORTAC 225 rad	4,500
Hazel Int	GNV VORTAC 189 rad and LAL VORTAC 300 rad	5,000
Hanson Int	FMY VOR 330 rad and LAL VORTAC 224 rad	4,000
Gibson Int	LBV VOR 312 rad and LAL VORTAC 224 rad	5,000
Porter Int	ORL VORTAC 242 rad and LAL VORTAC 300 rad	2,500
Bayport Int	LAL VORTAC 306 rad and GNV VORTAC 189 rad	5,500
Orange Grove Int	ORL VORTAC 242 rad and LAL VORTAC 350 rad	2,500
Murdock Int	FMY VOR 330 rad and LAL VORTAC 201 rad	2,000
Eddy Int	CTY VOR 167 rad and OCF VORTAC 240 rad	2,000
Webster Int	None	
Hudson Int	None	
Snook Int	None	
Dandee Int	None	
Crab Int	None	
Chub Int	None	
Bluegill Int	None	
Dawson Int	None	
Gumbo Int	None	
Darby Int	None	
Landfall Int	None	
Wilson Int	None	
Renton Int	None	
South Bat Int	None	
Mussell Int	None	
Dade City Int	None	

Jet Routes

Routes	Existing Routes	Substitute Routes	MEA	MAA
J41	MIA VORTAC to PIE VORTAC	MIA VORTAC to Tmpry Int via MIA 315 rad	FL 180	450
J41	PIE VORTAC to TLH VORTAC	Tmpry PIE Int to TLH VORTAC via TLH 153 rad	FL 180	450
J103	PIE VORTAC to ORL VORTAC	Tmpry PIE Int to ORL VORTAC via ORL 242 rad	FL 180	450
J43	PIE VORTAC to EYW VOR	Tmpry PIE Int to EYW VOR via FMY 330/190 rad and EYW 345 rad	FL 180	450
J119	MIA VORTAC to PIE VORTAC	MIA VORTAC to Tmpry PIE Int via MIA 297 rad to FMY VOR and FMY 330 rad	FL 180	450
J119	PIE VORTAC to GNV VORTAC	Tmpry PIE Int to GNV VORTAC via GNV 189 rad	FL 180	450

Existing Reporting Points	Temporary Reporting Points	MRA
PIE VORTAC	Tmpry PIE Int—FMY 330 rad and ORL 242 rad	FL 180

TALLAHASSEE "TLH" VORTAC

Due to unusable radials the following substitute route is effective immediately:

Jet Routes

Routes	Existing Routes	Substitute Routes
J2 20/ 41	MAI VOR to TLH to TLH VOR	Via MAI 106 rad
J2	TLH VOR to JAX	COP 50 mi E of TLH VOR

IDAHO

•TWIN FALLS "TWF" VOR SHUTDOWN

VOR shutdown until aprxly Sept 14. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V253	LCU VOR to TWF VOR to BOI VOR-VORTAC	LCU VOR to BYI VOR via LCU 341 rad and the BYI 161 rad	14,500	17,500
		thence via V4 to BOI VOR	as published	
V269	LWL VOR to TWF VOR to BYI VORTAC	LWL VOR to BYI VOR via V6 to LCU VOR	as published	
		thence via substitute V253 to BYI VOR	14,500	17,500
V4	BOI VORTAC to BYI VORTAC	as published	9,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
TWF VOR	None	
Jerome VHF Int	None	
Buhl Int	None	
Rock Creek Int	None	
Malta VHF Int	PIH VORTAC 209 rad and BYI VORTAC 117 rad	11,400
Hazelton Int	None	

ILLINOIS

•PEORIA "PIA" VORTAC SHUTDOWN

Aug 23, VORTAC will be shutdown until aprxly Aug 24. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V48	BRL VOR to PIA VOR	BRL VOR to Tmpry PIA Int via BRL VOR 088 rad	3,500	9,700
V48	PNT VOR to PIA VOR	PNT VOR to Tmpry PIA Int via PNT VOR 257 rad	2,900	17,500
V116	UIN VOR to PIA VOR	UIN VOR to Tmpry PIA Int via UIN VOR 048 rad	7,000	17,500
V116	JOT VOR to PIA VOR	JOT VOR to Tmpry PIA Int via JOT VOR 231 rad	7,000	17,500
V233	CAP VOR to PIA VOR	CAP VOR to Tmpry PIA Int via CAP VOR 347 rad	2,900	17,500
V233	CVA VOR to PIA VOR	CVA VOR to Tmpry PIA Int via CVA VOR 157 rad	3,700	17,500
V262	BDF VOR to PIA VOR	BDF VOR to Tmpry PIA Int via BDF VOR 194 rad	3,500	9,700
V434	MLI VOR to PIA VOR	MLI VOR to Tmpry PIA Int via MLI VOR 130 rad	2,800	17,500

Existing Reporting Points	Temporary Reporting Points	MRA	MAA
PIA VOR	Tmpry PIA Int—BDF VOR 194 rad and BRL VOR 088 rad	2,800	17,500
Atlanta Int	CAP VOR 032 rad and DEC VOR 322 rad	2,300	17,500
Canton Int	BRL VOR 100 rad and UIN VOR 048 rad	4,500	17,500
Dunlap Int	BDF VOR 194 rad and PNT VOR 275 rad	3,000	17,500
Elmwood Int	BDF VOR 220 rad and MLI VOR 130 rad	2,200	17,500
London Int	BDF VOR 220 rad and BRL VOR 088 rad	1,900	17,500
Luther Int	BMI VOR 251 rad and CAP VOR 347 rad	2,800	17,500
Mora Int	BDF VOR 155 rad and VOR 257 rad	2,000	17,500
Pekin Int	PNT VOR 244 rad and VOR 347 rad	2,900	17,500
Virginia Int	CAP VOR 265 rad and BRL VOR 138 rad	4,600	17,500
Washburn Int	BDF VOR 155 rad and JOT VOR 231 rad	4,500	17,500

LOUISIANA

•GRAND ISLE "GNI" RBN SHUT DOWN

Rbn shut down til aprxly Aug 26. For substitute route structure during shutdown, use flwg:

Route	Existing Route	Substitute Route	MEA
Control 1226	GLS RBN to GNI RBN	GLS RBN to GNI VORTAC via GLS 084 brg and GNI 264 rad COP 40 mi west of GNI VORTAC	2,000
Control 1226	GNI RBN to Egmont Key RBN	GNI VORTAC to Egmont Key RBN via GNI 094 rad and Egmont Key RBN 102 brg. COP 40 mi east of GNI VORTAC	2 000
		18,000 and above	
		GNI VORTAC to Neptune Int via GNI 094 rad and from Neptune Int to the Egmont Key RBN RBN via the Egmont Key 102 brg	18,00

MICHIGAN

•ESCANABA "ESC" VORTAC SHUTDOWN

Aug 22, VORTAC will be shutdown until aprxly Oct 13. For substitute route structure during shutdown use the following:

Low Altitude

Routes	Existing Routes	Substitute Routes	MEA	MAA
V7	MNM VOR to ESC VOR	MNM VOR to Tmpry ESC Int via MNM 035 rad	2,400	17,500
V133	MQT VOR to ESC VOR	MQT VOR to Tmpry ESC Int via MQT 158 rad	4,000	17,500
V133	TVC VOR to ESC VOR	TVC VOR to Tmpry ESC Int via TVC 317 rad	10,000	17,500
V430	IMT VOR to ESC VOR	IMT VOR to Tmpry ESC Int via IMT 096 rad	3,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA	MAA
ESC VOR	MNM VOR 035 rad and and MQT VOR 158 rad	4,000	17,500

•PELLSTON "PLN" VOR SHUTDOWN

Aug 22, VOR will be shutdown until aprxly Aug 23. For substiture route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V193	SSM VOR to PLN VOR	SSM VOR to PLN Rbn via SSM VOR 218 rad and PLN Rbn 017 brg From PLN Rbn	2,900	17,500
V193	TVC VOR to PLN VOR	TVC VOR to PLN Rbn via TVC VOR 035 rad and 209 brg From PLN Rbn	3,000	17,050
V45	APN VOR to PLN VOR	APN VOR to PLN Rbn via APN VOR 309 rad and 115 brg From PLN Rbn	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
PLN VOR	PLN Rbn	2,900
Pine Int	SSM VOR 218 rad (22 mi DME) and FSP VOR 160 rad	3,000

MISSISSIPPI

•JACKSON "JAN" VORTAC SHUTDOWN

Aug 29, thru Aug 31, VORTAC will be shut down. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V11	LUL VOR to JAN VORTAC	LUL VOR to Tmpry JAN Int via LUL VOR 310 rad	3,500	17,500
V9E	MCB VORTAC to JAN VORTAC	None		
	JAN VORTAC to GRW VORTAC	None		
V9	MCB VORTAC to JAN VORTAC	MCB VORTAC to Tmpry JAN Int via MCB VORTAC 358 rad	4,000	17,500
	JAN VORTAC to GRW VORTAC	Tmpry JAN Int to GRW VORTAC via GRW VORTAC 169 rad	3,000	17,500
V9W	MCB VORTAC to JAN VORTAC	None		
	JAN VOYTAC to GRW VORTAC	None		
V245	HEZ VOR to JAN JAN VORTAC	HEZ VOR to Tmpry JAN Int via HEZ VOR 041 rad	5,500	17,500
	JAN VORTAC to UBS VORTAC	None		
V18S	MLU VORTAC to JAN VORTAC	None		
	JAN VORTAC to Rankin Int	None		
V18	MLU VORTAC to JAN VORTAC	MLU VORTAC to Tmpry JAN via LMU VORTAC 082 rad	7,500	17,500
	JAN VORTAC to MEI VORTAC	Tmpry JAN Int to MEI VORTAC via MEI VORTAC 272 rad	3,500	17,500
V18N	MLU VORTAC to JAN VORTAC	None		
	JAN VORTAC to MEI VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Florence Int	LUL VOR 292 rad and MCB VORTAC 358 rad and MEI VORTAC 254 rad	3,200
Berryville Int	MEI VORTAC 283 rad and GRE VORTAC 169 rad	5,000
Branch Int	MCB VORTAC 011 rad and MEI VORTAC 272 rad	3,500
Rankin Int	MEI VORTAC 257 rad and LUL VOR 310 rad	3,000
Olive Int	MCB VORTAC 043 rad and HBG VORTAC 330 rad	2,000
Rose Hill Int	MEI VORTAC 225 rad and LUL VOR 005 rad	2,800
Flora Int	GRW VORTAC 185 rad and MLU VORTAC 082 rad	5,000
Sharon Int	JAN Rbn 043 mag brg and GRW VORTAC 155 rad	2,700
JAN VORTAC	Tmpry JAN Int—MCB VORTAC 358 rad and MEI VORTAC 272 rad NOTE: Int Flagged MRA 4000	4,000

All other ints based on JAN VORTAC are unusable.

Continued on next page

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J35	MSY VORTAC to JAN VORTAC	MSY VORTAC to Tmpry JAN Int via MSY VORTAC 351 rad and MCB VORTAC 171 rad to MCB VORTAC thence via MCB VORTAC 358 rad	FL 180	450
	JAN VORTAC to MEM VORTAC	Tmpry JAN Int to MEM VORTAC via MEM VORTAC 179 rad	FL 180	FL 450
J4	SHV VORTAC to JAN VORTAC to MEI VORTAC	SHV VORTAC to MEI VORTAC via SHV VORTAC 087 rad and MEI VORTAC 272 rad	FL 180	FL 450
J20	SHV VORTAC to JAN VORTAC to CEW VORTAC	SHV VORTAC to CEW VORTAC via SHV VORTAC 087 rad and MEI VORTAC 272 rad to	FL 180	FL 450
		MEI VORTAC thence via MEI VORTAC 125 rad and CEW VORTAC 308 rad	FL 250	FL 450

Existing Reporting Points	Temporary Reporting Points	MRA
JAN VORTAC	Tmpry JAN Int—GRW VORTAC 169 rad and MEI VORTAC 272 rad	FL 180

NEW MEXICO

• SANTA FE "SAF" VORTAC SHUTDOWN

VOR shut down til aprxly Aug 25. For substitute route structures during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V62	SAF VORTAC to Cabezon Int	None		
V62	SAF VORTAC to ACH VOR	Tmpry SAF Int to ACH VOR via ACH VOR 285 rad	11,000	17,000
V19	ABQ VORTAC to SAF VORTAC	ABQ VORTAC to Tmpry SAF Int via ABQ VORTAC 308 rad	13,000	17,000
V19	SAF VORTAC to LVS VORTAC	Tmpry SAF Int to LVS VORTAC via LVS VORTAC 249 rad	12,500	17,000
V83	OTO VOR to SAF VORTAC	OTO VOR to Tmpry SAF Int via OTO VOR 334 rad	10,000	17,000
V83	SAF VORTAC to TAS VOR	Tmpry SAF Int to TAS VOR via TAS VOR 174 rad	11,000	17,000
V19W	ABQ VORTAC to SAF VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
SAF VORTAC	Tmpry SAF Int-OTO VOR 334 rad and ACH VOR 285 rad	11,000
Rencona Int	LVS VORTAC 233 rad and ACH VOR 285 rad	11,000
Cabezon Int	None	
Aden Int	None	

NEW YORK

• ITHACA "ITH" VOR SHUTDOWN

VOR will be shut down til aprxly Oct 1. For substitute route structure during shutdown, use flwg:

Airways	Existing Airways	Substitute Routes	MEA	MAA
V34	Bellona Int to ITH VOR	None		
V34	ITH VOR to HNK VOR	None		
V423	BGM VOR to ITH VOR	None		
V423	ITH VOR to Scipio Int	None		
V428	ITH VOR to GGT VOR	ITH to GGT VOR via GGT VOR 249 rad	3,800	17,500
V428	ELM VOR to ITH VOR	ELM VOR to ITH Int via ELM VOR 055 rad	3,800	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
ITH VOR	Tmpry ITH Int: BGM VOR 335 rad GGT VOR 249 rad	3,800
Cortland Int	Cortland Int: GGT VOR 249 rad and BGM VOR 007 rad	3,800

NORTH CAROLINA

• ASHEVILLE "AVL" VORTAC SHUTDOWN

Aug 16, thru Aug 18, VOR shutdown. DME shutdown Aug 15 til aprxly Aug 26. For substitute route structure shutdown, during use flwg:

Airways	Existing Airways	Substitute Routes	MEA	MAA
V35	AVL VORTAC to Roan Mtn. Int	Rmpry Asheville Int to HMV VORTAC via HMV 188 rad	9,500	17,500
V53	SPA VORTAC to AVL VORTAC	SPA VORTAC to tmpry Asheville Int via SPA VORTAC 325 rad	6,000	17,500
V185	SOT VOR to AVL VORTAC	SOT VOR to tmpry Asheville Int via SOT 122 rad	8,000	17,500
V222	TOC VOR to HKY VOR	TOC VOR to HKY VOR via TOC 050 rad and HKY 243 rad	6,000	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V35....	Clemson Int to AVL VORTAC	None		
V35E..	AVL VORTAC to Linville Int	None		
V185E.	AVL VORTAC to Ottway Int	None		
V296...	AVL VORTAC to Cherokee Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Asheville VORTAC............	Tmpry Asheville Int: TOC VOR 050 rad and SPA VORTAC 325 rad	6,000
Cleveland Int...............	SPA VORTAC 269 rad and VORTAC 019 rad	5,000
Mitchell Int................	HMV VORTAC 188 rad and AND HKY VOR 260 rad	8,500

All other ints based on Asheville VORTAC unusable.

OHIO

BRIGGS "BSV" VORTAC SHUTDOWN

Due to unusable sectors, following substitute route is efctv immediately.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V40,76	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,76,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500
BSV VORTAC		Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad	3,100	

TENNESSEE

•DYERSBURG "DYR" VOR SHUT DOWN

Aug 15 thru Aug 16, VOR shutdown. DME shut down Aug 15 til Aug 20 For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V11....	MEM VORTAC to DYR VORTAC	MEM VORTAC to Tmpry DYR Int via MEM VORTAC 021 rad	4,300	17,500
	DYR VORTAC to PUK VORTAC	Tmpry DYR Int to PUK VOR via PUK VOR 198 rad	4,000	17,500
V11W..	Joiner Int to DYR VORTAC	None		
V140...	ARG VORTAC to DYR VORTAC	ARG VORTAC to Tmpry DYR Int via ARG VORTAC 088 rad	6,000	17,500
	DYR VORTAC to BNA VORTAC	None		
V140S .	DYR VORTAC to Humbolt Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Humbolt Int...............	HLI VOR 023 rad and JKS VOR 296 rad	3,000
Anderson Int...............	MEM VORTAC 058 rad and HLI VOR 023 rad	2,000
Gilmore Int................	MEM VORTAC 320 rad and NQA VOR 271 rad	11,00
Holland Int................	MAW VOR 176 rad and ARG VOR 088 rad	2,500
DYR VORTAC.................	Tmpry DYR Int—MEM VORTAC 021 rad and JKS VOR 294 rad	4,000

All other ints based on DYR VORTAC are unusable.

VIRGINIA

PULASKI "PSK" VORTAC SHUTDOWN

Tmpry VOR comsnd. Ident: PSK. Freq: 115.9, Class: H-VORW. during indefinite shutdown of Pulaski VORTAC. For substitute route structure use the follows:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	PSK VOR to Frankford Int.	Via Tmpry PSK VOR 016 rad to Frankford Int.	6,000 PSK-Zenith 8,000 Zenith-Frankford MRA 17,500	

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-16...	PSK VOR to ROA VOR	Via Tmpry PSK VOR 070 rad to midpoint	5,000	17,500
V-138..	PSK VOR to Table Int	Via Tmpry PSK VOR 101 rad to Table Int	5,500	17,500
V-45...	PSK VOR to Francisco Int	Via Tmpry PSK VOR 154 rad to Francisco Int.	6,000	17,500
V-37	PSK VOR to COP...	Via Tmpry PSK VOR 189 rad to COP	7,000	17,500
COP 40 NM from PSK VOR & 86 NM from FML VOR				
V-37W.	PSK VOR to HKY VOR	Via Tmpry PSK VOR 202 rad and HKY VOR 021 rad	5,500	17,500
V-6	PSK VOR to Sugar Grove Int	Via Tmpry PSK VOR 242 rad to Sugar Grove Int	7,700	17,500
V-16N.	PSK VOR to BLA VOR	Via Tmpry PSK VOR 258 rad to midpoint	6,600	17,500
V-46...	PSK VOR to BLF VOR	Via Tmpry PSK VOR 295 rad and BLF VOR 115 rad	6,000	17,500
V-60	PSK VOR to BKW VOR	Via Tmpry PSK VOR 335 rad to midpoint	6,000	17,500

Continued on next page

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-22	TYS VOR to PSK VOR	TYS 064 rad and Tmpry PSK VOR 249 rad	FL180	FL450
	PSK VOR to GVE VOR	Tmpry PSK VOR 068 rad and GVE VOR 252 rad	FL180	FL450
J-48	EMI VOR to PSK VOR	EMI VOR 240 rad and Tmpry PSK VOR 054 rad	FL180	FL450
J-53	AGC VOR to PSK VOR	AGC VOR 195 rad and Tmpry PSK VOR 012 rad	FL180	FL450
	PSK VOR to SPA VOR	Tmpry PSK VOR 209 rad and SPA VOR 026 rad	FL180	FL450

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VOR	Tmpry PSK VOR	5,000
Zenith Int	Tmpry PSK VOR 016 rad and CLD VOR 255 rad and ROA 292 rad	6,000
Table Int	Tmpry PSK VOR 101 rad and ROA VOR 181 rad	5,500
Willis Int	None	
Lindside Int	Tmpry PSK VOR 035 rad and ROA VOR 292 rad.	6,000
Saw Mill Int	Tmpry PSK VOR 189 rad and BLF VOR 148 rad	7,000
Burch Int	None	
Max Meadows Int	Tmpry PSK VOR 242 rad and BLF VOR 157 rad	7,700
Bland Int	Tmpry PSK VOR 258 rad and and BLF VOR 157 rad	6,600
Hicksville Int	BLF VOR 115 rad and BKW VOR 177 rad	6,000

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

•ABERDEEN

42nd Edition, August 18, 1966

No hazardous changes.

•ALBANY

57th Edition, July 21, 1966

Add UNICOM Barnes Muni arpt 42°09'39"N, 72°42'48"W. Add ctl twr freq 122.7R Oneida County.

•ALBUQUERQUE

57th Edition, August 18, 1966

No hazardous changes.

•AROOSTOCK

43rd Edition, April 28, 1966

Add Loring AF VOR freq 115.0 ident LIZ class L mag var 22°W 46°50'10"N, 67°51'24"W.

AUSTIN

61st Edition, April 28, 1966

Change Hood AAF twr freq from 118.6 to 126.2. Delete Allison Ranch arpt 30°34'N, 101°49'W. Delete Halbert Ranch arpt 30°35'N, 100°43'W. Delete RP Mayer Ranch arpt 30°35'N, 100°48'W. Delete Copeland Ranch arpt 30°43'N, 100°28'W. Delete Mayfield arpt 30°34'N, 100°48'W. Delete Mayfield Station B arpt 30°17'N, 100°14'W. Delete West Texas Boys Ranch arpt 31°20'N, 100°37'W. Delete Bruton arpt 30°54'N, 100°48'W.

•BEAUMONT

55th Edition, March 31, 1966

Delete Franklinton arpt 30°50'39"N, 90°09'30"W. Add obstn 750' MSL 31°29'12"N, 91°21'42"W. Add obstn 364' MSL 30°07'54"N, 92°48'02"W. Add obstn 462' MSL 30°07'56"N, 91°46'25"W. Delete McDonald arpt 30°59'00"N, 92°36'00"W. Add obstn 331' MSL 30°04'15"N, 90°37'06"W. Add obstn 525' MSL 30°50'41"N, 90°22'35"W. Delete Progress arpt 31°03'N, 90°19'W. Add obstn 336' MSL 30°08'27"N, 93°03'50"W. Add obstn 640' MSL 31°55'50"N, 91°00'34"W. Add obstn 1049' MSL 30°11'26"N, 93°53'08"W. Add UNICOM Jasper County arpt 30°53'N, 94°02'W. Add obstn 669' MSL 31°34'48"N, 94°38'03"W. Delete Hall arpt 31°40'40"N, 92°54'20"W. Delete Dugas arpt 30°03'25"N, 91°48'30"W. Delete Gueydan arpt 30°01'30"N, 92°31'W. Delete Hackberry arpt 29°59'55"N, 93°21'10"W. Delete Petit Jean arpt 30°05'45"N, 92°47'45"W. Delete Watkins arpt 30°19'45"N, 92°55'45"W. Add obstn 1023' MSL 31°56'32"N, 94°41'07"W.

BELLINGHAM

53rd Edition, May 26, 1966

Add UNICOM Campbell River arpt 49°57'N, 125°16'W.

•BIRMINGHAM

61st Edition, April 28, 1966

Add UNICOM Stone Mountain arpt 33°48'40"N, 84°07'10"W. Change De Kalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 798' MSL 33°47'48"N, 87°20'32"W. Change Anniston RBn freq 329 to 278. Add obstn 702' MSL 31°54'55"N, 87°44'W. Delete Prattville RBn 32°28'N, 86°25'W. Delete McDonough VORTAC 33°24'31"N, 84°10'32"W. Delete rotating bcn Martin Field 32°09'N, 87°27'W. Delete Talladega VOR 33°17'08"N, 86°05'10"W. Major awy changes E half of chart see latest C & GS Enroute Low Altitude chart. Add obstn 911' MSL UC 32°45'53"N, 89°07'31"W. Add obstn 2174' MSL 33°50'18"N, 85°43'51"W. Add obstn 1070' MSL UC 33°04'31"N, 85°01'22"W. Add obstn 784' MSL UC 33°01'53"N, 89°28'52"W.

BOISE

42nd Edition, May 26, 1966

Delete FM Eagle code ——————— 43°43'30''N, 116°26'-00''W.

•BOSTON

57th Edition, March 3, 1966

Add obstn 585' MSL 41°49'40''N, 71°22'09''W. Delete Lewiston non-federal RBn 44°02'56''N, 70°17'16''W. Add New Gloucester non-federal RBn freq 266 ident GLU Class MHW 43°59'13''N, 70°19'29''W. Extend efctv time of designation of R-4902 through Oct 31, 1966. Ctl twr decomsnd Devens AAF. Delete Peabody FM 42°30'55''N, 70°56'27''W. Add Pembroke RBn non-federal freq 251 ident PBR class MHW 43°10'57''N, 71°-28'18''W. GCA decomsnd Hanscom ctl twr. Add UNICOM Hawthorne–Feather arpt 43°03'44''N, 71°54'20''W. Add UNICOM Fall River Muni arpt 41°45'15''N, 71°06'-45''W. Change ctl twr freq 257.8 to 263.0 Worchester Muni.

•BURLINGTON

46th Edition, April 28, 1966

Add obstn 430' MSL 45°04'42''N, 74°46'18''W. Delete Trenton RBn 44°03'13''N, 77°37'37''W. Delete Deseronto arpt 44°11'N, 77°07'W. Add Camp Petawawa RBn freq 284 ident WP class MHW 45°56'19''N, 77°18'45''W.

BUTTE

46th Edition, July 21, 1966

No hazardous changes.

CASPER

51st Edition, March 31, 1966

No hazardous changes.

•CHARLOTTE SECTIONAL CHART

58th Edition, April 28, 1966

Delete Lumberton RBn 34°36'N, 79°04'W. Add 700' floor ctld airspace bounded on S by Asheville 1200' TA on NE by V185E on NW by V16S and on SW by V185. Add obstn 1411' MSL 36°04'12''N, 83°58'19''W. Add obstn 1209' MSL 34°59'54''N, 81°14'15''W. Add obstn 526'MSL 34°14'57''N, 80°36'26''W. Add obstn 570' MSL 35°41'25''N, 78°19'18''W. Delete Royston VOR 34°27'-26''N, 83°05'27''W. Delete ctl twr freq 317 Spartanburg Downtown Mem. Delete ctl twr freq 209 Greenville-Spartanburg 34°54'N, 82°13'W. Change ctl twr freq 384.8 to 287.0 Donaldson Center. Major awy changes on this chart see latest C&GS Enroute Low Altitude charts. Change Knoxville RBn freq 257 to 281.

•CHATTANOOGA

58th Edition, August 18, 1966

No hazardous changes.

•CHEYENNE

54th Edition, June 23, 1966

Add obstn 4536' MSL 41°11'09''N, 103°03'05''W. Add obstn 4567' MSL 41°21'57"N, 102°58'24"W. Delete aband arpt symbol & type 40°36'N, 105°09'W.

•CHICAGO

62nd Edition, May 26, 1966

Delete Carm arpt 43°45'N, 88°01'W. Add Sturgis RBn freq 380 ident IRS class MHW 41°49'N, 85°26'W. Delete ctl twr freq 342 at DuPage Co. Delete Berg arpt 40°33'N, 84°14'W. Add unicom Allen Co arpt 40°42'N, 84°02'W. Delete Goshen RBn 41°31'N, 85°52'W. Add obstn 1050' MSL 41°08'17''N, 87°53'46''W. Add obstn 1019' MSL 41°19'56''N, 88°49'30''W. Delete Prosperi arpt 41°33'N, 87°47'W.

•CINCINNATI

62nd Edition, August 18, 1966

No hazardous changes.

•CLEVELAND

62nd Edition, May 26, 1966

Delete Norwalk arpt 41°16'00"N, 82°36'20''W. Delete Circle V arpt 41°05'N, 83°15'W. Delete Bedford (Cessna) arpt 40°05'30''N, 78°31'15''W. Add obstn 1395' MSL 40°50'17''N, 81°18'13''W. Add obstn 1814' MSL 40°39'45''N, 79°20'36''W. Delete UNICOM Butler-Roe arpt 40°51'N, 79°58'W. Delete Burke Lakefront SPB 41°30'45''N, 81°41'30''W. Delete UNICOM Ohio State University arpt 40°04'40''N, 83°04'30''W. Change Strongsville VOR freq 108.4 to 112.0. Add UNICOM Rhea arpt 41°14'22''N, 79°25'54''W.

CORPUS CHRISTI

57th Edition, July 21, 1966

No hazardous changes.

•DALLAS

63rd Edition, July 21, 1966

Delete Starnes arpt 33°53'N, 101°59'W.

DEL RIO

41st Edition, November 11, 1965

Add UNICOM PRESIDIO arpt 29°34'N, 104°22'W. Add obstn 2216' MSL 29°43'27''N, 10048'46''W.

DENVER

56th Edition, June 23, 1966

No hazardous changes.

•DES MOINES

55th Edition, April 28, 1966

Delete Vander Wilt arpt 41°23'N, 92°48'W. Add obstn 1080' MSL 41°41'02''N, 91°30'16''W. Add obstn 1149'

MSL 41°32'30''N, 91°16'36''W. Add UNICOM Maquoketa-Swift arpt 42°04'N, 90°45''W. Relocate Omaha RBn 41°03'18''N, 95°48'15''W to 41°22'N, 95°57'21''W change ident OMA to OM class MHW to HASB/LOM.

DETROIT

61st Edition, July 21, 1966

No hazardous changes.

DOUGLAS

43rd Edition, October 14, 1965

Add Fort Huachuca Ariz ctl zone 5 mi radius Libby AAF arpt 31°35'N, 110°20'W with SE extsn. Delete Vail FM 32°04'N, 110°40'W. Change Douglas VOR freq from 110.0 to 108.8 VOR relocated from 31°30'47.1''N, 109° 40'15.7''W to 31°28'21.3''N, 109°36' 05.0'' W.

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DUBUQUE

51st Edition, March 31, 1966

Add control zone 5 mi radius Fairmont arpt with a NW and SE extsns ctl zone efctv by NOTAM's. Add UNICOM Denison arpt 41°59'N, 95°23'W. Change Ames RBn freq 257 to 275 41°59'40''N, 93°37'34''W. Add obstn 1484' MSL 43°37'45''N, 94°30'30''W. Add Charles City RBn freq 375 ident CCY class MHW 43°04'18''N, 92°36'35''W. Add obstn 1748' MSL 42°47'30''N, 96°06'05''W. Add UNICOM Maquoketa-Swift arpt 42°-04'N, 90°45''W.

•DULUTH

40th Edition, July 21, 1966

In northern border delete Graham LFR legs box & type. Delete Robbel arpt 45°56'N, 90°28'W.

ELKO

46th Edition, May 26, 1966

No hazardous changes.

•EL PASO

56th Edition, August 18, 1966

No hazardous changes.

FARGO

45th Edition, August 18, 1966

No hazardous changes.

GLACIER PARK

38th Edition, Octber 14, 1965

Delete Cameron Ranch arpt 49°55'N, 112°22'W. Add V536 airway from Great Falls to Kalispell (Kalispell Intn 48°12'50''N, 114°10'29''W).

GRAND CANYON

42nd Edition, May 26, 1966

No hazardous changes.

GRAND JUNCTION

44th Edition, May 26, 1966

Delete awy bcn site #65 code • — • 39°03'55''N, 108°-44' 50''W.

GREEN BAY

53rd Edition, May 26, 1966

Delete Valley arpt 44°08'N, 88°30'W. Add Iron Mountain VOR freq 111.2 ident IMT class L/BVOR mag var 1°E 45°48'59''N, 88°06'43''W. Add ctl zone 5 mi radius Ford arpt 45°49'N, 88°07'W with S, SE & W extsns ctl efctv by NOTAM's. Add V9 Green Bay to Iron Mountain to Houghton (348°M from Iron Mountain). Add V430 awy Escanaba to Iron Mountain to Ironwood (297°M from Iron Mountain). Add V9E awy Iron Mountain to Marquette (027°M from Iron Mountain). Add 700' Transition area 6 mi radius Otsego Co arpt 45°01'N, 84°42'W a 1200' transition area 8 mi N & 5 mi S of 087°T bearing from Otsego Co arpt to a point 12 mi E & the airspace 5 mi each side of 304°T bearing from the arpt to V193.

HAWAIIAN ISLAND

18th Edition, December 9, 1965

Change Maui ctl twr freqs from 118.1 257.8 to 118.7 279.6. Delete ctl twr freq 278 at Hilo. Add obstn 6827' MSL 20°47'N, 156°14'W. Delete ctl twr freq 278 Gen Lyman.

•HUNTINGTON

56th Edition, August 18, 1966

No hazardous changes.

JACKSONVILLE

54th Edition, April 28, 1966

Delete 77 SUNSWEET arpt 31°35'N, 83°34'W. Delete Monticello arpt 30°32'N, 83°53'W. Add obstn 462' MSL 30°41'00''N, 83°19'02''W. Add obstn 1549' MSL 31°08'-05''N, 84°06'16''W. Add UNICOM St. Marys arpt 30°-45'N, 81°33'W.

•KANSAS CITY

58th Edition, August 18, 1966

No hazardous changes.

KLAMATH FALLS

54th Edition, March 31, 1966

Add UNICOM Florence arpt 43°59'N, 124°06'W.

•KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06′N, 119°46′W. Add Castlegar FM code — — — 49°19′N, 117°38′W. Increase terrain elev at lat 48°25′N & long 114°07′W to 4000′-6000′ MSL.

LA GRANDE

45th Edition, July 21, 1966

No hazardous changes.

LAKE HURON

41st Edition, May 26, 1966

Add obstn 1110′ MSL 44°54′46″N, 79°23′16″W.

•LAKE SUPERIOR

44th Edition, August 18, 1966

No hazardous changes.

•LAKE OF THE WOODS

39th Edition, August 18, 1966

No hazardous changes.

LEWISTON

45th Edition, April 28, 1966

Change Pennfield Ridge RBn freq 379 to 388. Delete Lewiston non-federal RBn 44°02′56″N, 70°17′16″W. Add New Gloucester non-federal RBn freq 266 ident GLC class MHW 43°59′13″N, 70°19′29″W. Add obstn 660′ MSL 44°35′25″N, 69°38′20″W. Add obstn 734′ MSL 43°55′53″N, 66°06′07″W. Add UNICOM Island Pond State arpt 44°47′25″N, 71°49′45″W.

•LINCOLN

54th Edition, March 31, 1966

Correct elev Sieber arpt from 572 to 1572. Correct elev ELY arpt from 720 to 1720. Change obstn elev 2529′ MSL to 3030′ MSL 40°40′08″N, 97°10′47″W. Relocate Omaha RBn 41°03′18″N, 95°48′15″W to 41°22′N, 95°57′21″W change ident OMA to OM class MHW to HASB/LOM. Change Raymond VORTAC name to Lincoln ident RAY to LNK.

LITTLE ROCK

50th Edition, July 21, 1966

No hazardous changes.

•LOS ANGELES

62nd Edition, August 18, 1966

No hazardous changes.

•MIAMI

53rd Edition, March 31, 1966

Add obstn 650′ MSL 28°00′45″N, 81°45′45″W. Change Marathon RBn freq 360 to 260. Delete Keats arpt 27°34′38″N, 80°50′32″W. Delete Dressel arpt 27°15′58″N, 81°19′11″W. Add obstn 328′ MSL 26°22′45″N, 81°22′03″W. Add obstn 248′ MSL 26°56′27″N, 81°18′38″W. Add obstn 413′ MSL 25°26′07″N, 80°19′51″W. Delete Hobbs arpt 26°47′N, 82°02′W. Delete Bob Paul arpt 26°41′N, 81°27′W. Add 700′ Transition Area 5 mi radius of Lakeland arpt 27°59′N, 82°01′W and 5 mi NW 8 mi SE of Lakeland VOR bearing 233°T to 12 mi SW of VOR. Add obstn 297′ MSL 25°44′58″N, 80°12′07″W. Twr comsnd Whitted arpt freqs 120.4 257.6 27°46′N, 82°38′W. Add obstn 1099′ MSL 27°50′52″N, 82°15′48″W. Delete Evergladees arpt 25°51′N, 81°23′W. Delete Cape Coral arpt 26°37′N, 81°57′W.

MILES CITY

45th Edition, April 28, 1966

No hazardous changes.

•MILWAUKEE

60th Edition, May 26, 1966

Delete ctl twr freq 342 DuPage Co. Delete ctl twr freq 396 Kellog. Delete Carm arpt 43°46′N, 88°01′W. Twr comsnd Rock County arpt freqs 121.2, 122.7R. Add obstn 851′ MSL 43°41′49″N, 83°58′48″W. Add UNICOM Cottonwood arpt 42°18′N, 89°08′W. Delete Air City arpt 42°41′N, 87°53′W. Add Sheboygan RBn freq 254 ident SBM class MHW 43°45′44″N, 87°51′03″W. Add obstn 891′ MSL 42°06′15″N, 86°28′19″W. Add obstn 1340′ MSL 43°01′31″N, 89°23′46″W. Add obstn 1126′ MSL 42°27′34″N, 89°01′44′W. Relocate RBn 42°54′32.6″N, 87°53′38.5″W to 42°54′32.6″N, 88°02′27.4″W change name Milwaukee to Mitchell ident MKE to GM class SABH to H/SAB/LOM.

MINOT

43rd Edition, March 3, 1966

Add obstn 1830′ MSL 48°43′12″N 101°12′30″W. Add obstn 1310′ MSL 48°25′30″N, 97°26′45″W.

MOBILE

59th Edition, July 21, 1966

Delete DF Cairns AAF ctl twr 31°16′N, 85°43′W.

•MT. SHASTA

55th Edition, May 26,1966

Add UNICOM Garberville arpt 40°05′N, 123°49′W. Add UNICOM Fall River Mills arpt 41°01′N, 122°26′W.

MT. WHITNEY

57th Edition, June 23, 1966

Add obstn 2355′ MSL 36°12′52″N, 115°09′18″W. Add UNICOM Gallaher arpt 36°16′N, 119°18′W.

•NASHVILLE

57th Edition, July 21, 1966

Change ctl twr freq 229.6 to 241.0 Godman AAF. Add UNICOM Gallatin Muni 36°23'N, 86°25'W.

•NEW ORLEANS

59th Edition, March 31, 1966

Add obstn 364' MSL 30°07'54"N, 92°48'02"W. Add obstn 462 MSL 30°07'56"N, 91°46'25"W. Add obstn 370' MSL 29°15'20"N, 89°21'24"W. Add obstn 501' MSL 29°16'26"N, 90°38'48"W. Change freq 109.4 to 113.5 Grand Isle VOR 29°10'N, 90°06'W. Add obstn 336' MSL 30°08'27"N, 93°03'50"W. Add obstn 1049' MSL 30°11'26"N, 93°53'08"W. Delete Harvey SPB 29°53'08"N, 90°04'30"W. Delete Petit Jean arpt 30°05'45"N, 92°47'45"W. Delete Hackberry arpt 29°59'55" N, 93°21'10"W. Delete Gueydan arpt 30°01'30"N, 92°31'W. Delete Dugas arpt 30°03'25"N, 91°48'30"W. Delete Watkins arpt 30°19'45"N, 92°55'45"W.

NEW YORK

64th Edition, March 31, 1966

Add obstn 1062' MSL 40°37'13"N, 75°17'37"W. Add UNICOM Alexandria Field arpt 40°35'15"N, 75°01' 00"W. Delete Old Star arpt 40°11'00"N, 74°52'45"W. Change Lancaster Control Tower freq 257.8 to 263.0. Change Westchester Co. ctl twr freq 350.2 to 241.0. Twr comsnd NAS Lakehurst East Field freq 142.74 and 340.2 40°01'30"N, 74°19'15"W. Change Olmstead AFB twr hours of opern to 0700–2300. Delete ctl twr freq 223 Allentown Bethlehem Easton. Add obstn 378' MSL 40°56'10"N, 72°39'12"W. Delete Radle arpt 40°24'48"N, 77°16'15"W. Delete Caka arpt 40°33'N, 74°54'W. Delete Pond Hollow Farm arpt 40°48'55"N, 75°08'00"W. Add ctl twr freq 241.0 NAS Lakehurst-Eastfield. Delete Mountain Bay arpt 41°23'N, 75°14'W. Add UNICOM Trumbull arpt 41°19'45"N, 72°02'45"W.

NORFOLK

58th Edition, March 3, 1966

Delete New Bern RBn 35°04'N, 77°02'W. Add obstn 365' MSL 35°41'50"N, 77°38'24"W. Add UNICOM Suffolk Mun arpt 36°40'N, 76°36'W. Delete ctl twr freq 317 Patrick Henry arpt 37°08'N, 76°30'W efctv 6–30–66. Add ctl twr freq 120.5 CGAS Elizabeth City.

•OKLAHOMA CITY

59th Edition, April 28, 1966

Add obstn 2770' MSL 35°25'25"N, 99°50'30"W. Delete aband apt symbol & type 34°14'N, 98°44'W. Add obstn 1357' MSL 34°23'28"N, 97°59'36"W. Delete Cowan arpt 34°29'N, 101°49'W. Delete Todd arpt 34°38'N, 101°57'W. Delete Savage arpt 34°20'N, 101°31'W. Delete Tri-State arpt 35°08'N, 101°48'W. Delete ctl twr freq 119.2 Clinton Sherman AFB 35°20'N, 99°12'W. Add obstn 1881' MSL 35°23'14"N, 97°29'56"W. Add UNICOM Wilbarger arpt 34°14'N, 99°17'W. Add UNICOM Holdenville arpt 35°05'N, 96°25''W

•ORLANDO

55th Edition, April 28, 1966

Add obstn 375' MSL 28°36'50"N, 82°12'56"W. Add obstn 435' MSL 28°48'40"N, 81°52'35"W. Delete Bruce arpt 28°43'N, 81°04'13"W. Add obstn 417' MSL 28°00'49"N, 80°36'08"W. Delete Spuce Creek arpt 29°04'40"N, 81°02'41"W. Add UNICOM Vandenberg arpt 28°00'50"N, 82°20'40"W.

PHOENIX

55th Edition, July 21, 1966

No hazardous changes.

POCATELLO

51st Edition, March 31, 1966

Add Teton FM code • — • 43°33'05"N, 110°45'46"W.

•PORTLAND

55th Edition, July 21, 1966

Add UNICOM Hood River County arpt 45°40'N, 121°32'W. Add ctl zone 5 mi radius Hillsboro arpt 45°32'15" N, 122°56'30"W with extsn 8 mi S of arpt. See NOTAMs/AIM for CZ efctv hrs.

•PRESCOTT

45th Edition, March 31, 1966

Delete Crownpoint VOR 35°52'54"N, 108°15'30"W. Delete Gallup RBn 35°30'25"N, 108°48'06"W. Add Grand Canyon 1200' Transition area bounded by a line beginning at 36°00'N, 112°27'W to 36°05'N, 112°00'W to 35°42'N, 112°00'W to 35°42'N, 112°07'W to 35°38'N, 112°27'W to point of beginning. Delete UNICOM Clarke arpt 35°30'N, 108°47'W. Add obstn 7420' MSL 35°14'40"N, 108°51'04"W. Add ctl zone 5 mi radius Pulliam arpt 35°08'16"N, 111°40'17"W with extsns 11.5 mi E & 7.5 mi S of VOR.

RAPID CITY

44th Edition, June 23, 1966

Delete awy bcn site #2B 44°33'06"N, 106°42'28"W.

RENO

46th Edition, June 23,1966

Ctl twr decomsnd Stead AFB fld clsd.

ROSWELL

55th Edition, June 23, 1966

Add UNICOM Midland Airpark 32°02'N, 102°06'W.

•SACRAMENTO

56th Edition, June 23, 1966

Ctl twr decomsnd Stead AFB fld clsd. Add UNICOM Garberville arpt 40°05'N, 123°49'W. Add Travis RBn freq 400 ident SU class MHW 38°20'10"N, 121°49'18"W.

SALINA

54th Edition, March 31, 1966

Delete Downs arpt 39°30'N, 98°33'W. Add obstn 1775' MSL 38°38'16''N, 96°57'57''W. Add obstn 2338' MSL 39°45'52''N, 99°18'15''W. Delete Kratzer arpt 38°34'N, 98°13'W. Add obstn 1915' MSL 38°17'25''N, 97°58'18''W.

SALT LAKE CITY

53rd Edition, May 26, 1966

No hazardous changes.

•SAN ANTONIO

58th Edition, June 23, 1966

Add obstn 636' MSL 29°50'33''N, 95°28'23''W. Add UNICOM Hondo muni arpt 29°21'N, 99°10'W. Delete Arrowhead Ranch arpt 28°15'36''N, 98°33'54''W. Delete Dial Ranch arpt 28°39'40''N, 97°35'57''W. Delete Mangum arpt 28°58'30''N, 95°54'55''W. Add obstn 390' MSL 29°16'46''N, 95°44'26''W.

•SAN DIEGO

60th Edition, August 18, 1966

No hazardous changes.

SAN FRANCISCO

59th Edition, June 23, 1966

Delete Blackwells arpt 35°37'N, 119°53'W.

•SAVANNAH

59th Edition, March 3, 1966

Change Shaw RBn ident and code SW ● ● ● ● — — to SSC ● ● ● ● ● ● — ● — ● 33°55'N, 80°31'W. Restore 700' floors to V154 and V185 between V70 and V157. Delete Dorchester Co arpt 33°11'N, 80°33'W. Add UNICOM Covington arpt 33°38'N, 83°51'W. Delete Church Branch arpt 33°31'N, 80°11'W. Add obstn 1900' MSL UC 33°15'33''N, 82°17'09''W. Add obstn 1549' MSL UC 32°28'11''N, 83°15'17''W. Major awy changes quarter of chart see latest C & GS Enroute Low Altitude charts. Delete McCormick arpt 33°55'N, 82°15'W. Add ctl zone 5 mi radius Myrtle Beach arpt 33°48'40''N, 78°-43'30''W with extsns 8 mi NE & SW of VORTAC. See NOTAMs/AIM for CZ efctv hrs.

SEATTLE

59th Edition, June 23, 1966

Add ctl zone 5 mi radius Kitsap Co arpt 47°29'35''N, 122°45'35''W with extsn 8 mi SW of RBn. See NOTAMs/AIM for CZ efctv hrs.

•SHREVEPORT

51st Edition, June 23, 1966

Add obstn 856' MSL 33°09'35''N, 94°56'12''W. Change ctl twr freq 119.7 to 118.9 at Gregg County. Delete Arneson arpt 32°26'N, 91°19'W. Add ctl zone 5 mi radius Greenville Muni arpt 33°29'05''N, 90°59'06''W with extsn 8.5 mi N of VOR efctv 0700 to 2000 hrs daily.

SIOUX CITY

43rd Edition, May 26, 1966

Add UNICOM Lamars arpt 42°47'N, 96°12'W.

•SPOKANE

53rd Edition, June 23, 1966

Ctl twr decomsnd Larson AFB 47°12'34''N, 119°18'51''W. Delete Larson RBn 47°06'57''N, 119°16'24''W. Delete Larson FM code — — 47°06'57''N, 119°16'24''W. Delete Larson (AF) VOR 47°05'41''N, 119°15'41''W. Add ctl zone 5 mi radius Pullman-Moscow Regional arpt 46°40'25''N, 117°13'30''W with extsn 8 mi SW of VOR. See NOTAMs/AIM for CZ efctv hrs.

TRINIDAD

43rd Edition, March 3, 1966

Add obstn 4474' MSL 37°33'24''N, 102°26'19''W. Delete Rita Blanca arpt 36°02'N, 102°29'W.

•TULSA

57th Edition, April 28, 1966

Add obstn 1400' MSL 37°58'30''N, 92°53'36''W. Delete rotating bcn Bismarck arpt 37°45'N, 90°37'W. Add obstn 1835' MSL 36°10'02''N, 94°04'34''W. Delete Berryville arpt 36°22'N, 93°35'W. Add obstn 2400' MSL 36°-09'N, 93°14'53''W. Delete Red Bud arpt 36°16'N, 92° 29'W. Delete Reeves arpt 36°04'N, 93°42'W. Add obstn 1472' MSL 37°49'43''N, 94°41'10''W. Add UNICOM Reynolds arpt 36°06'N, 90°07'W.

•TWIN CITIES

52nd Edition, April 28, 1966

Add obstn 1835' MSL 45°55'39''N, 90°27'42''W. Delete ctl twr freq 257 at Crystal. Change Minneapolis RBn ident MSP to MS class SABH to H/SAB/LOM 44°51'-28.1''N, 93°08'54.5''W to 44°49'33.1N, 93°05'27.6''W. Add Marshfield RBn freq 391 ident MFI class MHW 44°38'-28''N, 90°11'14''W. Add New Ulm RBn freq 272 ident ULM class MHW 44°19'25''N, 94°30'02''W. Delete Robbel arpt 45°56'N, 90°28'W.

WASHINGTON

63rd Edition, March 31, 1966

Change Andrews AFB/NAF ctl twr freq 126.2 to 118.4. Change Lancaster arpt ctl twr freq 257.8 to 263.0. Delete Du Pont arpt 38°38'N, 75°38'W. Delete ctl twr freq 121.3 at MCAS Quantico. Twr comsnd NAS Lakehurst-East Field freq 142.74 and 340.2 40°-01'30''N, 74°19'15''W. Change ctl twr freq 119.7 to 120.1 Dulles Intna. Add ctl twr freq 241.0 NAS Lakehurst-EastField. Delete Rutherford arpt 39°20'N, 76°45'W. Add obstn 365' MSL 39°22'28''N, 74°33'56''W. Add obstn 331' MSL 38°57'21''N, 76°21'08''W. Add obstn 498' MSL 38°12'44''N, 77°21'28''W. Delete Quantico MCAS LFR 38°26''N, 77°19'W. Delete GCA Philadelphia Intl arpt 39°53'N, 75°14'W.

WICHITA

56th Edition, June 23, 1966

Delete Vance RBn 36°16'N, 97°55'W. Add UNICOM Sunray arpt 36°02'N, 101°50'W. Add UNICOM Ulysess arpt 37°36'N, 101°22'W. Add UNICOM Piper arpt 37°-45'N, 97°13'W.

WILLISTON

40th Edition, July 21, 1966

No hazardous changes.

WINSTON-SALEM

57th Edition, March 31, 1966

Delete Griffins arpt 36°11'N, 79°53'W. Change Evington RBn freq 393 to 385. Change obstn elev 2049' MSL to 2420' MSL 36°32'N, 82°35'W. Add UNICOM Roanoke Mun 37°19'26"N, 79°58'33"W. Add obstn 1411' MSL 36°04'12"N, 83°58'19"W.

YELLOWSTONE PARK

43rd Edition, March 3, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

GADSDEN VORTAC: DME unusable beyond 20 nmi 140–195°.

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000′ MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000′ MSL 190–290°: below 7000′ MSL 320–345° and 005–035°; below 8000′ MSL 035–060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500′ MSL; 175–240°, 090–145° below 10,500′ MSL 040–090°. Below 14,000′ MSL 360–040°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000′ MSL beyond 40 nmi from 195–230°.

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000′ MSL 152–170° and 200–210° and beyond 6 nmi below 7000′ MSL 078–125°.

PRESCOTT VORTAC: VORTAC unusable beyond 40 nmi below 11,000′ MSL 145–155° and 175–200°: below 17,000′ MSL 200–225°; below 12,000′ MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 145–190°; below 14,000′ 190–255°; below 10,500′ MSL 350–145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL from 320–045°; below 16,500′ MSL 045–065°; below 15,000′ MSL 065–080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL 280–300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346–311° beyond 20 nmi below 3,500′ MSL; 312–345° beyond 15 nmi below 5,500′ MSL and beyond 30 nmi below 7,500′ MSL. MSL.

CALIFORNIA

AVENAL VORTAC: DME unusable beyond 40 nmi below 3000′ MSL 320–065° below 4000′ MSL, 065–095° below 4500′ MSL, 095–125° below 8500′ MSL, 125–170° below 7500′ MSL, 170–198° below 7000′ MSL, 195–230° below 8000′ MSL, 230–305° below 8000′ MSL.

BAKERSFIELD VORTAC: VOR portion 121° rad V165 to Arvin Int unusable below 4000′.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000′ MSL 324–018° below 9000′ MSL 189–217°, below 10,000′ MSL 175–189°, below 15,000′ MSL 277–324°.

BIG SUR VORTAC: DME unusable beyond 40 nmi below 8000′ MSL 085–120° below 7000′ MSL 120–130° below 6000′ MSL 290–320° and below 9000′ MSL 320-085°.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000′ and below 280–290° and 14,000′ and below 290–350°

FORTUNA VORTAC: DME unusable below 9500′ MSL 050–070° and below 5000′ MSL 150–200° beyond 40 nmi.

FRESNO VORTAC: DME unusable below 4000′ MSL 200–250°.

GLENDALE RBN: F facil unusable beyond 2 mi from 320–065° and from 130–235°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 265–290° and 15,000′ MSL 290–310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 265–310° below 10,500′ MSL 350–040°; below 5500′ MSL 125–155°; below 10,500′ MSL 155–170° below 14,500′ MSL 170–219°; below 31,000′ MSL 219–250°; below 25,000′ MSL 250–265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL from 135–180°, below 7000′ MSL from 268-290°. V-201 011° rad beyond 20 nmi below 9000′ MSL. DME unusable beyond 40 nmi below 3500′ MSL from 180–210°.

NAPA VORTAC: DME unusable beyond 40 nmi below 7500′ from 280–045°.

NEEDLES VORTAC: VORTAC unusable below 11,500′ MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: DME unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060-320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355-005°, below 9000′ MSL 005-060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177-200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158-177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259-277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200-259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness. unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SAN LUIS OBISPO VORTAC: VOR unusable below 7000′ MSL beyond 7 nmi from 300–090°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unustble beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320-020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190-230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265-280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340-010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115-125°, beyond 15 mi from 125–135°, beyond 15 mi from 225-235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295-305°, beyond 25 mi from 305-315° acct of unreliable distance.

FLORIDA

●**CROSS CITY VOR:** VOR unusable beyond 16 nmi below 2500′ MSL on the 149° rad.

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

TALLAHASSEE VOR: VOR unusable above 17,500′ MSL on 287 rad and beyond 50 mi on 090 rad.

GEORGIA

AUGUSTA VORTAC: VOR unusable 357–002°. Use Greenwood VOR 180° radial for V–185 between Augusta VORTAC and Greenwood VOR, MEA 2,300′ MSL.

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360 050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290-310°.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060-085° and below 13,000′ MSL from 085-120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115-150°.

ILLINOIS

●CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290-305° and 340–360°. DME unusable 004–014°, 138–156°, 170–218°, 250–255°, 285–315°, and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

PEOTONE VORTAC: VOR unusable 341-010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045-135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115-210° below 2500′ MSL.

IOWA

WATERLOO VORTAC: DME unusable beyond 15 nmi 335–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

●NEW ORLEANS VORTAC: DME unusable within 40 nmi below 5000′ MSL 010–044° and 195–215°.

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 288° rad beyond 34 mi above 18,000′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable in the following areas: 010–045° beyond 65 mi 45,000′ MSL, 000–026° beyond 10 mi below 18,000′ MSL, 026–045° beyond 22 mi below 3500′ MSL, 026–045° beyond 26 mi below 4500′ MSL, 026–045° beyond 28 mi below 5500′ MSL, 026–045° beyond 32 mi below 7500′ MSL, 045–360° beyond 26 mi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL

MICHIGAN

ALPENA VORTAC: VOR unusable 360° clockwise to 065°. DME unusable 250° clockwise to 280° below 3500′ MSL beyond 30 nmi.

ESCANABA VOR: VOR unusable from 140–170°, 190–235°, 315–335° beyond 10 NM airway V7 Escanaba 216° rad change over point 10 NM SW Escanaba VOR.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–095° beyond 15 nmi below 6000′ MSL. 090–103° beyond 30 nmi below 4000′ 104–190° beyond 25 nmi below 3000′; 190–200° below 3000′; 200–330° beyond 25 nmi below 3000′; 331-036° beyond 25 nmi below 3500′.

MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335–350° beyond 30 mi below 2,900′ MSL. DME unusable 200–290° beyond 30 nmi below 4000′ MSL, from 290350° beyond 30 nmi below 4500′ MSL, from 350–050° beyond 30 nmi below 4000′ MSL.

SAWYER VOR: VOR unusable 090–110° and 270–310°.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′. TACAN unusable below 14,500′ 265–275° within 40 nmi.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000′ MSL within 30 mi; 242–255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185-265° beyond 20 mi below 3,000′ MSL; 265–185° beyond 22 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3,500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252 260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000′ MSL.

BUTTE VORTAC: VORTAC unusable following areas: 005–120° beyond 20 nmi below 10,000′ MSL; and 120–325° beyond 20 nmi below 11,000 MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250–030° beyond 25 mi below 10,500′ MSL, 030–250° beyond 25 mi below 12,000′ MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235–245° beyond 10 mi below 6,800′ MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360–065° beyond 20 mi below 10,000′ MSL; 065–090° beyond 25 mi below 11,000′ MSL; 110–120° beyond 20 mi below 16,000′ MSL; 120–240° beyond 20 mi below 10,000′ MSL; 240–320° beyond 25 mi below 10,000′ MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000′ MSL.

MALMSTROM VOR: VOR unusable 250–280° beyond 15 nmi below 7000′ MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345–060° beyond 15 mi; 060–095° beyond 31 mi below 12,000′ MSL; 095–165° beyond 20 mi below 10,000′ MSL; 165–270° beyond 20 mi below 12,000′ MSL; 285–315° beyond 20 mi below 12,000′ MSL; 315–345° beyond 20 mi; VOR below 11,000′ MSL DME below 14,000′ MSL. Possible momentary VOR flag activity on V–2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360–040° beyond 30 mi below 14,500′ MSL; 040–055° beyond 30 mi below 12,000′ MSL; 120–160° beyond 30 mi below 14,500′ MSL; 215–230° beyond 20 mi below 14,500′ MSL; 230–285° beyond 35 mi below 14,500′ MSL; 285–360° beyond 30 mi below 13,500′ MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36–55 mi below 3,600′ MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285°.

BEATTY VORTAC: VOR restricted below 8000′ beyond 27 nmi, 060–360°; below 10,000′ beyond 10 nmi, 360–060°.

COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced comerage. DME unusable beyond 15 nmi below 14,000′ MSL 065–075°; below 17,000′ MSL 150–235°; below 16,000′ MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 nmi 260–290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240–320°; below 14,000′ MSL 170–220° and 320–340°; below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010–120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,500′ MSL from 220° to 255°, below 14,500′ MSL from 255° to 270°, below 16,000′ MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000′ MSL from 055 to 100°; 14,000′ MSL from 100 to 110°; 17,000′ MSL from 110 to 135°; 16,000′ MSL from 285 to 340°.

RENO RBN: H facility unusable 170–270° beyond 20 nmi, 270°–300° beyond 30 nmi and 300–010° beyond 23 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000′. DME unusable below 14,500′ beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500′ MSL beyond 40 nmi from 020–075° and 220–235°.

SPARKS RBN: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH VORTAC: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000′ MSL 005–030°; below 22,500, 185–210°; below 15,000, 335–350°; and below 12,000′, 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000′.

LEBANON VOR : VOR unusable 110–115° beyond 35 mi below 6,900′ MSL.

NEW JERSEY

ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1500′ MSL.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000′ MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000′ MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000′ MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500′ MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000′ MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000′ MSL; 001–025° beyond 20 nmi below 13,300′ MSL; 150–175° beyond 30 nmi below 10,500′ MSL; 176–210° beyond 20 nmi below 10,500′ MSL; 240–265° beyond 35 nmi below 10,700′ MSL; unusable 001–010°.

SANTA FE VORTAC: VOR unusable 015–030° beyond 30 mi at MEA.

NEW YORK

ALBANY VORTAC: VOR unusable 115–135° beyond 10 mi.

BINGHAMPTON RBN: Erratic ADF action 4–13 mi SSE of facility at 3,500′ MSL.

CANARSIE VOR: VOR unusable 060–095° beyond 15 mi below 4,000′ MSL.

DEER PARK VORTAC: VOR unusable following areas: 070–180° beyond 35 mi below 1,700′ MSL; 180–240° beyond 30 mi below 1,700′ MSL; 240–350° beyond 25

mi below 2,200′ MSL; and 350–040° beyond 30 mi below 2,200′ MSL.

DUNKIRK VOR: VOR unusable 120–180° beyond 22 mi below 4,000′ MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500′ MSL in following areas: 115–140° beyond 35 mi; 140–160° beyond 30 mi; 160–180° beyond 35 mi; 190–210° beyond 30 mi; and 210–215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305–315° beyond 35 mi below 7,000′; 315–350° beyond 30 mi below 8,000′.

HAMPTON VORTAC: DME unusable following areas: 280–325° beyond 35 mi below 1,700′ MSL; and 325–355° beyond 30 mi below 2,000′ MSL.

HUGUENOT VORTAC: VOR unusable 210–230° beyond 20 mi below 6,500′ MSL.

ITHACA VOR: VOR unusable 360–150° beyond 25 mi below 3,800′ MSL.

• KENNEDY VORTAC: VOR unusable below 1,500′ MSL in the following areas: 015–030° beyond 30 mi; 030–045° beyond 26 mi; 060–075° beyond 24 mi; 075–100° beyond 30 mi; 100–150° beyond 28 mi; 150–165° beyond 26 mi; 165–215° beyond 30 mi; 215–270° beyond 26 mi; and 350–015° beyond 35 mi. VOR unusable below 2,000′ MSL in following areas: 045-060° beyond 24 mi; 270–340° beyond 26 mi; and 340–350° beyond 30 mi. DME unusable within 9 nmi of VORTAC.

KINGSTON VOR: VOR unusable 045–050° beyond 35 mi below 4,300′ MSL and 070–140° beyond 30 mi below 3,400′ MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015–025° beyond 20 mi below 1,900′ MSL; 025–045° beyond 35 mi below 2,700′ MSL; 065–075° beyond 30 mi below 1,700′ MSL; 075–135° beyond 25 mi below 1,700′ MSL; 135–145° beyond 35 mi below 1,700′ MSL; 165–205° beyond 15 mi below 1,700′ MSL; 205–215° beyond 35 mi below 1,700′ MSL; 215–220° beyond 30 mi below 1,700′ MSL; 220–230° beyond 25 mi below 1,700′ MSL; 230–240° beyond 30 mi below 1,700′ MSL; 240–250° beyond 20 mi below 1,700′ MSL; 250–260° beyond 10 mi below 2,500′ MSL; 260–270° beyond 20 mi below 1,700′ MSL; 270–285° beyond 25 mi below 1,800′ MSL; 285–295° beyond 30 mi below 2,700′ MSL; 295–305° beyond 35 mi below 2,700′ MSL; 315–325° beyond 35 mi below 3,200′ MSL; 325–005° beyond 25 mi below 2,700′ MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260–270° beyond 35 mi below 6,000′ MSL.

ROCHESTER VOR: VOR unusable 045–065° beyond 12 mi.

SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360–015° below 5000′ MSL; 015–025° below 4500′ MSL; 025–100° below 5000′ MSL; 100–165° below 9000′ MSL; 165–180° below 7000′ MSL; 180-190° below 6500′ MSL; 190–200° below 7000′ MSL; 200-220° below 6000′ MSL; 220-240° below 5000′ MSL; 240–295° below 5500′ MSL; 295–305° below 7000′ MSL; 305–360° below 4500′ MSL.

NORTH CAROLINA

CHARLOTTE VORTAC: VOR unusable 360–055° except 005° rad unusable beyond 20 nmi.

ELIZABETH CITY VOR: VOR unusable 026–042° and 085–100° all altitudes; 276–312° below 5000′ MSL. Use Franklin VOR 130° radial for V-290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500′.

GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290–320° and 100–190°.

GREENSBORO VORTAC: VOR unusable 350–010° beyond 30 mi.

NORTH DAKOTA

DICKINSON VORTAC: VOR unusable 090–120° between FL 180 and FL 310 beyond 40 mi. GTF Center RADAR service available.

OHIO

AKRON VORTAC: VOR unusable 030–080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500′ MSL.

BELLAIRE VORTAC: VOR unusable 325–345° below 6000′ MSL.

BRIGGS VORTAC: VOR unusable 330–010°, 120–145° and 305–325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033–070°, 085–135°, 155–225°, 250–280° and 295–023°.

STRONGSVILLE VOR: VOR unusable 080–200° beyond 35 nmi.

OREGON

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000′ MSL 020–085°; 18,000′ MSL 085–120°; 12,000′ MSL 190–340°; 14,000′ MSL 340–020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 600′ MSL 150–170°; 6000′ MSL 320–350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000′.

REDMOND VORTAC: VORTAC unusable below 11,000′ MSL 190–210°; below 13,000′ MSL 210-240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020–060° beyond 26 mi below 3,500′ MSL.

ALTOONA VOR: VOR unusable in the following areas: 070–100° beyond 18 mi below 3,500′ MSL; 100–160° beyond 30 mi below 3,500′ MSL; 200–310° beyond 30 mi below 4,500′ MSL; 310–350° beyond 15 mi all altitudes; 350–010° beyond 30 mi below 4,000′ MSL.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VORTAC: VOR unusable 070–085° beyond 10 mi at MOCA.

CLARION VOR: VOR unusable 215–223°.

HARRISBURG VORTAC: VOR unusable in following areas: 105–140° beyond 26 mi; 140–165° beyond 30 mi; and 195–230° beyond 28 mi. DME unusable 325–360° beyond 30 mi; and 360–025° beyond 35 mi.

IMPERIAL VORTAC: VOR unusable 150–170° below 8,000′ MSL and 345–360° below 14,500′ MSL.

LANCASTER VOR: VOR unusable in following areas: 190–220° beyond 25 mi below 3,000′ MSL; 220–250° beyond 25 mi below 4,000′ MSL; 320–340° beyond 15 mi below 5,000′ MSL; 320–340° beyond 25 mi below 6,000′ MSL.

LATROBE VOR: VOR unusable beyond 20 mi.

SELINSGROVE VORTAC: VOR unusable in following areas: 105–115° beyond 26 mi below 3,000′ MSL; 210–230° beyond 35 mi below 2,500′ MSL; and 250–285° beyond 26 mi below 3,400′ MSL. DME unusable 100–115° beyond 30 mi below 3,000′ MSL; 115–170° beyond 35 mi below 2,900′ MSL; 190–300° beyond 35 mi below 3,500′ MSL.

YARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250–265° beyond 17 mi; 265–280° beyond 10 mi; and 280–290° beyond 17 mi. DME unusable 225–275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

PROVIDENCE VORTAC: VOR and DME unusable 220–310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

ALLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

FLORENCE VORTAC: VOR unusable 360–010° beyond 20 mi below 5000′ MSL.

MYRTLE BEACH VOR: VOR unusable 220–245° beyond 15 nmi below 2500′ MSL; 350–015° beyond 10 nmi below 5000′ MSL.

TEXAS

AMARILLO VORTAC: DME unusable 110–235° beyond 15 NM below 7000′ MSL.

AUSTIN VORTAC: VOR unusable 260–320° beyond 35 mi below 3,500′ MSL.

EL PASO VORTAC: DME unusable 265–300′ beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085–210° beyond 35 mi below 2,500′ MSL.

SALT FLAT VORTAC: VORTAC unusable 031–049° beyond 30 NM below 15,000′ MSL.

UTAH

CEDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi 090–125° and beyond 35 nmi 125–150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040–080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330–005° and below 13,500′ MSL beyond 40 nmi from 170–200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180–220°; below 12,000′ MSL 280–310°; below 11,000′ MSL 310–330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025–115°, 30 nmi, 235–330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360–055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010–035°; below 16,000′ MSL 035–050°; below 15,000′ MSL 275–285°; below 14,000′ MSL 285–295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010–020°; below 20,000′ MSL 020–030°; below 23,000′ MSL 030–060°; below 24,000′ MSL 060–080°; below 19,000′ MSL 080–095°; below 17,000′ MSL 095–125°; below 16,000′ MSL 125–140°; below 16,000′ MSL 195–210°; below 10,000′ MSL 280–290°; below 16,000′ MSL 350–010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220–260°.

VERMONT

BURLINGTON VOR: VOR unusable 080–155° beyond 30 mi below 9,000′.

MONTPELLER VOR: VOR unusable 205–280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230–270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360–010° beyond 5 nmi, 010–020° beyond 10 nmi, 020–030° beyond 20 nmi, 030–040° beyond 10 nmi, 040–060° beyond 20 nmi. 190–210° beyond 5 nmi, 230–240° beyond 20 nmi, 240–300° beyond 5 nmi, 310–330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050–075° beyond 30 mi; 075–095° beyond 20 mi; 105–120° beyond 35 mi; and 165–215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355–010° beyond 18 nmi below MEA 030–070° beyond 20 nmi below MEA 170–190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215–250° beyond 8 mi below 1,800′ MSL and 215–270° between 14,500–18,000′ MSL.

LINDEN VORTAC: DME unusable 140–180° beyond 25 mi below 3,500′ MSL and 180–225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110–220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 286–360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130–150°, 4500′ MSL and 150-290°. 4000′ MSL. VOR intermittent roughness may be observed on V-23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RBN: H facil unusable 100–130° below 6500′ MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280°. VOR 348° rad unusable below 4500′ VOR intermittent roughness may be observed on V287, 148° rad below 7000′ from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270°. Coverage within R-6715 from 270-320° not flt checked.

PORT ANGEL8S VOR: VOR coverage 40 nmi; 220–110° at 7000′; 110-140° at 14,500′; 140-150° at 20,500′: 150-170 °at 29,000′; 170-190° at 20,500; 190-220° at 16,000′.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000′ MSL from 158-165° beyond 20 nmi below 12,000′ MSL from 305-355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000′ MSL and beyond 50 nmi below 18,000′ MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000′, 355-020° and 148-176°: below 7500′ from 130–150°; be'ow 10,500′ from 020-060° and 110-130°; below 12,700′ from 065-110°.

WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000′ MSL 000-020° beyond 30 nmi below 20,000′ MSL 020-075° beyond 40 nmi below 14,000′ MSL 075-090° below 18,000′ MSL 090-190° below 19,000′ MSL 190–240°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325–350° beyond 20 mi below 5,000′ MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100–150° and 230–060° beyond 20 mi below 3,300′ MSL.

MADISON, TRAUX RDO: Truax VOR unusable within 10 mi above 7000′ MSL.

TIMMERMAN VOR: VOR unusable 300–310° beyond 35 mi below 3,400′ MSL.

WAUSAU VORTAC: DME unusable 300-310° beyond 30 nmi below 3000′ MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion on V-85 20-25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000′ MSL 160-175°; below 15,000′ MSL 175-200° and below 16,500′ MSL 200–230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

•**Aberdeen, S.D.:** 301°; over apch end rnwy 30; 1700′.

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexander, La. (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Alliance, Nebr.: 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Battle Creek, Mich.: 262°; 11 mi from VORTAC over power house stacks 1 mi E of Comstock, Mich.; 2000′.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16–34; 1000′ MSL.

Bemidji, Minn: 131°; over apch end rnwy 13; 1800′.

Big Spring, Tex.: 199°; over the rdo bcn; 1000′ AGL.

Billings, Mont: 073°; over int of rnwys 22–27; 4600′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Blytheville, Ark.: 094°; over hangar adj to Admin Bldg.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brainerd, Minn.: 294° over centerline apch end rnwy 30; 1800′.

Brownwood, Tex.: 169°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

Burlington, Iowa: 296°; over rdo twr 3 nmi NNW Burlington Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500′.

Cape Girardeau, Mo.: 032°; over smoke stack 3.2 NM NNE; 1700′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21–25–30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.; 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

Crestview, Fla. 106°; over rot bcn twr; 300'.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over metal hangar.

Cut Bank, Mont: 311°; over center rnwy 31; 4800'.

Daggett, Calif.: 224°; over center twr LFR; 2500'.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 and 17; 1700'.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500'.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Delta, Utah: 346°; at apch end of rnwy 34; 4900'.

Des Moines, Iowa: 293°; over grain elev Cummings, Iowa; 2000'; 5.5 NM from VOR.

Devils Lake, N. Dak.: 178°; 7.2 nmi over 2087' MSL rdo twr; 2600'.

Dublin, Ga. (Municipal): 067°; over SW end NE/SW rnwy.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200'.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

●**El Dorado, Ark.** ((Goodwin Fld): 004°; 6 nmi over water twr in Smackover.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7-25; 2300'.

El Paso, Tex.: 232°; over water twr, 2 mi SE of arpt; 5000'.

El Toro MCAS, Calif (Orange City): 254°; over int rnwys. 19R and midfld txwys; 200'.

Emporia, Kans.: 047°; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500'.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2-20; 1500'.

Evansville, Ind. (Dress Memorial): 056°; 13 miles over intersection E/W and NE/SW runways; 2000'.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR; 2300'.

Fayetteville, Ark.: 183°; VORTAC; white circle on arpt; 2500'.

Fayetteville, N.C.: 239°; over water twr at Parktown, N.C. 8.0 nmi; 1200'.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800'.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000'; aprxly 5 nmi from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000'.

Flint, Mich (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200'.

Fort Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E-W hvy dist 4.9 nmi from transmitter.

Fort Smith, Ark.: 232°; water tank at N edge of arpt; 1300'.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800'.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400'.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800'.

Fulton, Ga.: 288° over water tank 2.4 NM NW side of arpt; 2000' MSL.

Gage, Okla.: 094°; over LFR; 3000'.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100'.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000'.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500'.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nmi; 4000'.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE-VOR; 2000'.

Grand Island, Nebr.: 142°; over smoke stack 5.5 nmi from VOR; 3100'.

Grand Junction, Colo. Walker Fld): 059°; int rnwys 29 and 22; 6500'.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000'.

Greeley, Colo. (Weld Co. Arpt): GLL 204°; over int rnwy 12 and E/W twxy; 6100'.

Hallsville, Mo.: 225°; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000'.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 100°; over triangle formed by rnwys: 2000'.

Hastings, Nebr.: 266°; 11 nmi over RR crossing in center of town of Kenesaw; 3200'.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt 10 nmi, 800'.

Hibbing, Minn.: 311°; over FSS Bldg; 2400'.

Hickory, N.C.: 225°; over end rnwy 24.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 20 nmi from the VOR.

Hobart, Okla.: 352°; centerline of N/S rnwy 100' above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County): 030°; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500'.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100'.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500'.

Houma, La.: 117°; over intersection of rnwys 17-35 and 11-29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500'.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Hutchinson, Kans.: 033°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200'.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200'.

Iowa City, Iowa: 019°; over arpt bcn; 2000'.

Jack's Creek, Tenn. (McKellar): 267°; over bcn twr above arpt 27.5 NM; 1500′.

Jackson, Miss. (Hawkins): 189°; over int rnwys 11–29 and 34–16. 10.8 nmi

Janesville, Wis. (Rock Co. Arpt): 034°; over center of apch end of rnwy 04; 1600′.

Jefferson City, Mo.: 123°; 9.1 NM over hwy bridge on Osage rvr; 2500′ MSL.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500′.

Kalispell, Mont (Flathead Co. Arpt): 314°; apch end rnwy 9; 4000′.

Kearney, Nebr: 215°; over rdo twr KGFW, 4.8 NM SW of arpt; 3000′.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt. 17.0 nmi from HBG VOR, 800′.

Lawrenceville, Va.: 123°; over arpt bcn; 1500′.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 050°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000′.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Manhattan, Kans. (Mun): 062°; 6 nmi over RR bridge SE; 2,500′.

Manitowoc: 162°; over Manitowoc Portland Cement Co. Stack 1.9 mi; 1900′.

Marion, Ill: 274°; int rnwys 6–24 and 18–36 at Southern Arpt; 12 NM W; 1000′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

Maxwell, Calif. (Willows-Glen Co. Arpt): 342°; over apch end rnwy 34; 600′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

McCook, Nebr.: 311°; 8.5 nmi over int of E/W and NW/SE rnwys; 3500′.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Midland, Tex. (Air Trml): 170°; over apch ends of rnwys 22 and 28; 1000′.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

●**Milwaukee, Wis.:** 134°; 30 nmi over Horlick-Racine arpt; 2100′.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys: 3500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

●**Monticello, Ark.:** 305°; 5.7 nmi over white water twr; 1500′.

Muskegon, Mich. (County): 256°; over Muskegon LFR; 1500′.

Myrtle Beach, S.C. 061°; over apch end rnwy 5 Crescent Beach Arpt.; 500′.

Napa, Calif.: 046°; over arpt bcn; 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi NE of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iowa; 2500′.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

New Bern, N.C.: 259°; Int of E/W rnwys Oak Grove (navy) arpt.

New Orleans, La. (Lakefront Arpt): 081°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton, Nebr.; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

Nortth Platte, Nebr. (Lee Bird): 083°; over water twr Brady, Nebr.; 4000′.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR int rnwys 17–35 and 12–30; 1800′.

Omaha, Nebr. (Eppley Fld); 310°; centerline of SE end of NW/SE rnwy.

O'Neil, Nebr.: 117°; at intersection of E/W road and the railroad ½ nmi SE of Inman, Nebr.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 3.5 nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Park Rapids, Minn.: 208°; over northern most of two twrs 5.2 nmi; 2100′.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Co. Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 3300′.

Phoenix, Ariz.: 256°; centerline rnwy 8R-26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar at Southern Pines, Pinehurst-Southern Pines Arpt.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4–22 and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500′.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450′.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800′.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

●**Presque Isle, Me.** (Loring AFB): 184°; Spragueville LFR site; 2000′.

Princenton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo, Colo. (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).

Quitman, Tex.: 241°; water tank, town of Alba, Tex.

Rawlings, Wyo. (Munl): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300′.

Raymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500′.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000′.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

Roberts, Ill.: 074°; over int E/W highway, N/S RR ½ mi N Buckley, Ill; 1600′.

Rochester, Minn.: 024°; int rnwys 13–31 and 2–20 8.5 NM; 3000′.

Roswell, N. Mex.: 027°; over apch end rnwy 3; 4000′.

Royston, Ga.: 067°; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt; 1250′.

Russell, Kans.: 092°; over water twr in center of town of Wilson, Kans.

Sacramento, Calif.: 015°; apch end rnwy 02; 100′.

Saginaw, Mich. (Tri-City): 058°; 6.7 mi NE of MBS VOR over hwy int US #10 and I 75; 1700′.

St. Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

Salina, Kans.: 117°; over grain elevator town of Kipp 10 nmi; 2500′.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

Samsville, Ill.:064°; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

Sault Ste. Marie, Mich. (Mun): 336°; int E–W and NW/SE rnwys; 2100′.

Sayre, Okla. (Mun): 175°; over rot bcn twr; 3000′.

●**Sheridan, Wyo.** (County): 122°; over center of apch end rnwy 13, distance 5 nmi; 5000 MSL.

Shreveport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.

●**Shreveport, La.** (Greater Shreveport): 290°; 10 nmi over white water twr; 1500′.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000′.

Sulphur Springs, Tex.: 229°; over awy bcn lgt on SE corner of arpt.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over center of segmented circle on Anniston, Ala. Arpt.; 2000′ MSL.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 122°; over int rnwys 13–31 and 4–22; 1000′.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

Thief River Falls Minn.: 124°; over RR & hiway crossing adj Hazel, Minn.; 2000′.

Toccoa, Ga.: 179°; over arpt bcn; 1500′.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S–E/W rnwys; 1600′.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

Vienna, Ga. (VORTAC): 226°; over center of NE/SW rnwy, Cordele, Ga., Arpt.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.

Wichita, Kans.: 162°; centerline of NW end of NW/SE rnwy.

Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml): 011°; at bridge over Red River 8 nmi N of Sheppard AFB; 1500′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11: 2600′.

Wilmington, N.C. (New Hanover Co.): 204°; over wea radar ant on arpt 5.5 nmi; 1000′.

Wink, Tex. (Winkler Co.): 149°; over int rnwy 22 and 13 5.9 nmi VOR; 3818′.

Winner, S.D. (Mun): 201°; over center of race track 7.8 nmi; 3000′.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C.: 295° (GSO VOR): over ctl twr.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600′.

Yankton, S.D.: 257°; 7 nmi over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17-35; 400′.

GROUND

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN): 207°; lctd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt): 002°; S-end on curve of taxiway 50′ W apch end rnwy 35 centerline.

Anderson, S.C. (Mun): 039°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun): 042°: adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13-31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4-22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17-35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13-31.

Baltimore, Md. (Friendship Int'l): Lctn #1-293°; centerline of rnwy 10-28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10-28 on runup pad.

Bartlesville, Okla. (Phillips): Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County): 051°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County): 140°; ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

Bismarck, N. Dak: 275°; N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L-10R and 28R-10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 023°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City): 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and twr bldg on ramp.

Cedar Rapids, Iowa; 080°; rnwy runup pad apch end rnwy 13.

Chanute, Kans.: 051°: apch end rnwy 12.

Chattanooga, Tenn. (Lovell): 332°; centerline S taxiway at point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 200°; on yellow line on taxi strip immediately SE or apch end rnwy 8; 4.0 nmi.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15-33.

Childress, Tex.: 353°; intersection of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp on Easterwood Arpt.

Columbia, S.C. (Owens Fld): 022°; compass rose on parking ramp.

Columbia, S.C. (Mun): 332°; 6 NM E/W taxiway (parallels rnwy 10-28).

Columbus, Ga. (Muscogee Co.): 145°; pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM-TPA): 300°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison): 159°; intersection of center and parallel taxiways.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/SE rnwy.

Dothan Arpt, Ala: 334°; on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl): 160°; int of SW ramp and txwy T-2.

Dubuque, Iowa: 332°; on ramp at Term. Bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 3 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld): trml ramp at intsxn N/S and ctr txwys.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): Lctn #1—028°; lctd on taxiway leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5-23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Erie, Pa. (Erie-Port Erie): 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Amin Bldg.

Florence, S.C.: 235°; on taxiway W of the end of rnwy 18.

Fort Benning, Ga. (Lawson AAF): Lctn #1—021°; run up area on txwy at apch end of rnwy 20. Lctn #2—130°; run up area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt): 120°; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page): 172°; N side of Trml ramp.

Fort Riley, Kans (Marshall AAF): 032°; on parking ramp adj to radar antenna.

Fort Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex.: 116°; on ramp N of terminal.

Frederick, Md. (Mun): 359°; txwy between rnwys near apch end rnwy 23.

Gage, Okla.: 109°; int txwys, NW corner of ramp.

Gallup, N. Mex. (Senator Clarke Fld): 050°; ctr of txwy in front of term bldg; 5.2 nmi from VOR.

Goldsboro, N.C. (Seymour Johnson AFB): 280°; run up pad at apch end rnwy 8.

Great Falls, Mont. (Intl): #1–027°; int NE/SW and E/W txwys adjt to apch end rnwy 34; 2.4 mi. #2–027°; on NE/SW txwys 100' SW rnwy 25; 3.0 mi.

Greeley, Colo. (Weld Co. Arpt): Gill VOR 204°; int rnwys 12 and E/W txwy; 5.8 nmi.

Green Bay, Wis. (Austin-Straubel): 141°; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C.: 033°; Ramp in front of twr.

Greenwood, Miss.: 060°; central taxiway adj to ramp.

Greenwood, S.C. (County): 251° on taxiway apch end of rnwy 9.

Gulfport, Miss.: 098°; 100' NW of ctl twr.

Harrison, Ark.: 131°; Int taxiway and ramp.

Helena, Mont.: 235°; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County): 030°; on runup pad apch end rnwy 3.

Holston Mountain, Tenn.: 282°; on ramp S of Term Bldg.

Hot Springs, Ark.: 246°; run-up area short of apch end rnwy 5.

Houston, Tex.: 292°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld): 007°; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375' from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 359°; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

Key West, Fla. (Boca Chica): 091°; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l): 127°; NW portion of ramp.

Kinston, N.C. (Stallings): 230°; 500' in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154' N of txway in front of Admin Bldg., and 36' from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga.: 106°; on compass rose at taxi strip intersection aprxly 500' due S of Admin Bldg.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City): 053°; center of apch end rnwy 6

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351° last txwy W side apchg rnwy 19.

Las Vegas, N. Mex.: 231°; on apron N of FSS bldg.

Lawton, Okla.: 349°; on trml apron at the point intersecting the S taxi strip.

Little Rock, Ark. (Adams): 314°; on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

Longview, Tex. (Gregg Co): 126°; N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 103°; center of warm up pad for rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen): 026°; mid txwy to rnwy 17–35.

Manhattan, Kans. (Munl): 145°; on ramp in front of Trml Bldg.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Alpine): 314°; 5 NM from VOR intsxn NW/SE—NE/SW txwy, 450' E apch end rnwy 30.

Marianna, Fla.: 310°; ESE end taxiway 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

McAlester, Okla. (Mun): 350°; taxistrip at terminal ramp.

●**McAllen, Tex.** (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S rnwy. Lctn #2—012°; in front airline trml on gate two loading spot,.

Melbourne, Fla. (Eau Gallie). 145°; 500' E of Term Bldg.

Meridian, Miss. (Ky): 121°; from run up ramp for rnwy 23.

Midland, Tex. (Air Trml): 178°; int txwy C and ramp in front of Trml Bldg.

Miles City, Mont: 036°; on txwy leading to rnwy 30.

Mineral Wells, Tex.: 307°; intersection of txwy and NW rnwy.

Missoula, Mont. (County): 340°; 5′ from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates): 107°; Int of N/S and E/W txwys E of rnwy 18–36. 109.5°; Int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

Monticello, Ark.: 329°; on ramp by gas pumps.

Morgantown, W. Va.: 157°; on txwy in front of Term Bldg.

Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX–AMA): 253°; on ramp in front of Admin Bldg.

New Bern, N.C.: 088°; on compass rose at ramp.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

New Orleans Intl, La. (Moisant Fld): 235°; center of perimeter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Ocala, Fla. (Mun): 139°; on ramp near trml bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bldg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Pahokee, Fla.: 344°; overrun rnwy 35.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.

Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S and E/W txwys of arpt.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg; 2.9 nmi.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

Raleigh, N.C.: 244°; end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 090°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1–19 and 305′ from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turnaround E end rnwy 25; 1.9 nmi Lctn #2—261°; in center of turn-around W end rnwy 7; 3.1 nmi.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 261°; right 3 rnwy 33, marker.

Rome, Ga. (Russeell Fld): 348°; Intersection of taxiways 200′ S of the terminal bldg.

St. Paul, Minn., (Downtown Arpt): 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parking ramp 500′ SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis): 236°; E edge of ramp in front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santta Rosa Calif. (Sonoma Co. Arpt): 083.5°; SW corner main ramp.

Sante Fe, N. Mex. (New Municipal): 334°; at junction main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N trml bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposite trml bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200′ N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400′ S of N end of taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans.: (Philip Billard Arpt): 213°; N/S taxiway W of tetrahedron.

Truth or Consequences, N. Mex.: 157°; on NE/SW txwy 200′ NW of wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

●**Vichy, Mo.:** 241°; on txwy W of NE/SW rnwy.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex., (Muni): 132°; ramp N of terminal.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 051°; taxi strip at parking apron adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; vcnty of base operator ramp.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300′ from centerline rnwy 14–32.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1966

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	X	
Balboa	FAA	X	
Cold Bay	FAA	X	
Dallas	BNF	X	
Guam	FAA	X	
Honolulu	ARINC	X	X
Miami	ARINC	X	X
New York	ARINC	X	X
New Orleans	ARINC	X	X
Okinawa	ARINC	X	X
Pago Pago	FAA	X	
Point Barrow	FAA	X	
San Francisco	ARINC	X	X
Shemya	FAA	X	
San Juan	ARINC	X	X
Seattle	ARINC	X	X
Wake Island	FAA	X	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard flields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

TRAFFIC INFORMATION ON MERGING RADAR TARGETS

Effective July 31, 1966, ATC facilities will implement a traffic information service on merging radar targets to radar identified scheduled air carrier aircraft. Traffic information will be issued to a radar identified scheduled air carrier aircraft when his radar target is likely to merge with another observed radar target, unless the observed traffic is known to be separated by more than the minimum vertical separation for his altitude. This service will not be provided to aircraft while they are holding in a holding pattern. Pilots should expect other traffic to be in a holding pattern with approved separation. Such traffic information will be issued routinely unless the controller is engaged in the provision of separation to the extent that it is not possible to provide this traffic information.

A vector to avoid merging targets will be provided only at the pilot's request and then *only* on a workload permitting basis. The vector, when provided, will not necessarily provide approved radar separation (three or five miles). The controller will attempt to provide vectors only to the extent that the targets do not touch.

Standard phraseologies for issuing traffic information and vectors will be used.

July 1966

SIMULTANEOUS OPPOSITE DIRECTION OPERATIONS ON PARALLEL RUNWAYS

Controls towers may authorize opposite direction operations on parallel runways, on parallel landing strips, or on a runway and a parallel landing strip, when the following conditions are met:

a. All operations are conducted in VFR conditions, two-way communications are maintained with the aircraft involved, and pertinent traffic information is issued.

b. For operations between sunrise and sunset, a distance of at least 1400 feet exists between parallel runway centerlines, between adjacent edges of parallel landing strips, or between adjacent edges of a runway and a parallel landing strip.

c. For operations between sunset and sunrise, a distance of 2800 feet exists between parallel runway centerlines. (Note: Simultaneous opposite direction operations are not authorized between sunset and sunrise on a runway and a parallel landing strip or on parallel landing strips.)

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-36S, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-36S, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

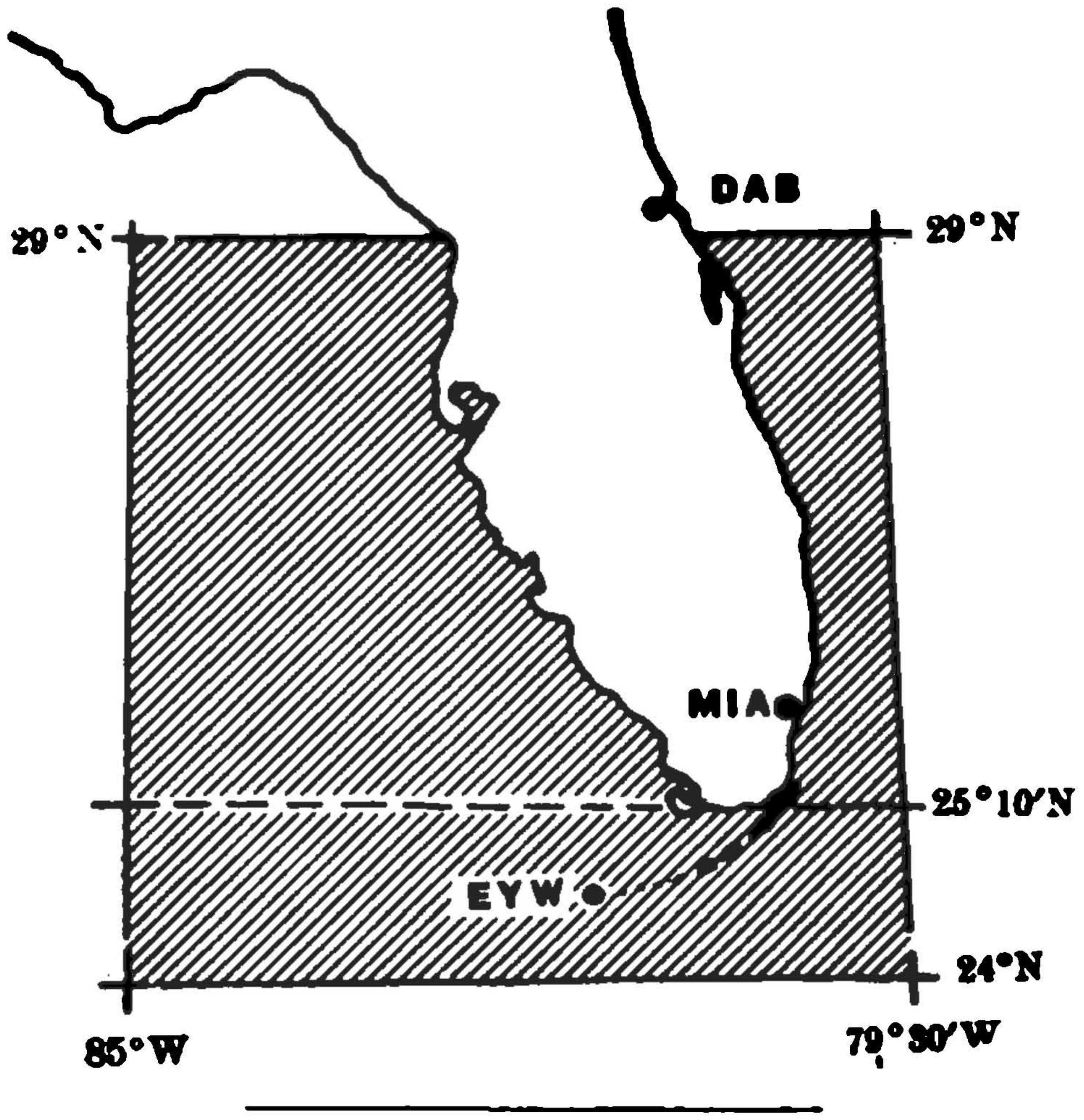
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30'W long. to 24°N lat., 79°30' W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10'N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10'N and 29°00'N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

PART-TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

St. Petersburg, Albert Whitted Arpt: 0600–2200 local time daily.

Sarasota: 0600–2200 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

Benton Harbor: 0730–2200 local time daily.

Escanaba: 0730–2200.

Iron Mountain: 0800–2145 local time daily.

Ironwood: 0630–2030 local time daily.

Menominee: 0800–2130 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainard: 0730–2030 local time daily.

Fairmont: 0715–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

Winona: 0900–1845 local time Mon-Fri and 0900–1630 local time Sat and Sun.

Worthington: 0800–1845 local time daily.

MISSOURI

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

Kearney: 0700–2200 daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730–2100 local time daily.

NORTH DAKOTA

Devils Lake: 0600–2300 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

●**Hillsboro:** 0600–2200 local time daily.

SOUTH CAROLINA

●**Myrtle Beach/Crescent Beach:** 0800–2130 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Killeen: 0600–2000 local time daily.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630- 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

Bremerton: Efctv Aug 18, 1966, 0900–1800 local time daily.

●**Pullman:** 0700–2400 local time daily.

●**Tacoma Industrial Arpt:** 0600–2400 local time daily except Sat 0600–2100 local time.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

Janesville: 0600–2300 local time Sun thru Fri and 0600–2200 local time Sat.

Manitowoc: 0800–2200 local time daily.

Rhinelander: 0700–2130 local time daily.

Stevens Point: 0700–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

g. To clear a departing aircraft via the route filed, the controller will state "CLEAR AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

The part-time manned facilities, which transmit and receive on 123.6 and 121.5 (emergency), the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0600–2000.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Concord, New Hampshire)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO—O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

DME at ILS Locations

The FAA has installed Distance Measuring Equipment (DME) at selected ILS glide slope locations for the purpose of determining the operational advantages of DME when used in conjunction with ILS. DME capabilities have been incorporated in the ILS instrument approach procedure at the following locations:

Airport	*Runway*
John F. Kennedy International, New York	04R
Albany County, New York	19
Minneapolis—St. Paul International, Minnesota	11R
Dulles International, Washington, D.C.	01R
St. Joseph County, South Bend, Indiana	09, 27
Cleveland—Hopkins International, Ohio	05R, 23L
Reno, Nevada	34, 16
Lindbergh Field, San Diego, California	09, 27

An operational evaluation will be conducted by the FAA at these locations commencing during the month of July, 1966. Questionnaires will be made available to pilot personnel to obtain user comments during the evaluation period. Pilots conducting operations into these airports with DME equipped aircraft are encouraged to utilize the DME capability of the ILS facilities and to report their findings and recommendations by submitting completed questionnaires to the FAA.

July 1966

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for that aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

May 1966

•EVALUATION OF AIRPORT TRAFFIC LIGHT SYSTEM WASHINGTON NATIONAL AIRPORT

The Airport Traffic Light System with 14 lights/signs has been installed at Washington National Airport. Beginning September 8, 1966, for a 45 day period this system will be evaluated to determine the feasibility of utilizing a Light System in the control of airport ground traffic. It will be used strictly as a back up for the verbal clearance issued by Ground Control or the Local Controller.

Light/sign signals have been installed at the end of Runway/s 3/36/33, at the entrance of these runways, and at most of the taxiway intersections affecting these runways in a North operation. The light/sign signal is strictly a backup to one of the following appropriate verbal clearances: (1) Cleared to cross (runway); (2) Taxi into position and hold; and (3) Cleared for take-off. These lights operate on the same principle as a traffic light; green light to go, and red light to hold. The operating concept provides that the traffic lights/signs will normally be showing red (HOLD). This will ensure that the active runways are always protected by a red light. When the Controller wishes to clear an aircraft to cross a runway or to clear an aircraft for take-off, in addition to a verbal clearance, the pilot will receive a green light (GO). The use of a green take-off light will automatically change all crossing lights on the active runway to red (HOLD). A safety lock out feature prohibits the use of a green crossing light until the take-off light has returned to red.

There will be no clearances issued solely by the Light System. As this System is strictly a back up to, and only confirms control instructions delivered by radio communications. If a pilot receives a light signal which conflicts with the verbal clearance, verify it with the controller.

The lights are rectangular in shape, approximately 47″ by 15″. When either cleared for take-off or cleared to cross a runway, the pilot will see the word "GO" in large white block letters on a green background. If not cleared he will see the word "HOLD" in white on a red background. When the system is inoperative a blank side of the light will be presented in black. These lights are located to the pilots left at points of entry to runways and ramp areas and can readily be seen from the cockpit.

A pilot questionnaire regarding the Light System will be made available. Your comments and opinions regarding the advantages or disadvantages of the Airport Traffic Light System are solicited.

1. This is an evaluation project only. It will be conducted in a North operation only.
2. No procedural or regularly changes are introduced. Tower will terminate the evaluation any time the normal flow of traffic is directly affected.
3. Lights will be operated only as a visual confirmation to verbal control clearance.
4. Lights do not pertain to landing aircraft or aircraft in the air.
5. No clearance will be issued solely by light signals.
6. For the purpose of the evaluation check a conflicting light against the verbal clearance.
7. **Control personnel may be testing the lights for familiarization during the month of August. Disregard the lights during this period.**

•MEA, MCA, MOCA, MRA, MAA

Efctv immediately MEA V-231, Charlo Int, Mont. to FCA is 9800 ft.

•USE OF VASI

(Visual Approach Slope Indicator)

FAR 91.87(d)(3) requires that an airplane approaching to land on a runway at an airport with operating control tower and served by a VASI shall maintain an altitude at or above the glide slope (visual) until a lower altitude is necessary for a safe landing.

• VFR AIRPORT TRAFFIC PATTERNS

(In accordance with FAR Part 91.89(c)(3))

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
Woodring Arpt.	35, 2, 30	Right turns	1600′ MSL
Enid, Okla.	20, 17, 12	Left turns	1600′ MSL

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis*.
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

- **●1. Airspace North of V18 airway from the surface to 3000 feet MSL.**
- **●2. Airspace South of V18 airway from the surface to 2000 feet MSL.**
- **3. All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   - a. Airports within the Atlanta TRSA:
     - (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   - b. Airports underlying the Atlanta TRSA:
     - (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   - c. **Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.**
   - ●d. **Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V-18 should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V-18 should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.**

In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	" "	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conyers	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. **The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.**
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. **Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.**

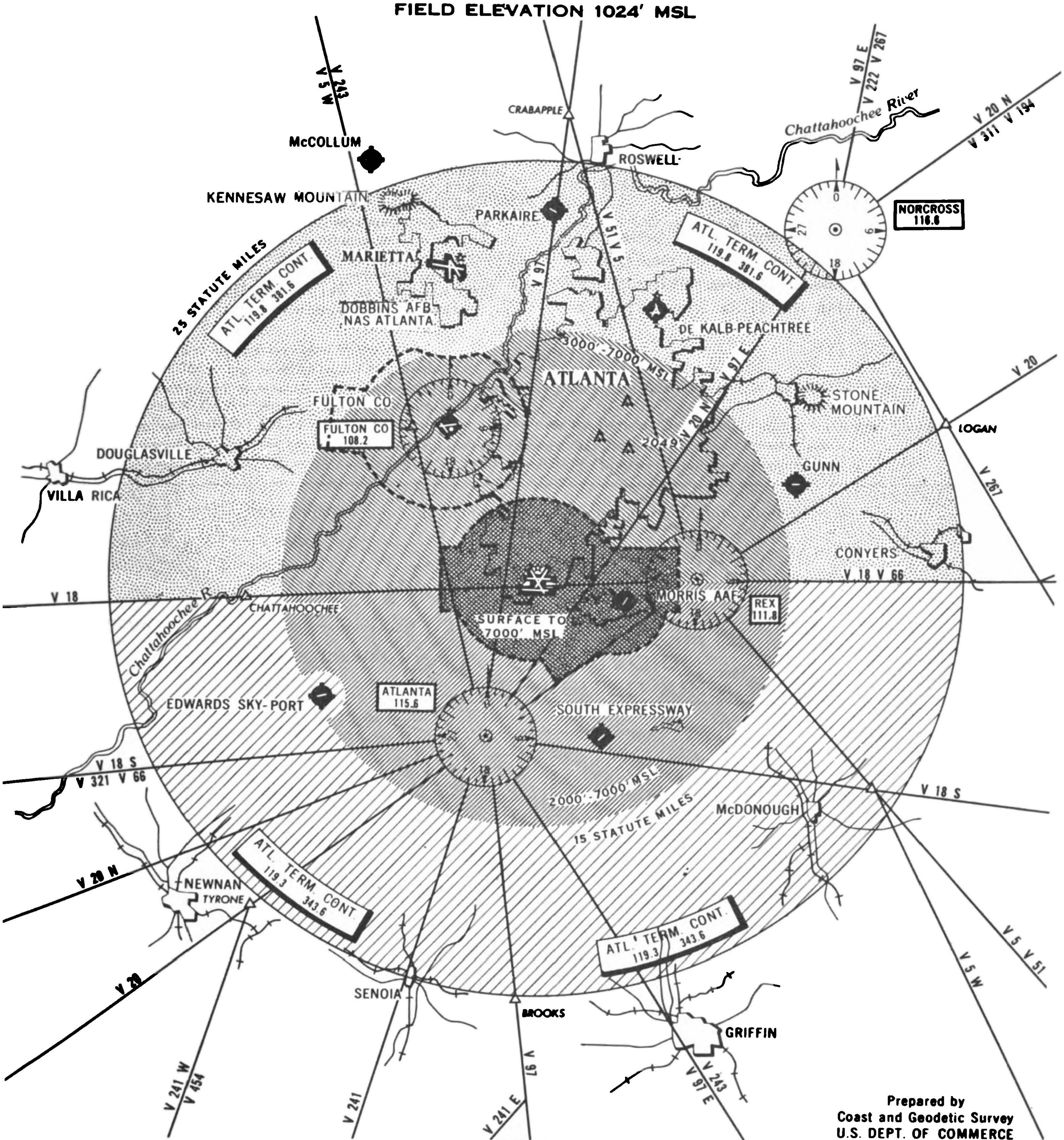
   NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. **Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.**

•TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024′ MSL


V 243
V 5 W
McCOLLUM
CRABAPPLE
ROSWELL
Chattahoochee River
V 97 E
V 222 V 267
V 20 N
V 311 V 194
KENNESAW MOUNTAIN
PARKAIRE
NORCROSS 116.6
25 STATUTE MILES
ATL. TERM. CONT. 119.8 381.6
MARIETTA
DOBBINS AFB NAS ATLANTA
V 97
V 51 V 5
ATL. TERM. CONT. 119.8 381.6
DE KALB-PEACHTREE
3000′-7000′ MSL
ATLANTA
V 97 E
V 20 N
V 20
STONE MOUNTAIN
LOGAN
FULTON CO
FULTON CO 108.2
DOUGLASVILLE
VILLA RICA
2049
GUNN
V 267
CONYERS
V 18 V 66
V 18
CHATTAHOOCHEE
Chattahoochee R.
MORRIS AAF
REX 111.8
SURFACE TO 7000′ MSL
EDWARDS SKY-PORT
ATLANTA 115.6
SOUTH EXPRESSWAY
V 18 S
V 321 V 66
2000′-7000′ MSL
15 STATUTE MILES
McDONOUGH
V 18 S
V 20 N
NEWNAN
TYRONE
ATL. TERM. CONT. 119.3 343.6
ATL. TERM. CONT. 119.3 343.6
V 20
SENOIA
BROOKS
GRIFFIN
V 5 V 51
V 5 W
V 241 W
V 454
V 241
V 241 E
V 97
V 243
V 97 E

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA	▨ 2000′-7000′	■ SURFACE TO 7000′	▨ 3000′-7000′
CONTACT OR CALL-UP AREAS	North of V 18	░	
	South of V 18	▨	

GEORGIA

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.
6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia Rivers. From takeoff climb to 1500', reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000' altitude. Stay over the River until passing through 3000' altitude unless otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1-AND 2-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 1500' prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 2000' prior to turning oncourse unless instructed to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.

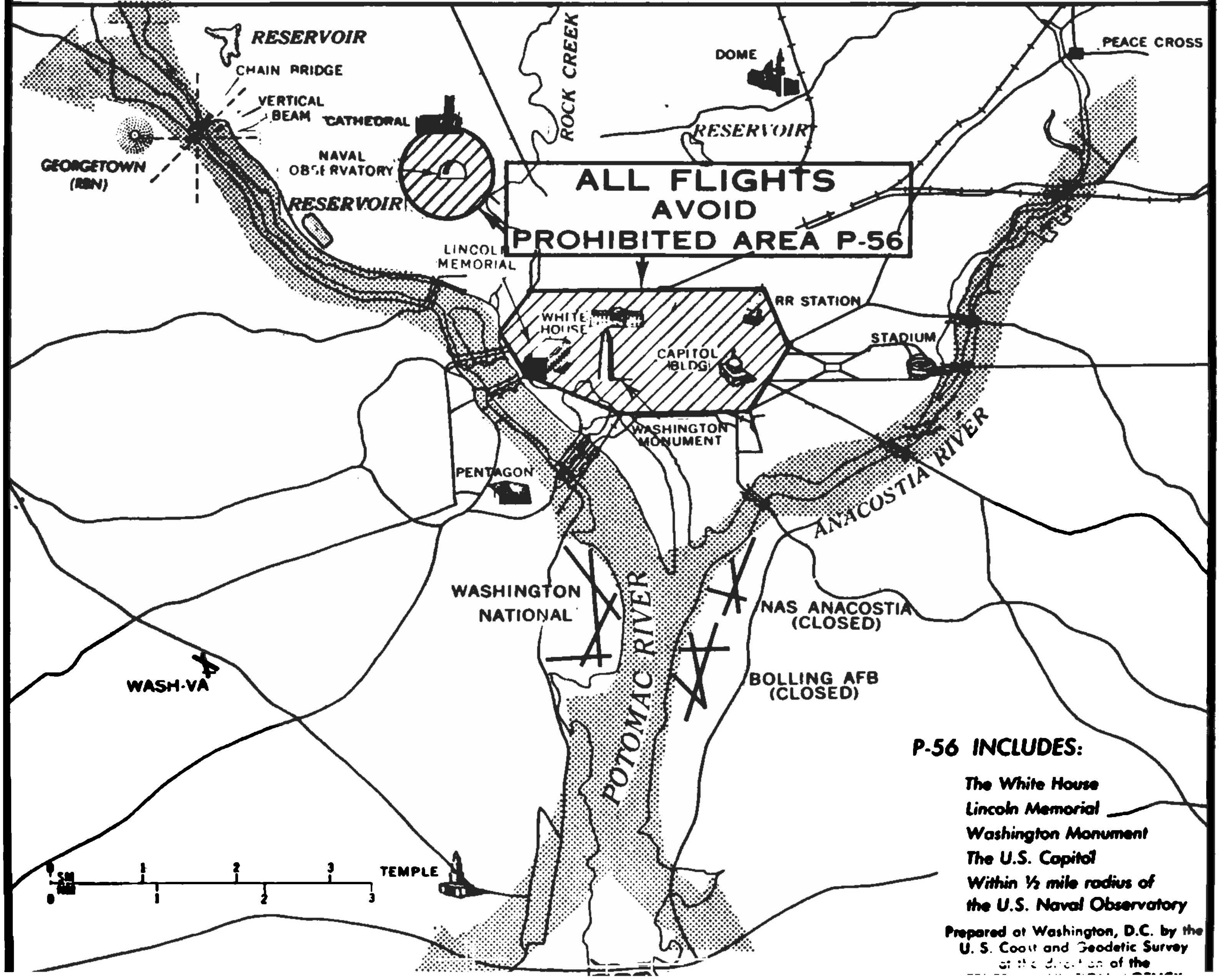
Remain at 2500' or higher while en route to final.

When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.

A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.

On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.

If VFR go around is required, climb over the River to 2500', enter traffic pattern for subsequent approach.


RESERVOIR
CHAIN BRIDGE
VERTICAL BEAM
CATHEDRAL
GEORGETOWN (RBN)
NAVAL OBSERVATORY
RESERVOIR
ROCK CREEK
DOME
RESERVOIR
PEACE CROSS
ALL FLIGHTS AVOID PROHIBITED AREA P-56
LINCOLN MEMORIAL
WHITE HOUSE
CAPITOL BLDG
RR STATION
STADIUM
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
POTOMAC RIVER
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
WASH-VA
TEMPLE
SM
NM
0
1
2
3

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of the U.S. Naval Observatory

Prepared at Washington, D.C. by the
U. S. Coast and Geodetic Survey
at the direction of the

CALIFORNIA

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
'122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West-Northwest
Crows Landing (NAS)	West
City of Gustine	West-Southwest
City of Los Banos	South-Southwest
City of Dos Palos	South
City of Chowchilla	East-Southeast
City of Madera	East-Southeast
City of Mariposa	East-Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

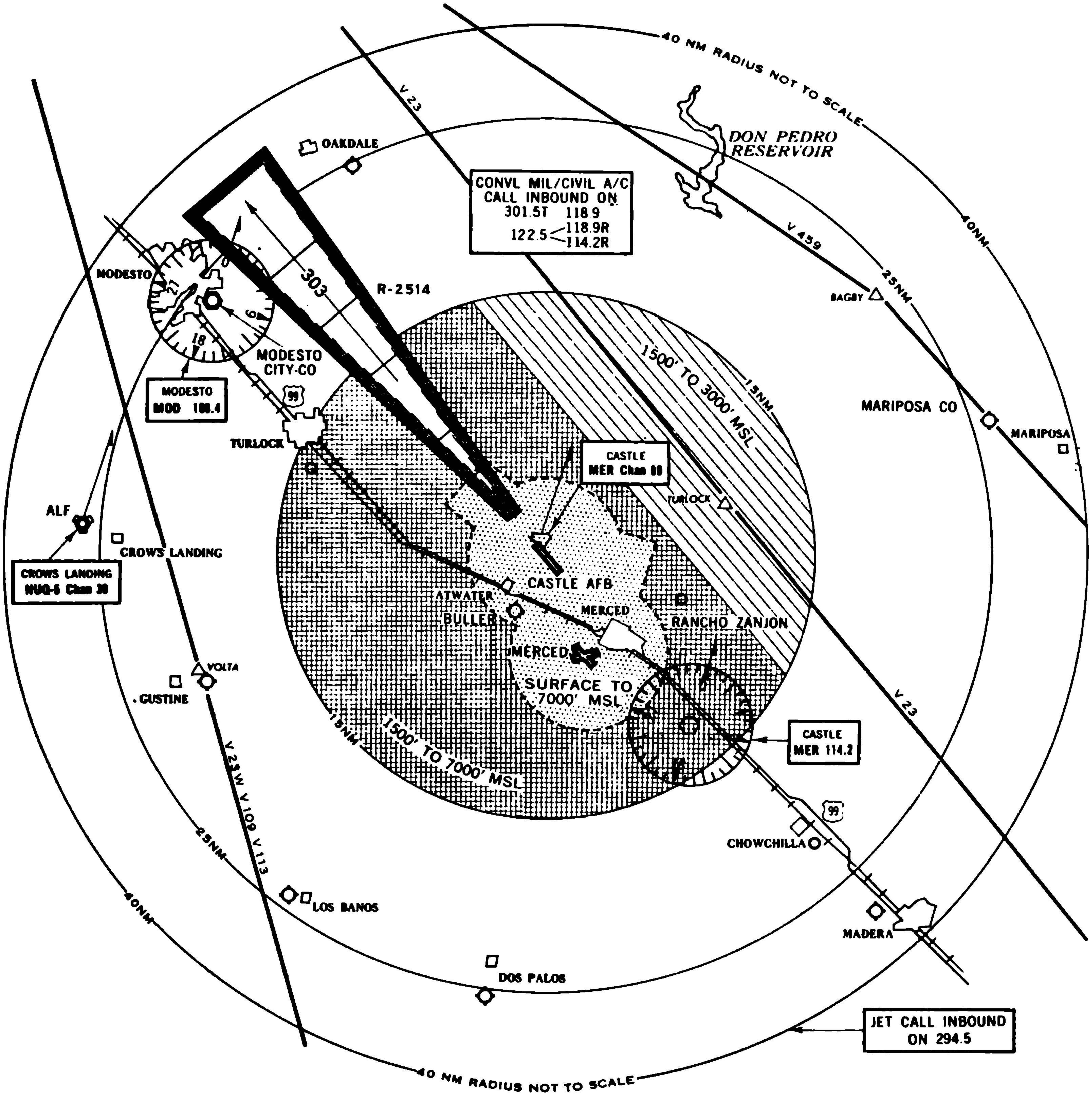
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188′ MSL


40 NM RADIUS NOT TO SCALE
V 23
OAKDALE
DON PEDRO RESERVOIR
CONVL MIL/CIVIL A/C CALL INBOUND ON 301.5T 118.9 122.5<118.9R 114.2R
V 459
40NM
25NM
BAGBY
MODESTO
303
R-2514
MODESTO CITY-CO
MODESTO MOD 108.4
99
TURLOCK
1500′ TO 3000′ MSL
15NM
MARIPOSA CO
MARIPOSA
CASTLE MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING NUQ-5 Chan 38
CASTLE AFB
ATWATER
BULLER
MERCED
RANCHO ZANJON
MERCED
SURFACE TO 7000′ MSL
VOLTA
GUSTINE
15NM
1500′ TO 7000′ MSL
CASTLE MER 114.2
V 23
99
CHOWCHILLA
V 23W V 109 V 113
25NM
40NM
LOS BANOS
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA ░ SURFACE TO 7000′ ▨ 1500′ TO 3000′ ▦ 1500′ TO 7000′

CONTACT OR CALL-UP AREAS CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

16 SEP 1965

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LOUISIANA, ARKANSAS AND OKLAHOMA TEMPORARY RESTRICTED AREA R-3806

JOINT TASK FORCE TWO, TEST 4.1

EFFECTIVE 26 MAY THRU 30 SEP 1966

Joint Task Force Two (JTF-2) an organization composed of representatives from all military services will conduct a test involving approximately 600 aircraft flights within the depicted temporary restricted area.

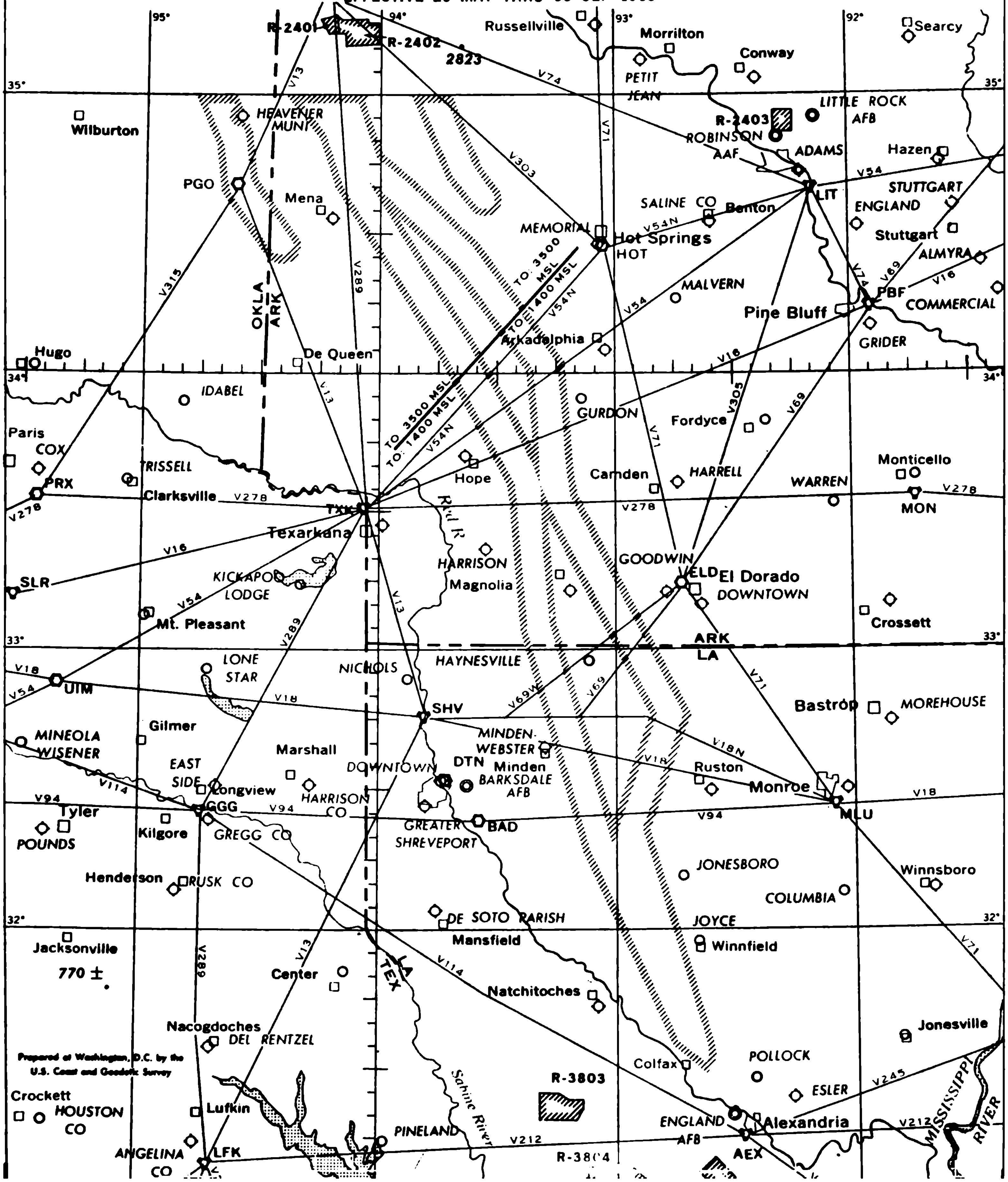
Navy, Marine, Army and Air Force aircraft and crews will participate in the test. Speeds of the various aircraft will range from 175 to 600 knots at altitudes normally below 500 feet. The test flights will normally be conducted within a six-hour period daily centered on the time when the sun is at its zenith, Monday through Saturday during the daylight hours. Maximum daily use by JTF-2 is eight hours. The restricted area is designated from the surface to 1,400 feet MSL southward from the north boundary of Victor Airway 54N and from the surface to 3,500 feet MSL north of V-54N.

This joint use restricted area will be released for public use whenever the ceiling over the area is less than 3,000 feet or flight visibility within is below five miles and at other times when not used for the purpose designated. Information on the times the area will be available for public use may be obtained from the Houston, Memphis or Fort Worth ARTC Centers, Flight Service Stations and combined stations/towers adjacent to the area, the Hot Springs, Arkansas or Tulsa, Oklahoma control towers, or by reverse charge telephone calls to the Test Director, England AFB, Louisiana, or the Mena Command Post, Mena, Arkansas. The Test Director has advised that nonparticipating pilots who have a requirement to use the restricted airspace even though activated, will be permitted use of the area subject to test flight activity. Such requests should be directed to the Test Director or the Mena Command Post by telephone. The telephone numbers will be publicized throughout the area prior to the start of the test.

Designated altitudes:	*Surface to 1,400 feet MSL from point of beginning to 4 nmi north of and parallel to the centerline of V-54 north alternate, thence 3,500 feet MSL to the completion of the courses.*
Time of designation:	*Sunrise to sunset, Monday through Saturday from May 26, 1966, through September 30, 1966. Maximum daily use, eight hours.*
Controlling agency:	*FAA, Houston ARTCC.*
Using agency:	*Joint Task Force Two, Sandia Base, New Mexico.*

LOUISIANA, ARKANSAS AND OKLAHOMA
TEMPORARY RESTRICTED AREA R-3806
JOINT TASK FORCE TWO, TEST 4.1

EFFECTIVE 26 MAY THRU 30 SEP 1966

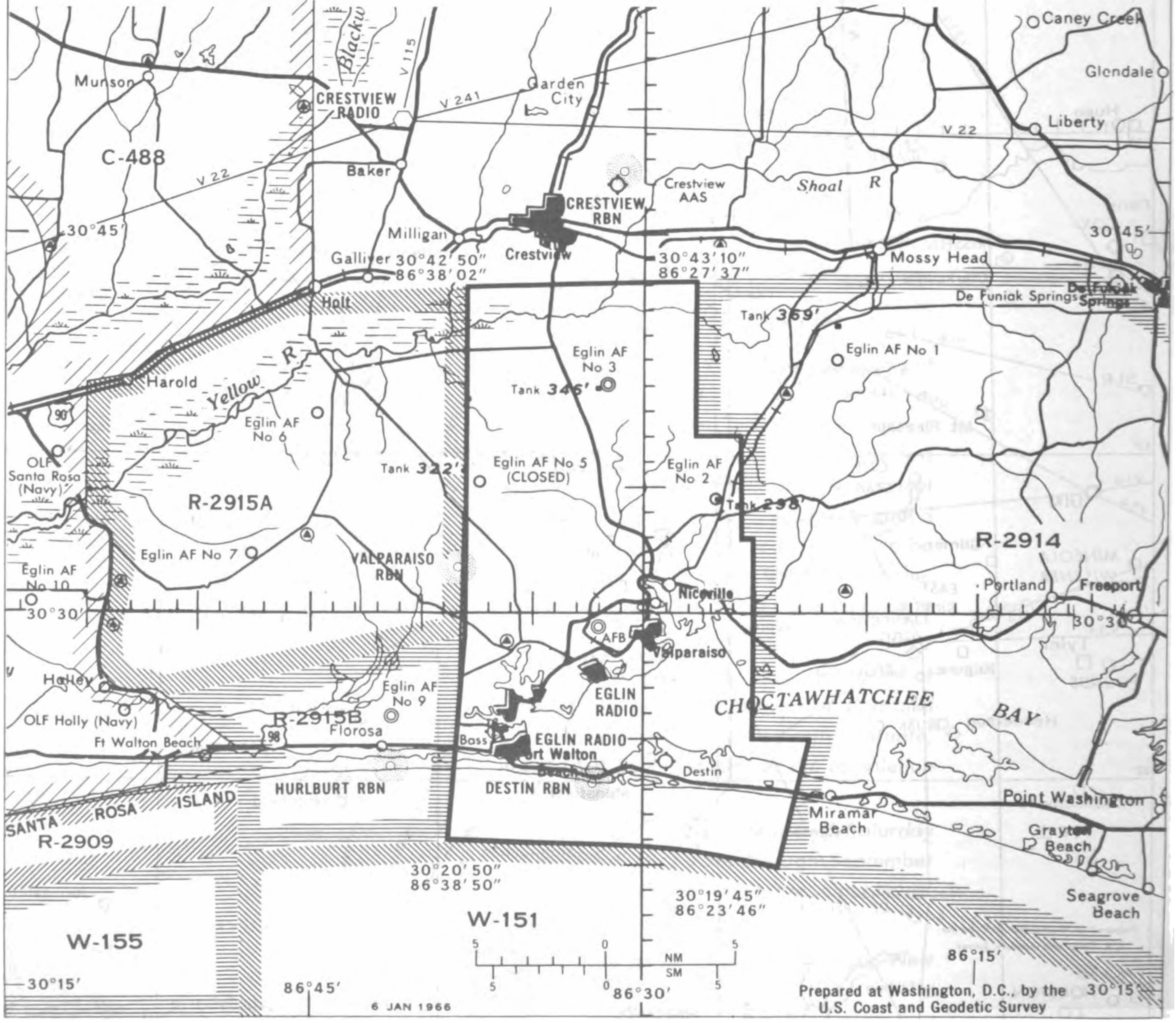

95°
94°
93°
92°
35°
34°
33°
32°
R-2401
R-2402
2823
Russellville
Morrilton
Conway
Searcy
PETIT JEAN
V74
V13
Wilburton
HEAVENER MUNI
LITTLE ROCK AFB
R-2403
ROBINSON AAF
ADAMS
Hazen
V303
V71
PGO
Mena
V54
LIT
STUTTGART
ENGLAND
SALINE CO
Benton
MEMORIAL
Hot Springs
HOT
V54N
Stuttgart
ALMYRA
TO 3500 MSL
TO 1400 MSL
V289
V315
OKLA
ARK
MALVERN
V16
PBF
COMMERCIAL
Pine Bluff
GRIDER
Arkadelphia
Hugo
De Queen
IDABEL
GURDON
V305
V69
Fordyce
Paris
COX
TRISSELL
Hope
Camden
HARRELL
WARREN
Monticello
MON
V278
PRX
Clarksville
TXK
Texarkana
Red R
HARRISON
Magnolia
GOODWIN
ELD
El Dorado
DOWNTOWN
Crossett
SLR
KICKAPOO LODGE
Mt. Pleasant
ARK
LA
V18
UIM
LONE STAR
NICHOLS
HAYNESVILLE
V69W
SHV
Bastrop
MOREHOUSE
MINEOLA WISENER
Gilmer
MINDEN-WEBSTER
V18N
EAST SIDE
Longview
Marshall
DOWNTOWN
DTN
Minden
BARKSDALE AFB
Ruston
Monroe
V114
V94
Tyler
GGG
HARRISON CO
MLU
POUNDS
Kilgore
GREGG CO
GREATER SHREVEPORT
BAD
JONESBORO
Winnsboro
Henderson
RUSK CO
COLUMBIA
DE SOTO PARISH
JOYCE
Jacksonville
770 ±
Mansfield
Winnfield
Center
LA
TEX
Natchitoches
Jonesville
Nacogdoches
DEL RENTZEL
POLLOCK
Colfax
Sabine River
R-3803
ESLER
V245
MISSISSIPPI RIVER
Crockett
HOUSTON CO
Lufkin
PINELAND
ENGLAND AFB
Alexandria
V212
ANGELINA CO
LFK
R-3804
AEX

Prepared at Washington, D.C. by the U.S. Coast and Geodetic Survey

VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES
(VFR OR VFR CONDITIONS)

A special rule in effect sunrise to sunset, Monday through Saturday requires pilots to obtain information about special activities operating between R-2914 and R-2915A and B. These activities use varying altitudes but altitudes for VFR flight are always available. Contact Crestview Radio (122.1,123.6,126.7) *or Eglin RAPCON* (119.3) *for information.*

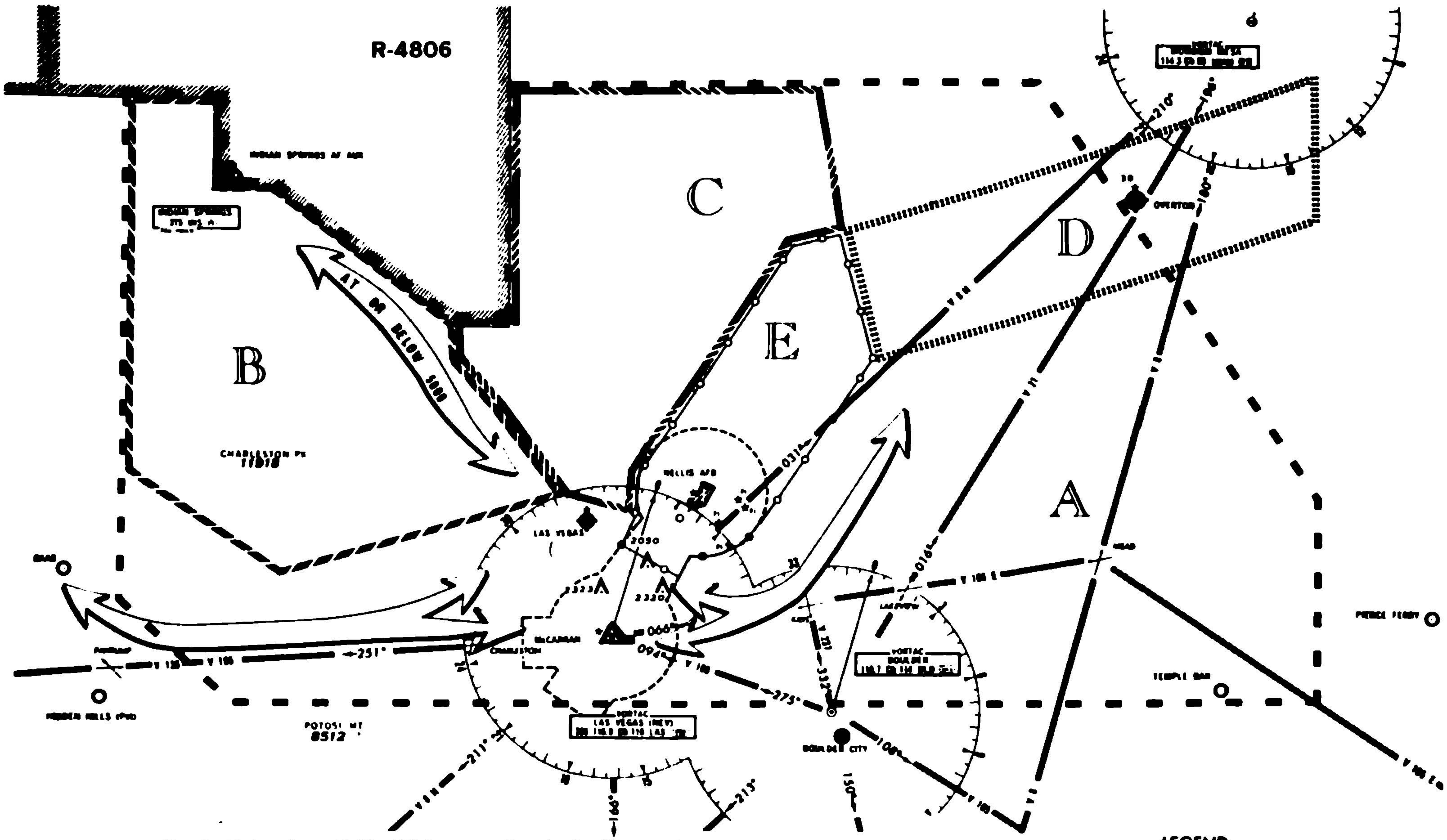

86°45'
86°15'
Caney Creek
Glendale
Munson
CRESTVIEW RADIO
V 115
V 241
Garden City
Liberty
V 22
C-488
Baker
Crestview AAS
Shoal R
CRESTVIEW RBN
30°45'
Milligan
Galliver 30°42'50" 86°38'02"
Crestview
30°43'10" 86°27'37"
Mossy Head
De Funiak Springs
Holt
Tank 369'
Eglin AF No 1
Eglin AF No 3
Tank 345'
Harold
Yellow R
90
Eglin AF No 6
OLF Santa Rosa (Navy)
Tank 322'
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 298'
R-2915A
R-2914
Eglin AF No 7
VALPARAISO RBN
Eglin AF No 10
Niceville
Portland
Freeport
30°30'
AFB
Valparaiso
Holley
Eglin AF No 9
EGLIN RADIO
CHOCTAWHATCHEE BAY
OLF Holly (Navy)
R-2915B
Florosa
98
Ft Walton Beach
Bass
EGLIN RADIO
Fort Walton Beach
Destin
HURLBURT RBN
DESTIN RBN
Point Washington
SANTA ROSA ISLAND
Miramar Beach
Grayton Beach
R-2909
30°20'50" 86°38'50"
30°19'45" 86°23'46"
Seagrove Beach
W-151
W-155
NM
SM
86°15'
30°15'
86°45'
86°30'
30°15'

6 JAN 1966

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

LAS VEGAS TERMINAL AREA NOTICE

LAS VEGAS, NEVADA


R-4806
INDIAN SPRINGS AF AUX
INDIAN SPRINGS
C
B
AT OR BELOW 5000
CHARLESTON PK
11918
E
D
A
OVERTON
MORMON MESA
210°
180°
160°
NELLIS AFB
LAS VEGAS
2050
2323
2320
031°
016°
MEAD
McCARRAN
CHARLESTON
066°
094°
V 135
V 105
251°
275°
332°
V 21
V 8
V 105 E
V 105 E
VORTAC
LAS VEGAS (NEV)
VORTAC
BOULDER
BOULDER CITY
106°
150°
211°
164°
215°
POTOSI MT
8512
HIDDEN HILLS (Pvt)
PIERCE FERRY
TEMPLE BAR

Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. *a. Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   - *Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Mormon Mesa Vortac for flight information.*

   b. Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Las Vegas Air Terminal.

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas.
Altitudes are Mean Sea Level

A ▬ ▬ ▬ FL 230
B ▰▰▰▰▰▰ 5,500 to FL 230
C ▬▬\\\\\\▬▬ Surface to FL 230
D ||||||||||||||||| 8,000 to 9,000
E ○——○——○ Surface to 9,000 inclv.

Recommended itinerant
VFR routes ⇐——⇒

Base And Airspace Compiled From
56th Edition Of Mt Whitney And 61st Edition
Of Los Angeles Sectional Aeronautical Charts

10 | | | | | | | | | | 0 NAUTICAL 10 MILES 20 30 40 50
10 | | | | | | | | | | 0 STATUTE 10 MILES 20 30 40 50

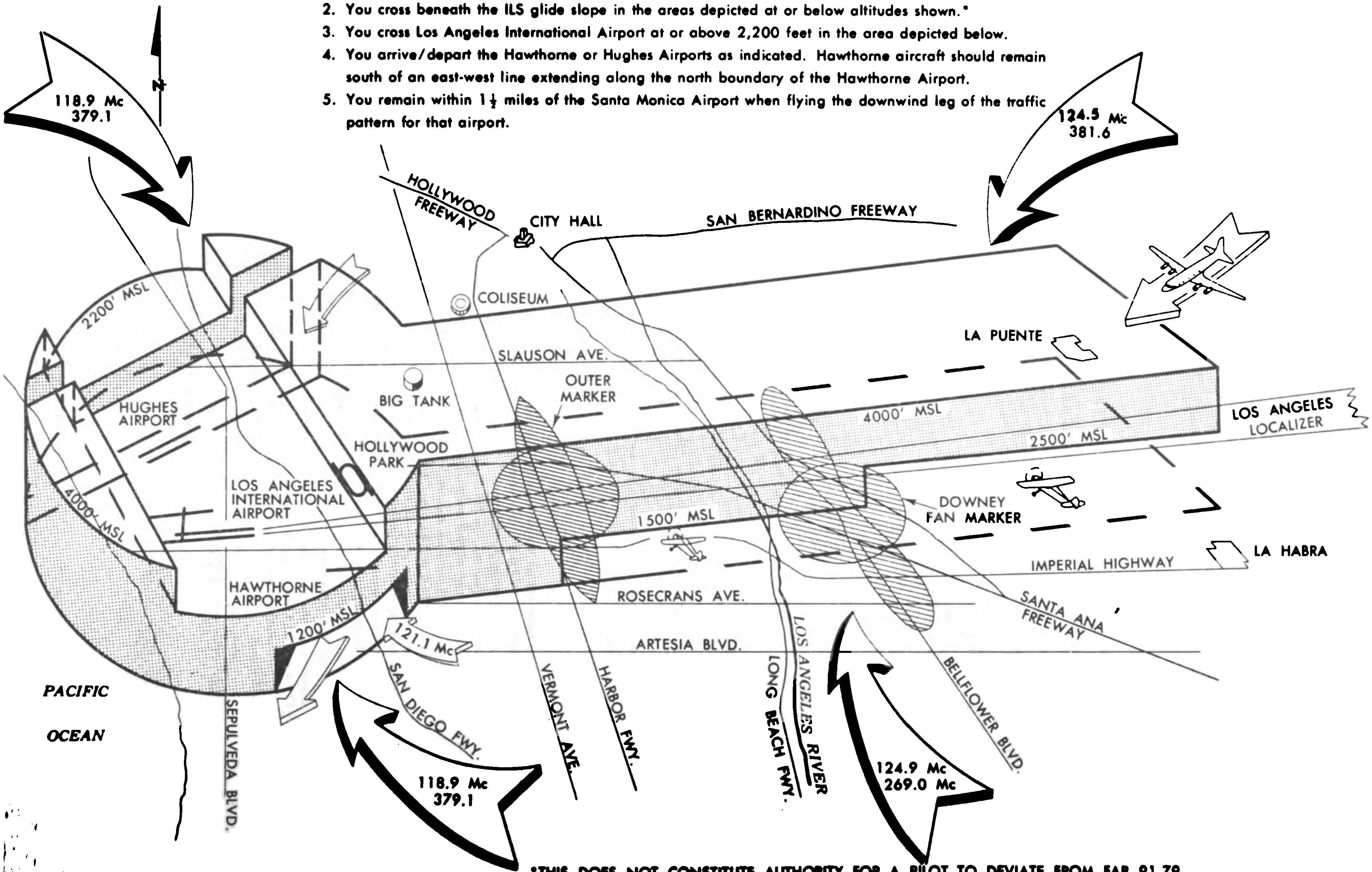
Prepared by
Coast and Geodetic Survey
U S DEPT OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.


118.9 Mc
379.1
N
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
124.5 Mc
381.6
COLISEUM
2200' MSL
SLAUSON AVE.
LA PUENTE
BIG TANK
OUTER MARKER
HUGHES AIRPORT
HOLLYWOOD PARK
4000' MSL
2500' MSL
LOS ANGELES LOCALIZER
LOS ANGELES INTERNATIONAL AIRPORT
4000' MSL
1500' MSL
DOWNEY FAN MARKER
LA HABRA
IMPERIAL HIGHWAY
HAWTHORNE AIRPORT
ROSECRANS AVE.
SANTA ANA FREEWAY
1200' MSL
121.1 Mc
ARTESIA BLVD.
PACIFIC
OCEAN
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LOS ANGELES RIVER
LONG BEACH FWY.
BELLFLOWER BLVD.
SEPULVEDA BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

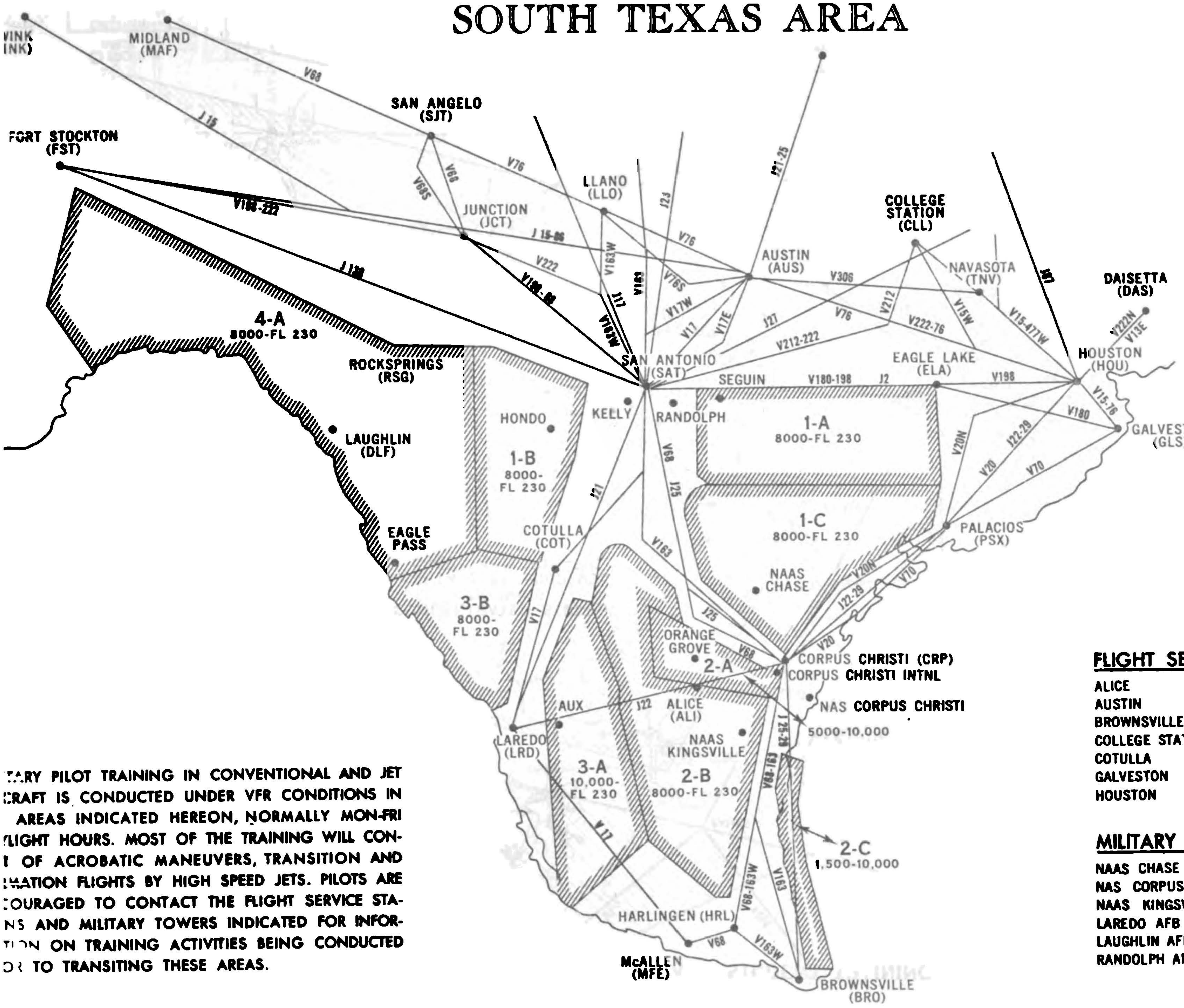
*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

22 JUL 1965

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN
SOUTH TEXAS AREA

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE


WINK (INK)
MIDLAND (MAF)
V68
J15
SAN ANGELO (SJT)
FORT STOCKTON (FST)
V76
V68S
V68
JUNCTION (JCT)
J15-86
V222
V198-222
V198-86
J138
LLANO (LLO)
V163W
J17
V163
V163W
J23
V76
V76S
V17W
V17
V17E
J21-25
AUSTIN (AUS)
V306
J27
V76
V212-222
V212
V222-76
COLLEGE STATION (CLL)
NAVASOTA (TNV)
V15W
V15-477W
J87
DAISETTA (DAS)
V222N
V13E
HOUSTON (HOU)
V15-76
V180
GALVESTON (GLS)
4-A
8000-FL 230
ROCKSPRINGS (RSG)
LAUGHLIN (DLF)
EAGLE PASS
SAN ANTONIO (SAT)
SEGUIN
V180-198
J2
EAGLE LAKE (ELA)
V198
HONDO
KELLY
RANDOLPH
1-B
8000-FL 230
1-A
8000-FL 230
V20N
V20
J22-29
V70
V68
J25
J21
V163
1-C
8000-FL 230
PALACIOS (PSX)
COTULLA (COT)
NAAS CHASE
3-B
8000-FL 230
V17
ORANGE GROVE
2-A
V68
V20
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
5000-10,000
AUX
J22
ALICE (ALI)
LAREDO (LRD)
NAAS KINGSVILLE
3-A
10,000-FL 230
2-B
8000-FL 230
J25-29
V68-163
V17
2-C
1,500-10,000
V163
V68-163W
HARLINGEN (HRL)
V68
V163W
McALLEN (MFE)
BROWNSVILLE (BRO)

ARY PILOT TRAINING IN CONVENTIONAL AND JET
CRAFT IS CONDUCTED UNDER VFR CONDITIONS IN
AREAS INDICATED HEREON, NORMALLY MON-FRI
LIGHT HOURS. MOST OF THE TRAINING WILL CON-
OF ACROBATIC MANEUVERS, TRANSITION AND
MATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE
OURAGED TO CONTACT THE FLIGHT SERVICE STA-
NS AND MILITARY TOWERS INDICATED FOR INFOR-
ON TRAINING ACTIVITIES BEING CONDUCTED
OR TO TRANSITING THESE AREAS.

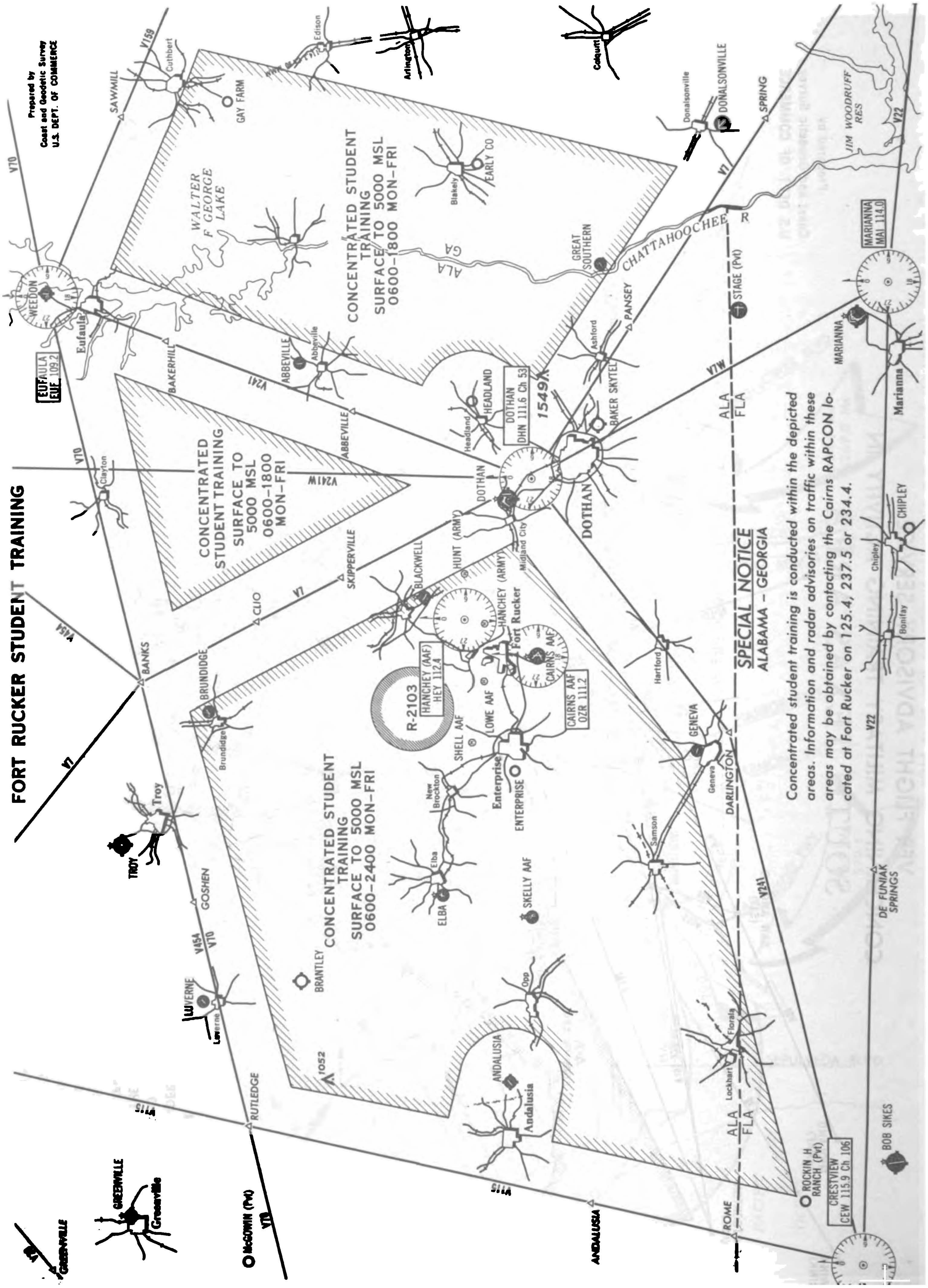
FLIGHT SERVICE STATIONS

ALICE
AUSTIN
BROWNSVILLE C/ST
COLLEGE STATION
COTULLA
GALVESTON
HOUSTON
JUNCTION
McALLEN
MIDLAND
PALACIOS
SAN ANGELO C/ST
SAN ANTONIO
WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	119.9 134.1
LAREDO AFB	122.5R 118.5T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2

FORT RUCKER STUDENT TRAINING

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE


CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-2400 MON-FRI
R-2103
WALTER F GEORGE LAKE
CHATTAHOOCHEE R
ALA GA
ALA FLA
JIM WOODRUFF RES
EUFAULA EUF 109.2
DOTHAN DHN 111.6 Ch 53
HANCHEY (AAF) HEY 112.4
CAIRNS AAF OZR 111.2
MARIANNA MAI 114.0
CRESTVIEW CEW 115.9 Ch 106
V70
V159
V241
V241W
V7
V7W
V454
V115
V22
SAWMILL
BAKERHILL
ABBEVILLE
CLIO
SKIPPERVILLE
BANKS
GOSHEN
RUTLEDGE
ANDALUSIA
ROME
DARLINGTON
PANSEY
SPRING
WEEDON
Eufaula
Cuthbert
GAY FARM
Edison
Arlington
Colquitt
Donalsonville
DONALSONVILLE
Blakely
EARLY CO
GREAT SOUTHERN
Abbeville
Clayton
Headland
HEADLAND
1549
BAKER SKYTEL
Ashford
DOTHAN
Dothan
Midland City
HUNT (ARMY)
HANCHEY (ARMY)
BLACKWELL
Fort Rucker
LOWE AAF
SHELL AAF
Enterprise
ENTERPRISE
New Brockton
Elba
ELBA
SKELLY AAF
BRUNDIDGE
Brundidge
Troy
TROY
LUVERNE
Luverne
BRANTLEY
1052
Opp
ANDALUSIA
Andalusia
Samson
Geneva
GENEVA
Hartford
Florala
Lockhart
ROCKIN H RANCH (Pvt)
STAGE (Pvt)
MARIANNA
Marianna
CHIPLEY
Chipley
Bonifay
DE FUNIAK SPRINGS
BOB SIKES
GREENVILLE
Greenville
McGOWIN (Pvt)

SPECIAL NOTICE

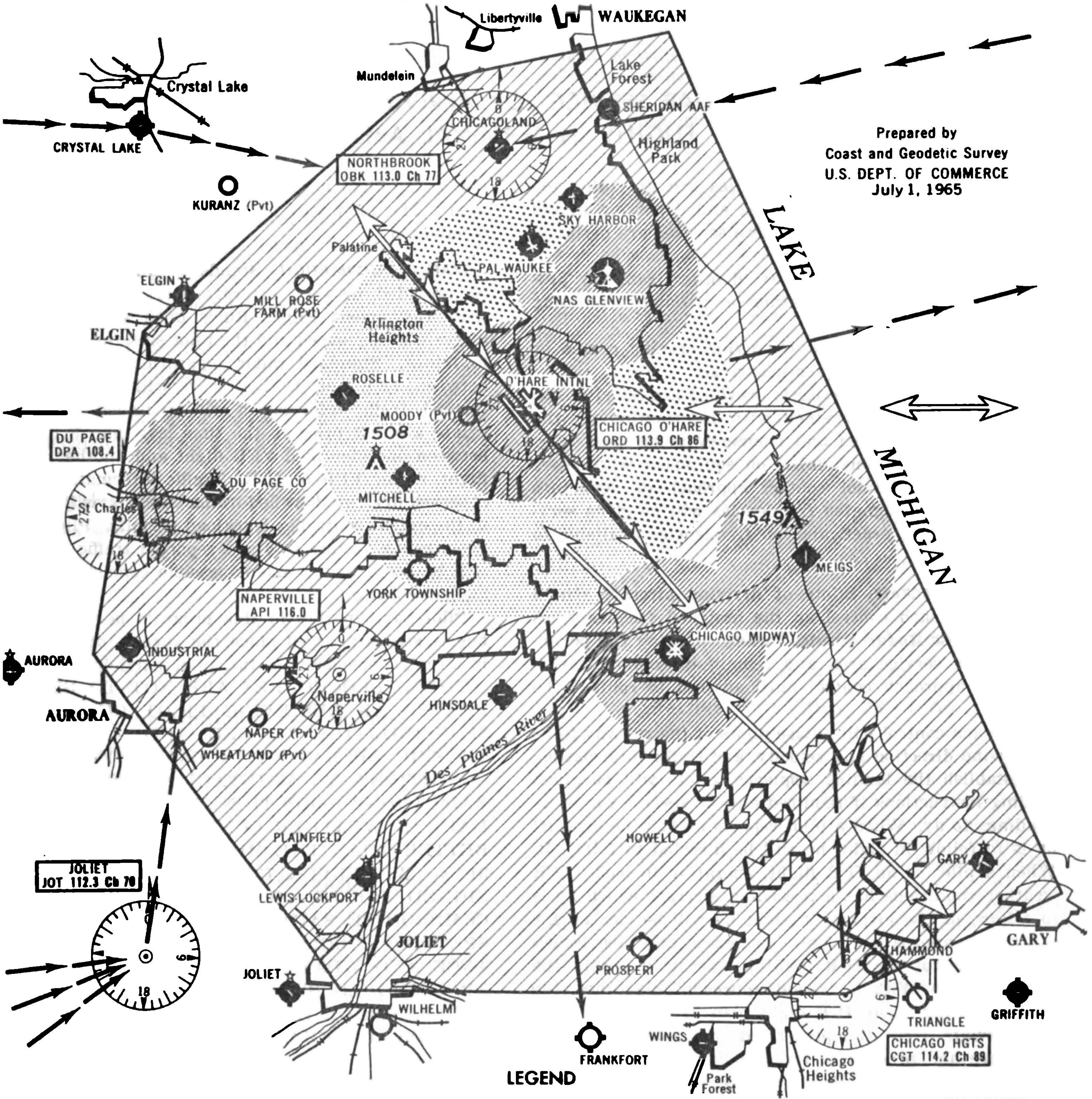
ALABAMA - GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns RAPCON located at Fort Rucker on 125.4, 237.5 or 234.4.

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Mundelein
Crystal Lake
CRYSTAL LAKE
Lake Forest
SHERIDAN AAF
CHICAGOLAND
NORTHBROOK OBK 113.0 Ch 77
Highland Park
KURANZ (Pvt)
SKY HARBOR
Palatine
PAL WAUKEE
NAS GLENVIEW
LAKE
ELGIN
MILL ROSE FARM (Pvt)
ELGIN
Arlington Heights
ROSELLE
O'HARE INTNL
MOODY (Pvt)
1508
CHICAGO O'HARE ORD 113.9 Ch 86
DU PAGE DPA 108.4
DU PAGE CO
St Charles
MITCHELL
MICHIGAN
1549
MEIGS
NAPERVILLE API 116.0
YORK TOWNSHIP
CHICAGO MIDWAY
AURORA
INDUSTRIAL
AURORA
Naperville
HINSDALE
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
GARY
JOLIET JOT 112.3 Ch 70
LEWIS LOCKPORT
JOLIET
GARY
PROSPERI
HAMMOND
JOLIET
WILHELMI
TRIANGLE
GRIFFITH
WINGS
FRANKFORT
CHICAGO HGTS CGT 114.2 Ch 89
Park Forest
Chicago Heights

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

▩ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L

░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▨ AIRPORT TRAFFIC AREA – – CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC ⟶

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

•Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 084° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

•Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. inbound on 282° thru 100° use 119.7 mc. **Departure freq:** 120.4 or 381.4 mc when advised by tower.

•Norfolk Municipal Airport, Virginia

Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 118.9 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting, will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF.

Washington National Airport District of Columbia

Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P–56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 118.3 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information service (WTIS) on 118.3 mc or 306.3 mc.

NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective November 1966.

Alabama

Athens, Magnusson Fld 1E
Bayou La Batre, Roy E. Ray 4NE
Hazel Green, Chess King Airpark 4 W
Jackson Muni 2S
St. Elmo, Sky Ranch 2.5N
Selma, Wiseman 4.5 SW

Arizona

Arizona City 1S
Bouse 0.5E
Tolleson, Moseley Fld 3N

Arkansas

● Berryville, Carroll County 3.5 W
● Booneville Sanatorium 3 E
● Osceola Muni 2 W
Watson, Shilow 7 SE

California

Brentwood, Detla Airpark 5 N
● Desert Center 5 NE
Midland 1 S
Ojar, Henderson Fld 3 SW
Pleasant Grove, Van Dyke 3 N

Colorado

● Gardner, Leavell Cattle Co. 17 NW
Greeley, Easton 7.5SE
Rocky Ford, Mellon Fld 3 SW

Florida

Winter Haven Muni Seaplane Base 3 NNW

Georgia

Asburn, Turner Co. 1 SW
Canon, Franklin Co. 2.5 SW
Jesup, Redlands 5 NW
● Newnan, Newnan-Coweta County 4 S
Patterson, Forestry 2 SE
Sylvester, Worth County 4 NW
Tifton, Eaglehead 6 WSW

Illinois

Baldwin, Redpath 2 E
● Rushville, Flying Club 2.5 NE

Indiana

● Batesville, Hillenbrand Industries 3 NW
Mentone, Manwaring 0.8 NW
● Vevay, Robinson 8 SW

Iowa

Mount Veron, Tonne 4.0 N
Sidney, Knox 3 WSW
Wapello, Brockway Flying B 2.5 NW

Kansas

● Salina Muni 3 SW

Kentucky

Columbia, Ludot 2 SW
● Russellville, Russellville-Logan County 5 SE

Louisiana

Bassler City, Scopena Plantation 10 SE
Belle Rose, Cone Air 1 W
Cottonport Flying Service 0.3 W
Coushatta, Hanna 1 S
Darnell, Boyou Meadows Airstrip 4 NE
Lafayette Heliport 2 SE
Melville, Hanks 1 S
Mer Rouge, Bacon 1 S
Mora, James 4 E
Patterson, Tri Ville Aviation Inc Seaplane Base 1 SE
St. Joseph, Hunter May 4 N
St. Martinville adj NE
● Senath, Reynolds Fld 3.8 SE
Shreveport, Aero Enterprises 7.1 S
Starks 3 S
Tendal 4 B Ranch 2 SE
Transylvania, Batton 3 W

Michigan

Selkirk, Thompson 0.3 SE

Maine

Rangley, Davis Marine Seaplane Base 2 S

Minnesota

● Hallock Muni 1 S

Mississippi

Fort Adams, Kees Ranch 8 N
Lucidale, Farmco Fld 11 S
Monticello, Clay 1 N
Tylertown 2.5 NW

Missouri

Desota 0.5 E
● Lewiston 1.5 SE
● Montgomery City, Pleasant Acres 5 NE

Montana
Anaconda, Mt. Haggins Landing Strip 11.5 SW
Frazer (Fort Peck) Browns Airfield 14 S
Lustre, Wall 6 NE

Nebraska
Oxford 2 W
●Weissert 0.2 SE

Nevada
Coaldale 1 S
Fernley, Southwest Gas Airstrip 3 SE
Pahrump, Hidden Hills 16 SE
Round Mountain, R. O. Ranch 15 N
Wellington, Valley View Arpk 5 NNW

New Jersey
Newton 1.9 S

New Mexico
Loco Hills 0.2 S
●Roy Muni Adj SW

New York
Alexandria Bay, Maxson Fld 1.3 S
Brant Air Service Landing Area 0.9 SW
West Bloomfield Flying Club 1.5 SW

North Dakota
Rutland, Pearson 4.5 N

Ohio
Galloway, Columbus Arpk, Inc. 3 NE of West Jefferson
●Coalgate, Rice 0.5 E of Clarita

Oklahoma
Dustin 2 SE

South Carolina
●Estill Muni 2 S
Union County 2 SW

Tennessee
Cedar Hill, Flying W Ranch 7 S
Spring Hill, Haynes Haven Farm 3 SW

Texas
●Clifton Muni 2 N
Eldorado, Derrick Ranch 21 E
Fort Worth, Oak Grove Heliport 13 S
Graford, Harmar Marina 12 WSW
Grandview, McLeroy Ranch 2 NNW
Honey Grove, Burchinal 2 W
Laredo, Link Ranch 6 S
Martin, Huff Fld 1 SE
Mesquite, Cole 5 SE
Perryton, Harbaugh 22S
Port Lavaca, Calhoun County 4 NW
Sabinal, McCullough Ranch 12 N
●San Marcos Muni 5 E
Vernon, Lockett 6 SW
Zapata, Jennings Ranch 18 NE

Virginia
●Hopewell Seaplane Base 3 E
●Norfolk Heliport Downtown Area
●Oak Grove, Harbor View 1.8 NE

Washington
Enumclaw 1.4 WSW
Stanwood, Strev Air 3 NW

West Virginia
Alderson, Riverside 1 W

Wisconsin
●Park Falls Muni 1 NE

Wyoming
Marshall, Robbins 2 S

Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

Alabama
●Bayou La Batre, Bay View 7 E (c)
Haynesville, Beechwood 5 SW (c)

Arizona
●Somerton, McDanell Fld 3 W (c)
●Stanfield Adj NW (a)

Arkansas
Berryville 1 NW (a)
Gassville, Red Bud Trout Dock 1 S (a)
●Hunstville, Reeves 2 SE (a)
●Stuttgart, Grandgeorge 7 SE (c)

California
Buttonwillow-Kern Co. (a)
Culver City, Hughes (c)

Connecticut
Marlborough-Lesenwski 3 SE (c)

Delaware
Magnolia, Johnson adj W (c)

Florida
Everglades 1 SW (a)
Geneva, Bruce 3 SE (a)
●Orofino, Moose Creek Ranch 59 SE (c)
Samsula, Spruce Creek 3 N (a)

Illinois
Tinley Park, Prosperi 1 W (a)

Kansas
Geneseo, Kratzer 5 NW (a)
●Salina Muni 2 SE (a)

Louisiana
Hackberry adj NW (a)
Harvey Seaplane Base adj S (a)

Montgomery, Hall 1 NW (a)
New Iberia, Dugas 3N (a)
Wisner Airstrip 1 W(c)

Maryland

Baltimore, Rutherford 7 NW (c)
Silesia, Bower Fld 2 N (c)

Michigan

Gaylord, Au Sable Ranch 5 SE (c)

Mississippi

Belzoni Charter Service 1 E(a)
Magnolia, Progress 10 SE(a)

Missouri

St. Joseph, Eastside 1 E(a)

Montana

Gallatin Gateway, Nine Quarter Circle Ranch 32 S (c)
Havre, Davis 10 NE (c)
Lodge Grass, Pope 8 SE (a)
Sand Springs, Kreider Ranch adj S (c)

New York

Albany, Tallent Fld 6.5 SW(a)
Chippewa Bay, Allens Fld 2 NW (a)
Kerhonkson, Piolis Brookside 4 NNW(c)
Lafargeville, Tims Angus Farms 3 E (c)
●Lockport, Cambria 4 NW (c)

North Carolina

Gibsonville, McLean Bros 1 SW(c)

Ohio

Amelia, Sky Hill NE (a)
Caldwell, Myrtle Fld 3 S (a)
Canal Winchester, Anderson 3 SE (c)
Circleville, Elsea 2 N (a)
Cleveland, Burke Lakefront Seaplane Base 1 N (a)
Norwalk, 2N (a)
Tiffin, Circle V Flying Fld 4SW (a)

Oklahoma

Muscogee, Schumacher 3 S(a)

Pennsylvania

Hawley-Greenetown Mountain Bay, Lake Wallenpaupack 6 SW (a)
Mahanoy City, Bedinsky 2 SE (c)

Texas

Arlington, Lucas 3 SW (c)
●Azle, Atwood 3 NW (a)
Cotton Center Starnes 7 S (a)
Palacios, Richman 5 NE (c)
Pecan Gap 1 SW (c)
San Angelo, West Texas Boys Ranch 15 SW (a)
San Antonio, Intl Heliport 7 N (a)
Sanderson 2 W (a)
Sudan Adj S (a)
Valentine 1 NW (a)

Utah

Torrey 1 S (a)

West Virginia

Fairmont Muni 2 SE (a)

Wisconsin

Neenah, Valley Airways 3 SW (c)
●Park Falls, Robbel 1 NW (a)
Plymouth, Carm 2 NW (a)
Sturtevant, Air City (a)

MILITARY AERIAL REFUELING TRACKS

Effective February 7, 1966

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 072/88		FSD 003/67.
		MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 092/77		FSD 346/42.
		MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N. Dak., S. Dak.	FAR 225/42		SAW 242/39.
		SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N. Dak., S. Dak.	ABR 038/37		SAW 219/62.
		SAW 151/64		FAR 137/65.
AR-110 Advance	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
		LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
AR-307 Big Fish	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
AR-308 Blue Cross	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC.
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription on request to the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Md. 20852 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section II-A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B-52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,300' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL; to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

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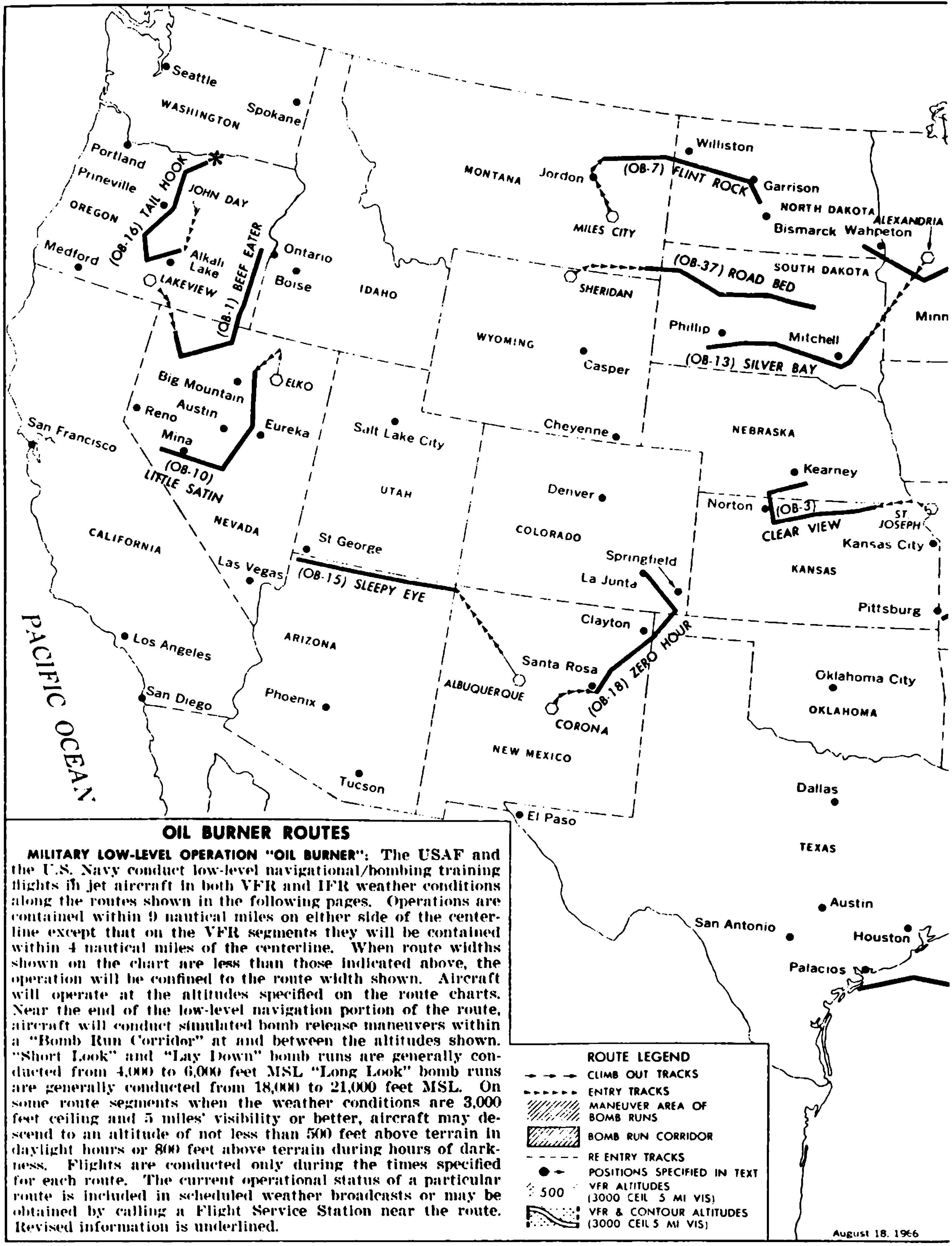
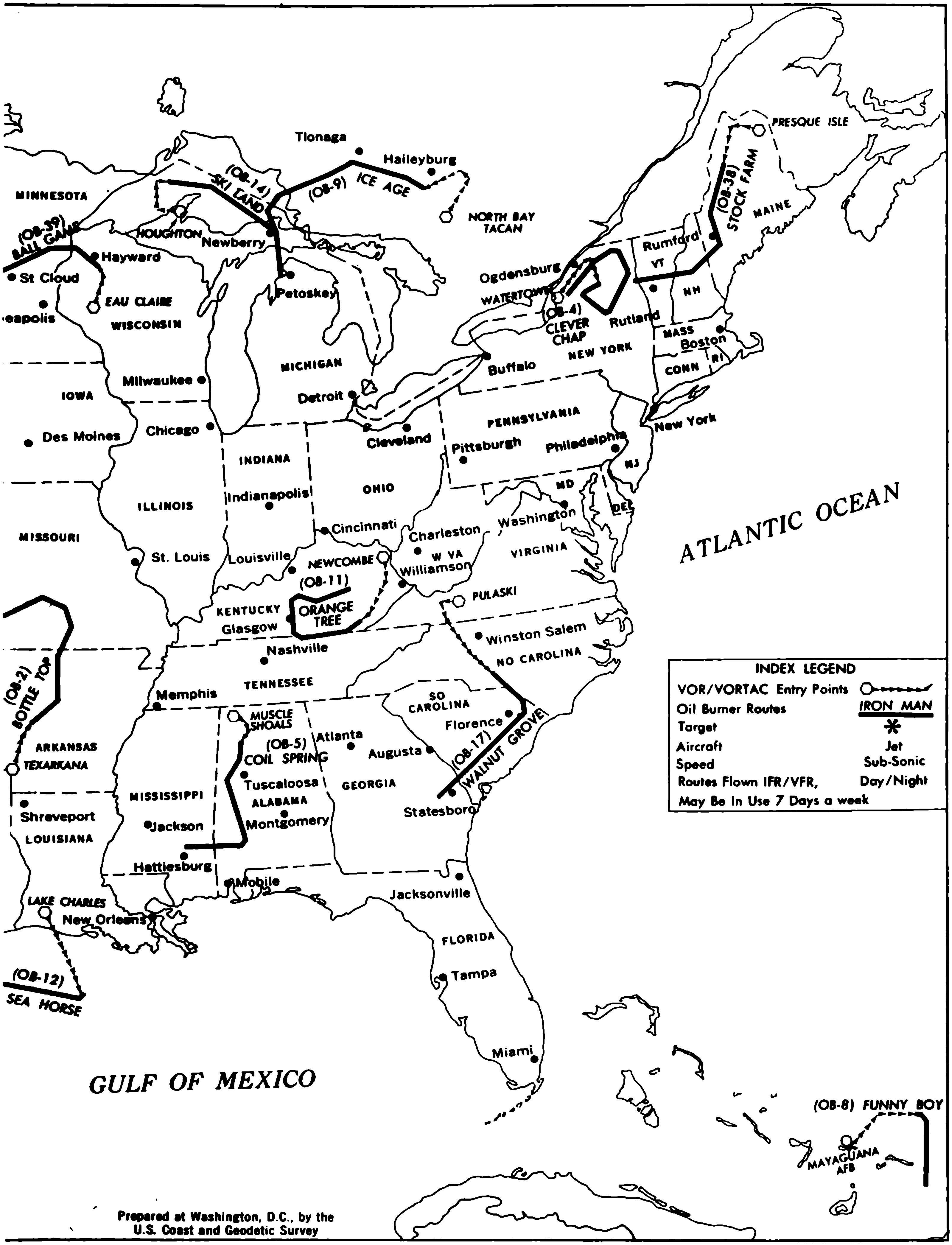
INDEX OF OIL BURNER ROUTES


Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
LAKEVIEW
(OB-1) BEEF EATER
Ontario
Boise
IDAHO
MONTANA
Jordon
MILES CITY
(OB-7) FLINT ROCK
Williston
Garrison
NORTH DAKOTA
Bismarck
Wahpeton
ALEXANDRIA
SOUTH DAKOTA
(OB-37) ROAD BED
SHERIDAN
WYOMING
Casper
Phillip
Mitchell
(OB-13) SILVER BAY
Minn
Big Mountain
Austin
Reno
Mina
ELKO
Eureka
(OB-10) LITTLE SATIN
NEVADA
San Francisco
CALIFORNIA
Salt Lake City
UTAH
Cheyenne
NEBRASKA
Kearney
Denver
COLORADO
Norton
(OB-3) CLEAR VIEW
ST JOSEPH
Kansas City
KANSAS
Pittsburg
St George
Las Vegas
(OB-15) SLEEPY EYE
Springfield
La Junta
Clayton
(OB-18) ZERO HOUR
ARIZONA
Santa Rosa
ALBUQUERQUE
CORONA
Oklahoma City
OKLAHOMA
Los Angeles
San Diego
Phoenix
NEW MEXICO
Tucson
El Paso
Dallas
TEXAS
Austin
San Antonio
Houston
Palacios
PACIFIC OCEAN
ROUTE LEGEND
CLIMB OUT TRACKS
ENTRY TRACKS
MANEUVER AREA OF BOMB RUNS
BOMB RUN CORRIDOR
RE ENTRY TRACKS
POSITIONS SPECIFIED IN TEXT
500 VFR ALTITUDES (3000 CEIL 5 MI VIS)
VFR & CONTOUR ALTITUDES (3000 CEIL 5 MI VIS)
August 18, 1966

OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL. "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

INDEX OF OIL BURNER ROUTES


Tionaga
Haileybury
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
MINNESOTA
(OB-39) BALL GAME
HOUGHTON
Newberry
Hayward
St Cloud
EAU CLAIRE
eapolis
WISCONSIN
Petoskey
MICHIGAN
Milwaukee
IOWA
Detroit
Des Moines
Chicago
Cleveland
INDIANA
Indianapolis
OHIO
ILLINOIS
MISSOURI
Cincinnati
St. Louis
Louisville
NEWCOMBE
(OB-11)
ORANGE TREE
KENTUCKY
Glasgow
Charleston
W VA
Williamson
Washington
VIRGINIA
PULASKI
Winston Salem
NO CAROLINA
Nashville
TENNESSEE
Memphis
(OB-2) BOTTLE TOP
ARKANSAS
TEXARKANA
MUSCLE SHOALS
(OB-5) COIL SPRING
Tuscaloosa
ALABAMA
Atlanta
Augusta
GEORGIA
SO CAROLINA
Florence
(OB-17) WALNUT GROVE
Statesboro
MISSISSIPPI
Jackson
Montgomery
Shreveport
LOUISIANA
Hattiesburg
Mobile
Jacksonville
LAKE CHARLES
New Orleans
(OB-12) SEA HORSE
FLORIDA
Tampa
Miami
GULF OF MEXICO
PRESQUE ISLE
(OB-38) STOCK FARM
MAINE
Rumford
VT
NH
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
Rutland
NEW YORK
MASS
Boston
RI
CONN
Buffalo
PENNSYLVANIA
Pittsburgh
Philadelphia
New York
NJ
MD
DEL
ATLANTIC OCEAN
INDEX LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes — IRON MAN
Target — *
Aircraft — Jet
Speed — Sub-Sonic
Routes Flown IFR/VFR, — Day/Night
May Be In Use 7 Days a week
(OB-8) FUNNY BOY
MAYAGUANA AFB

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

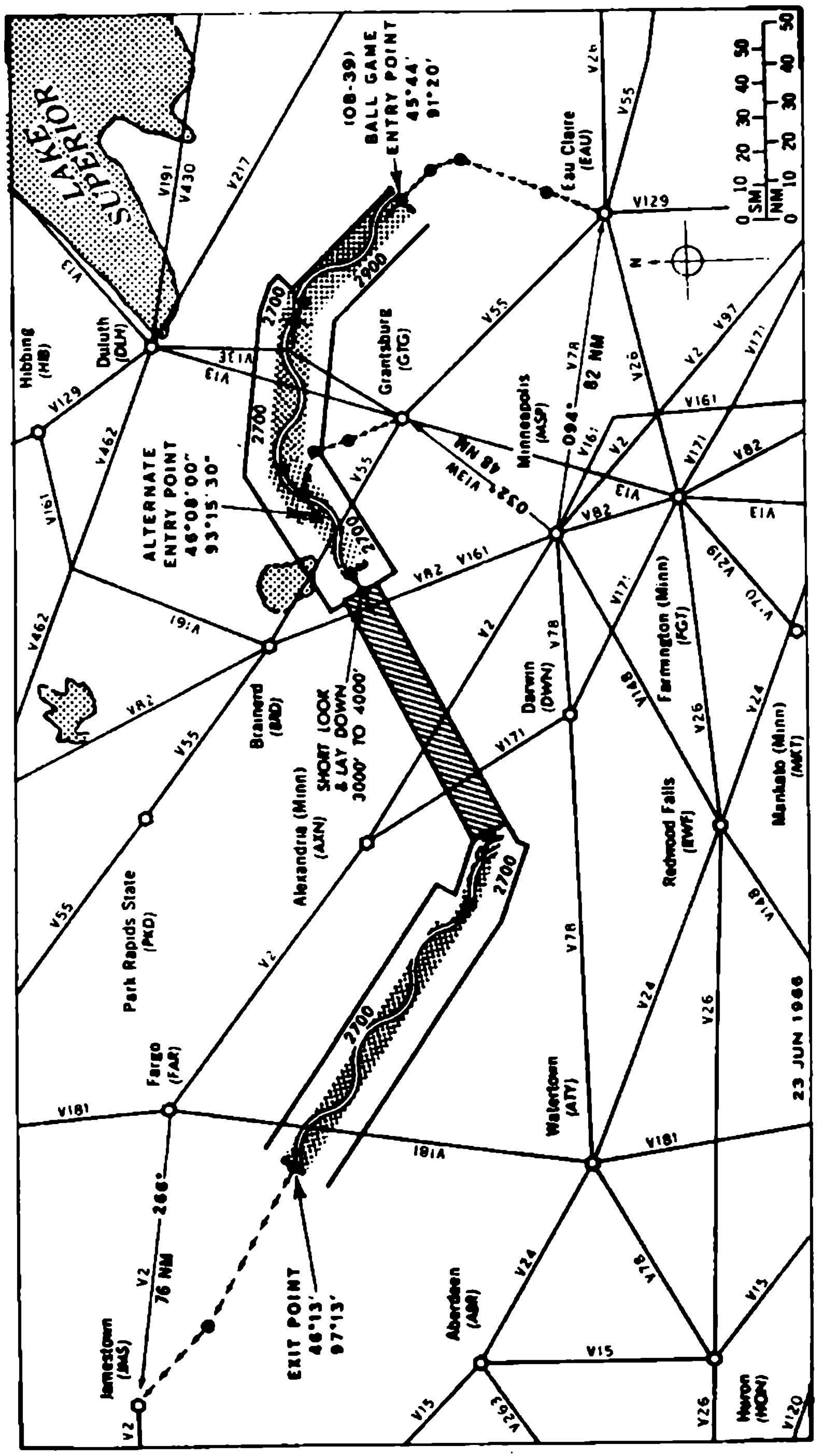
OIL BURNER ROUTES

MINNESOTA/NORTH DAKOTA/SOUTH DAKOTA/ WISCONSIN

BALL GAME OB-39

Effective August 1, 1966 thru December 16, 1966

Aircraft shall cross Minneapolis VORTAC 094/82 DME fix (Eau Claire, Wisc. VOR) at FL 230 or as assigned by ARTCC; then at FL 230 or assigned altitude direct to 45°08'N, 91°20'W; then start descent so as to cross 45°20'N, 91°07'W at or below 11,000' MSL; then turn left descending to 45°37'N, 91°10'W; then continue descent direct so as to cross 45°44'N, 91°20'W, the low level entry point, at 2,900' MSL; then at 2,900' MSL direct 46°10'N, 91°56'W; then turn left descending so as to cross 46°12'N, 92°02'W at 2,700' MSL; then at 2,700' MSL direct to 46°16'30''N, 92°56'W; then at 2,700' MSL direct to 46°00'N, 93°35'30''W then climb so as to cross 45°57'N, 93°42'W at 3,000' MSL.


LAKE SUPERIOR
(OB-39) BALL GAME ENTRY POINT 45°44' 91°20'
Eau Claire (EAU)
Hibbing (HIB)
Duluth (DLH)
Grantsburg (GTG)
Minneapolis (MSP)
V78 82 NM
094°
ALTERNATE ENTRY POINT 46°08'00" 93°15'30"
Brainerd (BRD)
SHORT LOOK & LAY DOWN 3000' TO 4000'
Alexandria (Minn) (AXN)
Park Rapids State (PKD)
Darwin (DWN)
Farmington (Minn) (FGT)
Redwood Falls (RWF)
Mankato (Minn) (MKT)
Fargo (FAR)
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
Jamestown (JMS)
EXIT POINT 46°13' 97°13'
V2 76 NM 266°
2700
2900
0 10 20 30 40 50 SM
0 10 20 30 40 50 NM
23 JUN 1966

Short Look and Lay Down—After passing 45°57'N, 93°-42'W, aircraft shall operate between 3,000' MSL and 4,000' MSL through the bomb run corridor (4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N, 95°-10'W). After exiting the bomb run corridor at 45°25'W, 95°10'W, aircraft shall descend direct so as to cross 45°31'N, 95°36'W at 2,700' MSL; then at 2,700' MSL direct 46°13'N, 97°13'W. After exiting the route at 46°-13'N, 97°13'W, aircraft shall start climb so as to cross 46°39'N, 98°12'W at FL 200 or above; then climb direct so as to cross Fargo, N.D. VORTAC DME 266/76 fix (Jamestown, N.D. VOR) at FL 250.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°44'N, 91°20'W to 46°00'N, 93°-35'30''W and from 45°25'N, 95°10'W to 46°13'N, 97°13' W.

Alternate Entry—Aircraft shall cross the Minneapolis VORTAC 032/48 DME fix (Grantsburg, Wisc. VOR) at FL 230 or as assigned by ARTCC, then descend so as to cross 46°00'N, 92°47'30''W at 17,000' MSL or above; then continue descent direct so as to cross 46°08'N, 92°51'30''W at 13,000' MSL or above; then turn left continuing descent so as to cross 46°12'N, 93°06'W at 7,000' MSL; then continue descent so as to cross 46°08' N, 93°15'30''W at 2,700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM on the northeast side of centerline from 45°44'N, 91°-20'W to 46°10'N, 91°56'W and 4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N 95°10'W and 4 NM on the north side of centerline from 45°25'N, 95°10'W to 45°31'N, 95°36'W. The VFR route width is reduced to 2 NM on the northwest side of centerline from 46°08'N, 93°15'30''W to 46°00'N, 93°35'30''W and to 2 NM on the north side of centerline from 45°25'N, 95°10'W to 45°35'N, 95°45'W and to 2 NM on the south side of centerline from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Hours of Operation—24 hours daily, 7 days a week.

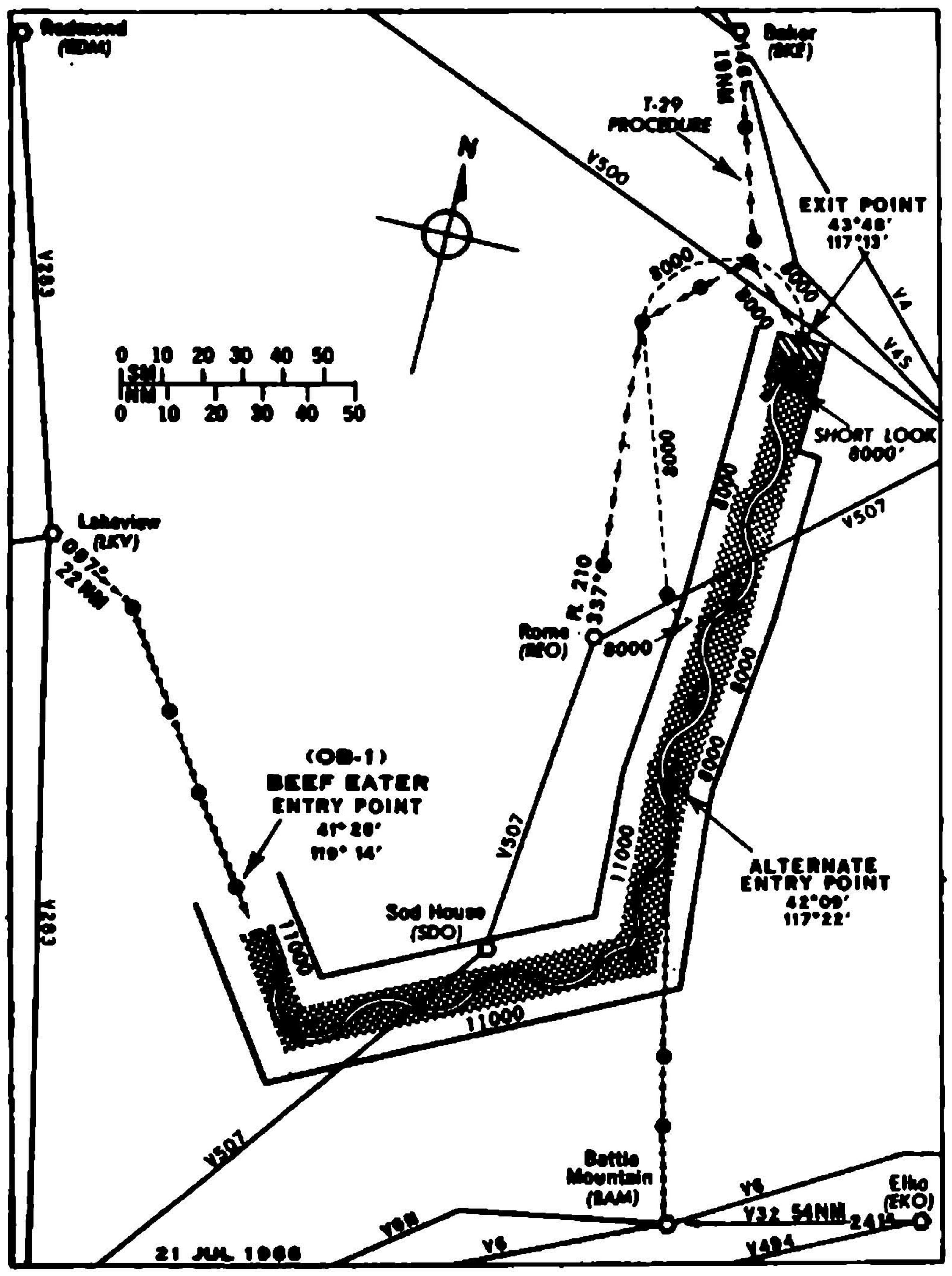
NEVADA/OREGON

BEEF EATER OB-1

Revised Effective June 19, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°-

20'N, 120°04'W); then descend direct to cross 42°00'N, 119°45'W at or below FL 230; then descend direct so as to cross 41°44'N, 119°31'W at or above 16,000' MSL; then descend direct so as to cross the entry point of the low level route at 41°28'N, 119°14'W at 11,000' MSL; then at 11,000' MSL direct to 40°58'N, 118°49'W, then 11,000' MSL direct 41°31'N, 117°20'W, 11,000' MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40' N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 210, then maintain FL 210 via the Rome, Oregon 337 radial to the Rome, Oregon VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°17'N, 119°06'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W then descend direct so as to cross 41°10'N, 117°05'W at or above 12,000' MSL; then descend direct so as to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 3 NM on the west side of centerline from 41°17'N, 119°06'W to 40°58'N, 118°49'W and to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T-29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°38'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

BOTTLE TOP OB-2

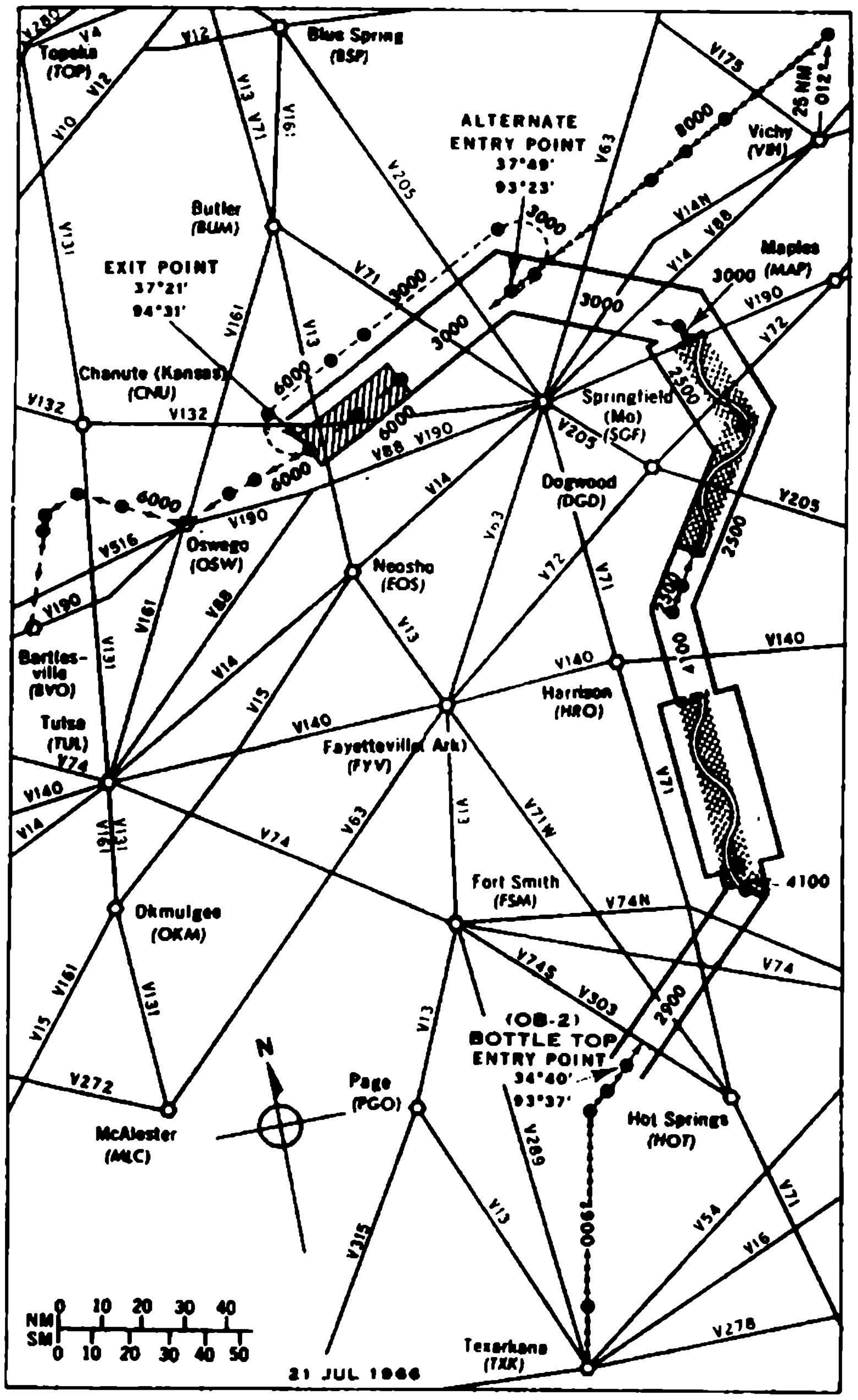
Revised Effective April 24, 1966

Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°31'W, maintain 6000' MSL, turn right to 37°32'N, 94°41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30''N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate


Topeka (TOP)
Blue Springs (BSP)
ALTERNATE ENTRY POINT 37°49' 93°23'
Vichy (VIH)
25 NM 012°
8000
Butler (BUM)
EXIT POINT 37°21' 94°31'
Maples (MAP)
3000
Chanute (Kansas) (CNU)
Springfield (Mo) (SGF)
6000
4000
Oswego (OSW)
Dogwood (DGD)
Neosho (FOS)
Bartlesville (BVO)
Tulsa (TUL)
Harrison (HRO)
Fayetteville (Ark) (FYV)
Fort Smith (FSM)
4100
Okmulgee (OKM)
(OB-2) BOTTLE TOP ENTRY POINT 34°40' 93°37'
McAlester (MLC)
Page (PGO)
Hot Springs (HOT)
N
NM 0 10 20 30 40
SM 0 10 20 30 40 50
Texarkana (TXK)
21 JUL 1966

VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 35°17′N, 92°51′W to 36°05′N, 92°53′W and from 36°38′N, 92°45′W to 37°30′N, 92°34′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000′ MSL or as assigned by ARTCC. Descend direct so as to cross 38°19′N, 92°08′W at 8000′ MSL; then at 8000′ MSL direct to 38°13′N, 92°22′W; then descend so as to cross 38°08′N, 92°34″W at 4000′ MSL; then continue descent so as to cross 37°49′N, 93°23′W at 3000′ MSL. Thence via published route.

Route Width—The IFR route width from 34°40′N, 93°37′W to 35°21′N, 92°51′W and from 36°05′N, 92°53′W to 37°06′N, 92°23′W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33′N, 92°35′W to 37°21′N, 94°31′W. The VFR route width from 35°21′N, 92°51′W to 36°05′N, 92°53′W and from 36°38′N, 92°45′W to 37°06′N, 92°23′W is reduced to 2 NM on the east side of centerline.

Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

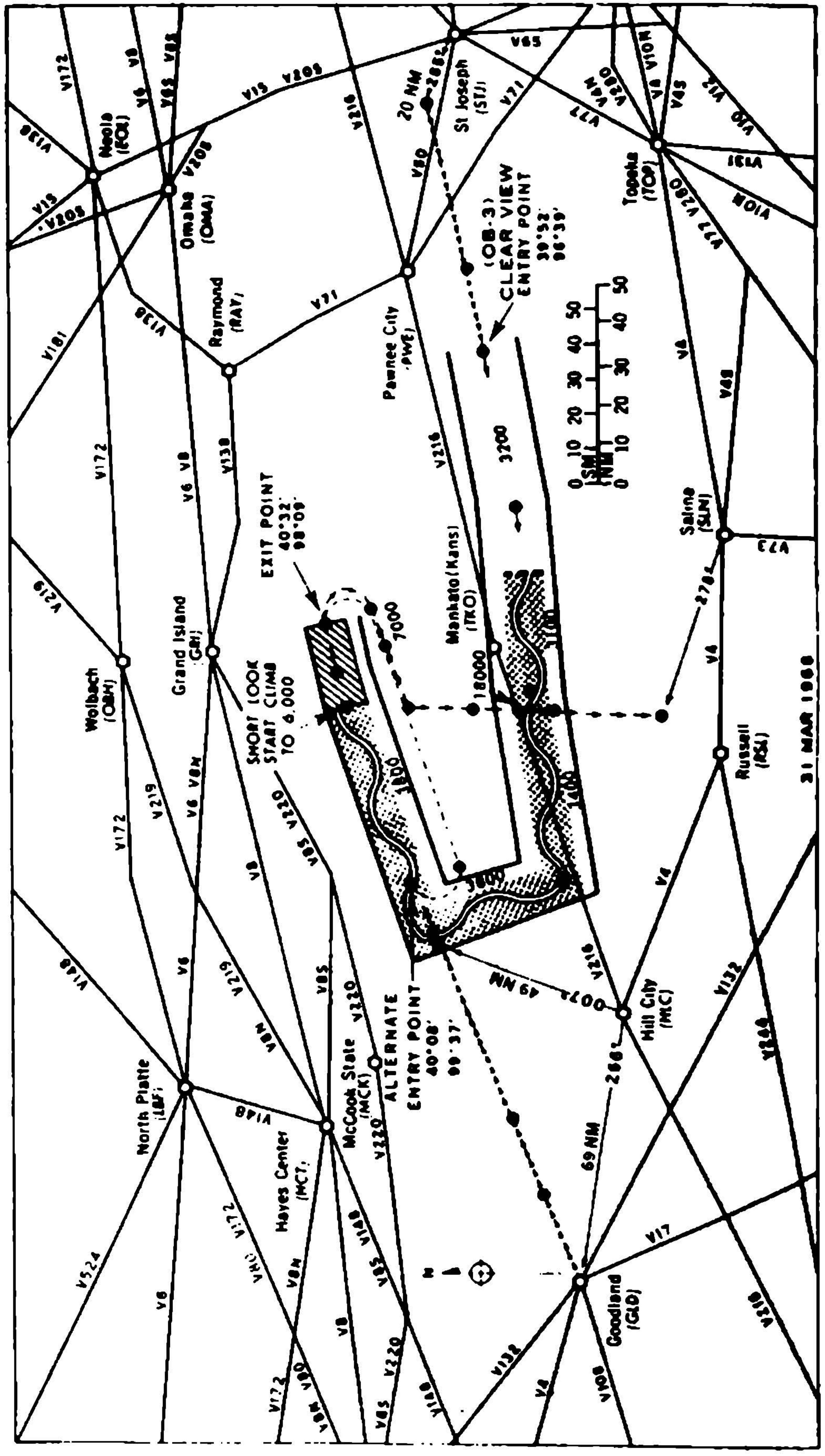
KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB-3

Revised Effective March 27, 1966

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56′N, 96°12′W crossing this point at 9000′ MSL, descend to 3200′ MSL direct to the route entry point at 39°52′N, 96°39′W, maintain 3200′ MSL direct 39°43′N, 97°30′W, descend to 3100′ MSL direct 39°40′N, 98°30′W, climb to 3400′ MSL direct 39°31′N, 99°34′W, climb to 3800′ MSL direct 40°03′N, 99°50′W maintain 3800′ MSL direct 40°26′N, 98°37′W.

Short Look—After passing 40°26′N, 98°37′W, proceed direct to 40°29′N, 98°27′W climbing so as to cross this


St Joseph (STJ)
20 NM 285°
Topeka (TOP)
Nebraska City
Omaha (OMA)
Raymond (RAY)
Pawnee City (PWE)
(OB-3) CLEAR VIEW ENTRY POINT 39°52' 96°39'
NM 0 10 20 30 40 50
SM 0 10 20 30 40 50
3200
Mankato (Kans) (TKO)
EXIT POINT 40°32' 98°09'
Salina (SLN)
Grand Island (GRI)
SHORT LOOK START CLIMB TO 6,000
7000
18000
Wolbach (OBH)
Russell (RSL)
21 MAR 1966
ALTERNATE ENTRY POINT 40°08' 99°37'
Hill City (HLC)
North Platte (LBF)
McCook State (MCK)
Hayes Center (HCT)
69 NM
Goodland (GLD)
N

point at 6000′ MSL; maintain 6000′ MSL through the bomb run corridor (4 NM either side centerline from 40°26′N, 98°37′W to 40°32′N, 98°09′W); after exiting the route at 40°32′N, 98°09′W, turn right climbing to

cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.

Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

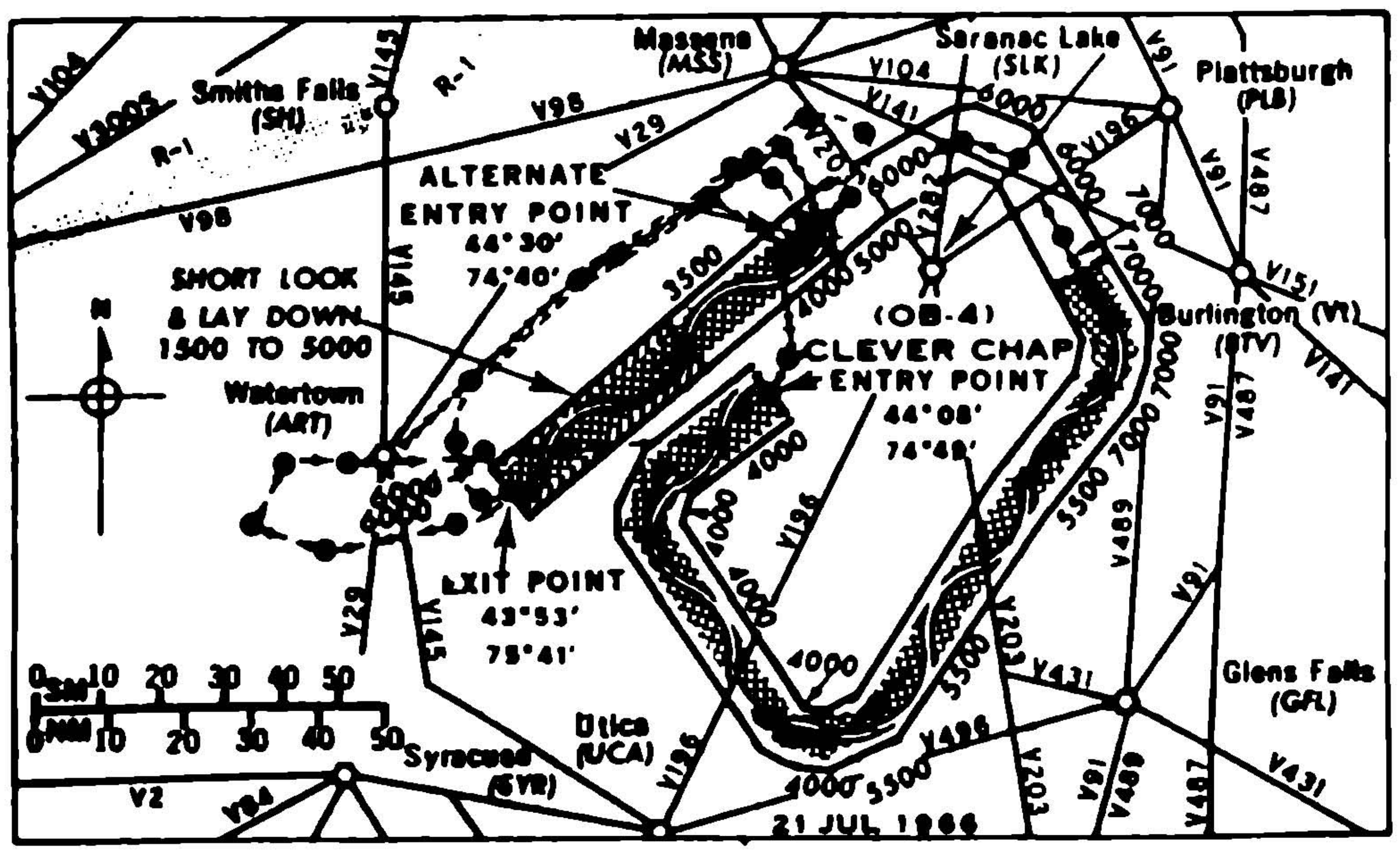
Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

CLEVER CHAP OB–4

Revised Effective February 27, 1966

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below: cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13'N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17'N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W: climb to cross 43°59'N, 73°51'W at 7,000 feet MSL: maintain 7,000 feet MSL direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL; cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.



Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43'N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230: continue descent to cross 44°24'N, 75°26'W at FL 180: cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48'N, 75°12'W to 44°16'N, 73°39'W 2 NM either side of center line.

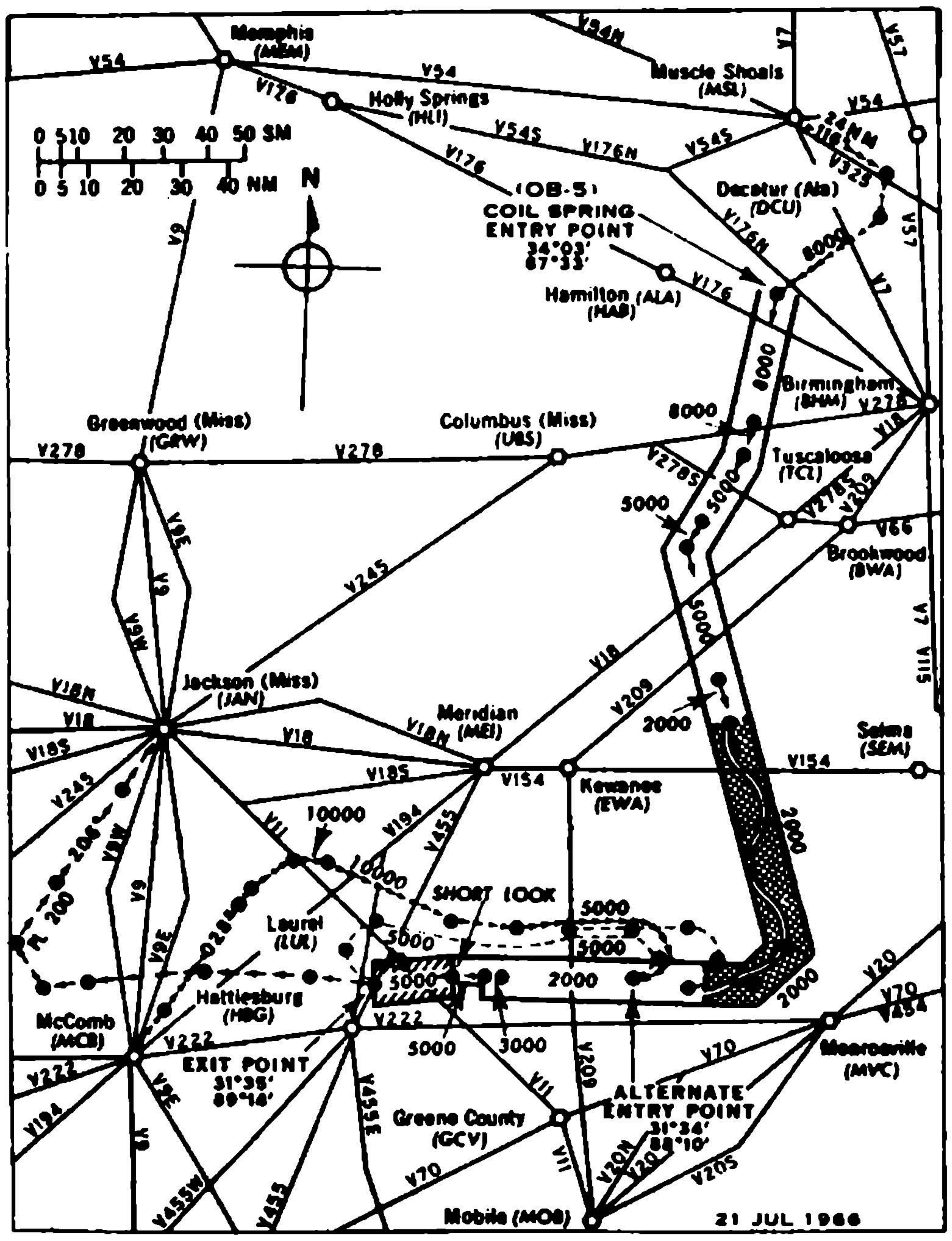
Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB-5

Revised Effective January 6, 1966

Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000′ MSL; turn right, descend to cross 34°19′N, 87°06′W at 8000′ MSL, maintain 8000′ MSL direct to the route entry point at 34°03′N, 87°33′W, direct 33°-35′N, 87°38′W, direct 33°28′N, 87°42′W; descend direct to cross 33°15′N, 87°52′W at 5000′ MSL, maintain 5000′ MSL direct 33°10′N, 87°56′W, direct 32°40′N, 87°48′W; descend to cross 32°31′N, 87°45′W at 2000′ MSL, maintain 2000′ MSL direct 31°41′N, 87°31′W, turn right to 31°33′N, 87°40′W, maintain 2000′ MSL direct 31°36′N, 88°42′W; climb direct to cross 31°36′N, 88°46′W at 3000′ MSL, direct to cross 31°36′N, 88°54′30″W at 5000′ MSL. In addition to the above, aircraft may climb to 3000′ MSL after 31°33′N, 87°40′W and maintain 3000′ MSL to 31°36′N, 88°54′30″ during the hours 0600Z-1200Z.


Memphis (MEM)
Holly Springs (HLI)
Muscle Shoals (MSL)
24 NM
116°
Decatur (Ala) (DCU)
(OB-5) COIL SPRING ENTRY POINT 34°03′ 87°33′
Hamilton (ALA) (HAB)
0 5 10 20 30 40 50 SM
0 5 10 20 30 40 NM
N
Greenwood (Miss) (GRW)
Columbus (Miss) (UBS)
Birmingham (BHM)
Tuscaloosa (TCL)
Brookwood (BWA)
Jackson (Miss) (JAN)
Meridian (MEI)
Selma (SEM)
Kewanee (EWA)
Laurel (LUL)
Hattiesburg (HBG)
McComb (MCB)
EXIT POINT 31°35′ 89°14′
SHORT LOOK
Greene County (GCV)
ALTERNATE ENTRY POINT 31°34′ 88°10′
Monroeville (MVC)
Mobile (MOB)
FL 200
206°
028°
10000
8000
5000
3000
2000
V54
V176
V54S
V176N
V278
V245
V18
V18N
V18S
V9
V9E
V9W
V11
V194
V455
V455E
V455W
V154
V222
V70
V20
V20N
V20S
V209
V7
V57
V115
V323
V66

21 JUL 1966

Short Look—After passing 31°36′N, 88°54′30″W aircraft shall operate through the bomb run corridor at 5000′ MSL. In addition, aircraft may operate through the bomb run corridor at 3000′ MSL during the hours 0600Z-1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36′N, 88°54′30″W to 31°35′N, 89°14′ W.) After exiting the route at 31°35′N, 89°14′W, aircraft shall cross 31°36′N, 89°30′W at 5000′ MSL; start climb direct to cross 31°37′N, 89°56′W at 14,000′ MSL (reporting point), maintain 14,000′ MSL direct 31°33′N, 90°25′W; start climb direct 31°32′N, 90°36′W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42′N, 90°44′W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55′N, 90°35′W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35′N, 89°14′W, turn right, cross 31°42′N, 89°22′W at 5000′ MSL, maintain 5000′ MSL, turn right to 31°49′N, 89°-14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W; turn right, cross 31°40′N, 88°03′W at 3000′ MSL; continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route. Aircraft may proceed at 5000′ MSL from 31°48′N, 88°27′W; direct 31°48′N, 87°57′W; turn right descend to cross 31°41′N, 87°49′W at 3000′ MSL; continue turn to cross 31°34′N, 87°57′W at 2000′ MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 32°31′N, 87°45′W to 31°33′N, 87°52′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18′15″N, 90°15′29″W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000′ MSL; cross 45 NM fix at 14,000′ MSL; turn right, cross 32°01′N, 89°35′W at 10,000′ MSL, maintain 10,000′ MSL, turn right, 32°01′N, 89°27′W, direct 31°49′N, 88°55′W; descend direct, cross 31°48′N, 88°39′W at 6000′ MSL; direct, cross 31°48′N, 88°27′W at 5000′ MSL, maintain 5000′ MSL direct 31°48′N, 88°10′W; turn right cross 31°40′N, 88°03′W at 3000′ MSL continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36′N, 88°46′W to 31°36′N, 88°54′30″W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

FLINT ROCK OB-7

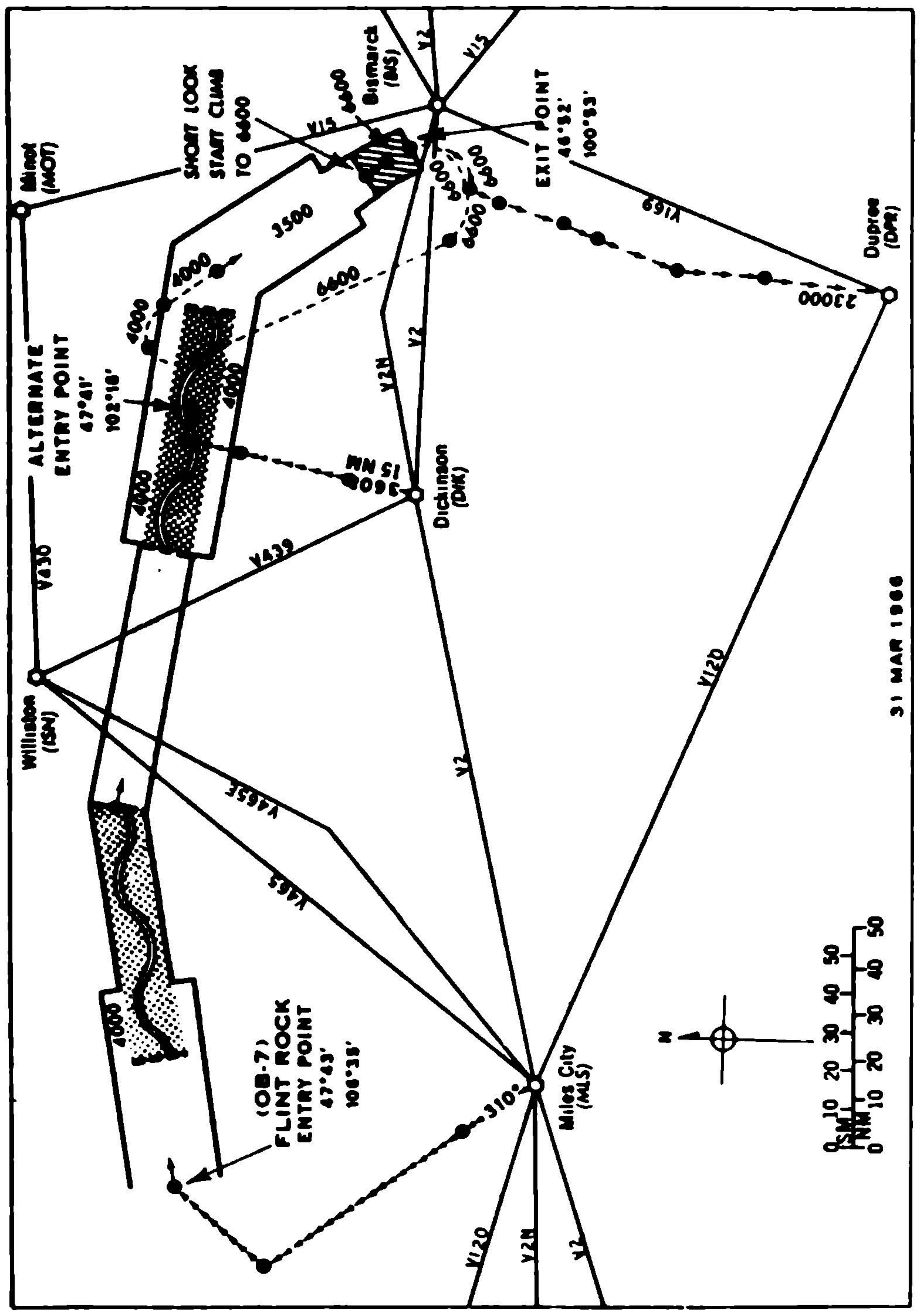
Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40′N, 106°14′W; then descend to cross 47°24′N, 107°00′W at or above 6000′ MSL; then continue descent so as to cross the route entry point, 47°43′N, 106°35′W, at 4000′ MSL; then at 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MSL direct 47°35′N, 101°31′W; then descend to 3500′ MSL direct 47°02′N, 101°02′W.

Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 4 NM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53′W); then maintaining 6600′ MSL turn right direct 46°39′N, 101°07′W; then start climb to FL 230 direct to 45°53′N, 101°35′W; direct to Dupree VORTAC, climbing so as to cross 46°30′N, 101°12′30″W at or above 8,000′ MSL; crossing 46°19′N, 101°19′W at or above

11,000' MSL; crossing 46°13'N, 101°23'W at or below FL 190; crossing 45°53'N, 101°35'W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52'N, 100°53'W maintain 6600' MSL direct 46°39'N, 101°07'W; then at 6600' MSL make a right turn direct to 46°43'N, 101°24'W; then at 6600' MSL direct 47°40'N, 102°00'W the descending so as to cross 47°50'N, 101°56'W at 4000' MSL; then continue turn direct 47°47'N, 101°42'W; then direct at 4000' MSL to 47°35'N, 101°31'W, thence via the published route.


Minot (MOT)
SHORT LOOK START CLIMB TO 6400
Bismarck (BIS)
V2
V15
EXIT POINT 46°52' 100°53'
Dupree (DPR)
23000
6400
3500
4000
ALTERNATE ENTRY POINT 47°41' 102°18'
NM 15 DIK 360
Dickinson (DIK)
V2N
V430
V439
Williston (ISN)
V120
31 MAR 1966
(OB-7) FLINT ROCK ENTRY POINT 47°43' 106°28'
Miles City (MLS)
310°
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 47°48'N, 105°53'W to 47°57'N, 104°30'W and from 47°47'N, 103°03'W to 47°37'N, 101°45'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000' MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000' MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31'N, 102°32'W at 8,000' MSL; then descend direct so as to cross 47°42'30''N, 102°27'W at 6,000' MSL; then a descending right turn so as to cross 47°41'N, 102°18'W at 4000' MSL, thence via the published route.

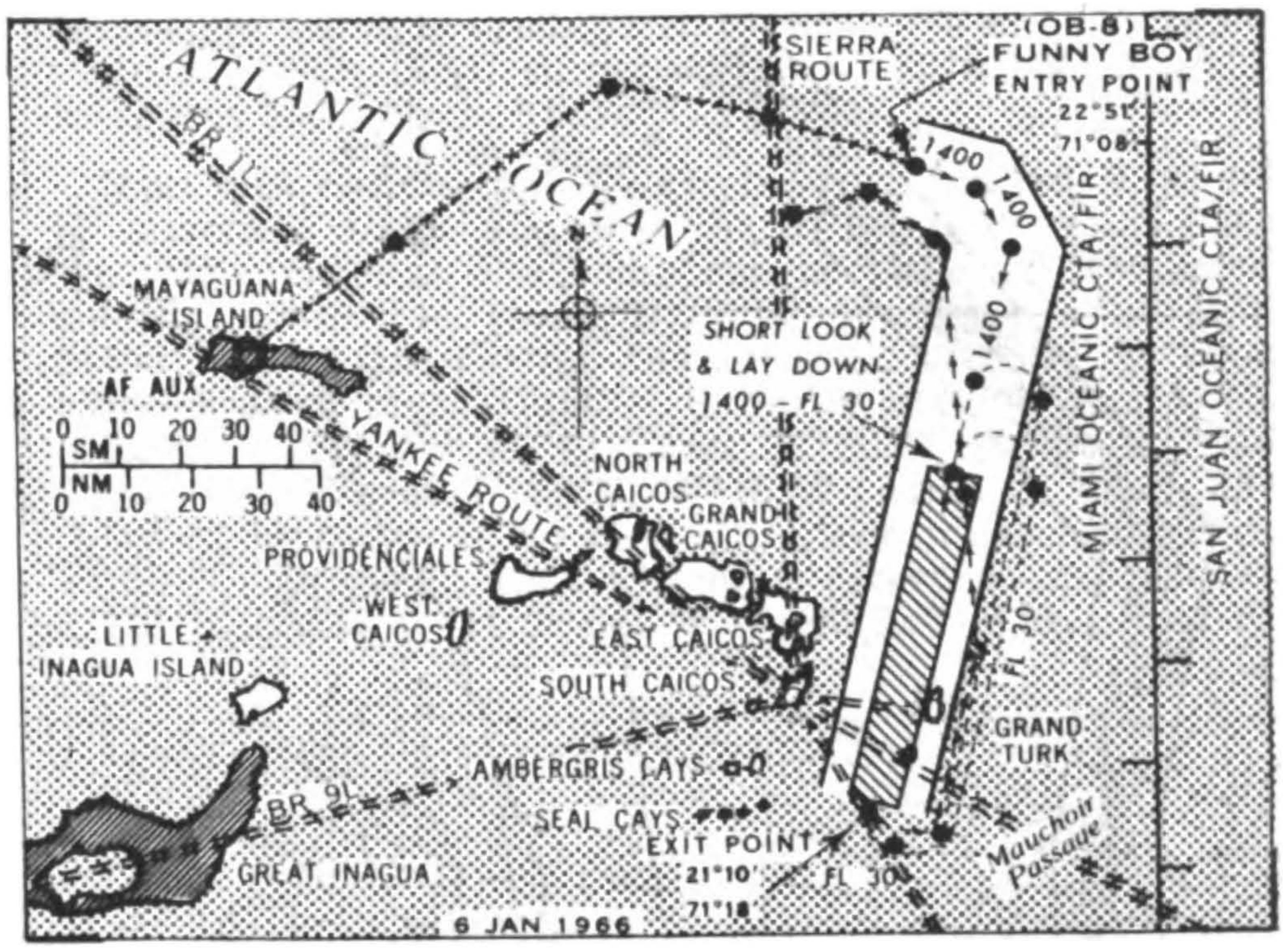
Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50'N, 105°30'W to 47°47'N, 103°03'W and from 47°07'N, 101°06'W to 46°52'N, 100°53'W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY OB-8

Revised Effective February 6, 1966

Aircraft shall cross 22°23'N, 73°02'W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41'N, 72°35'W (reporting point); start descent, cross 23°05'N, 72°00'W at FL 150; right turn, cross 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 71°08'W at 1400' MSL (the route entry point); maintain 1400' MSL direct 22°48'N, 70°58'W; turn right to 22°39'N, 70°53'W; direct 22°04'N, 71°03'W.


ATLANTIC OCEAN
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°51' 71°08'
1400
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR
MAYAGUANA ISLAND
AF AUX
SHORT LOOK & LAY DOWN 1400 - FL 30
SM 0 10 20 30 40
NM 0 10 20 30 40
YANKEE ROUTE
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
EAST CAICOS
SOUTH CAICOS
LITTLE INAGUA ISLAND
GRAND TURK
AMBERGRIS CAYS
SEAL CAYS
BR 91
EXIT POINT 21°10' 71°18'
FL 30
Mouchoir Passage
GREAT INAGUA
6 JAN 1966

Short Look and Lay Down—After passing 22°04'N, 71°03'W, aircraft shall maintain between 1400' and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04'N, 71°03'W to 21°10'N, 71°18'W). After exiting the route at 21°10'N, 71°18'W, aircraft shall turn left, cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W, direct 21°35'N, 71°00'W; start climb, cross 22°00'N, 71°02'W at FL 110 or above cross 22°40'N, 71°06'W at FL 250 or above; left turn to 22°48'N, 71°16'W; cross 22°45'N, 71°30'W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10'N, 71°18'W, turn left cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W; direct 22°01'N, 70°53'W; turn left descend to cross 22°04'N, 71°03'W at 1400'; thence via the published route. Aircraft may proceed at FL 30 from 21°06'N, 71°08'W; direct 22°14'N, 70°49'W; turn left descend to cross 22°17'N, 70°59'W at 1400'; thence via the published route.

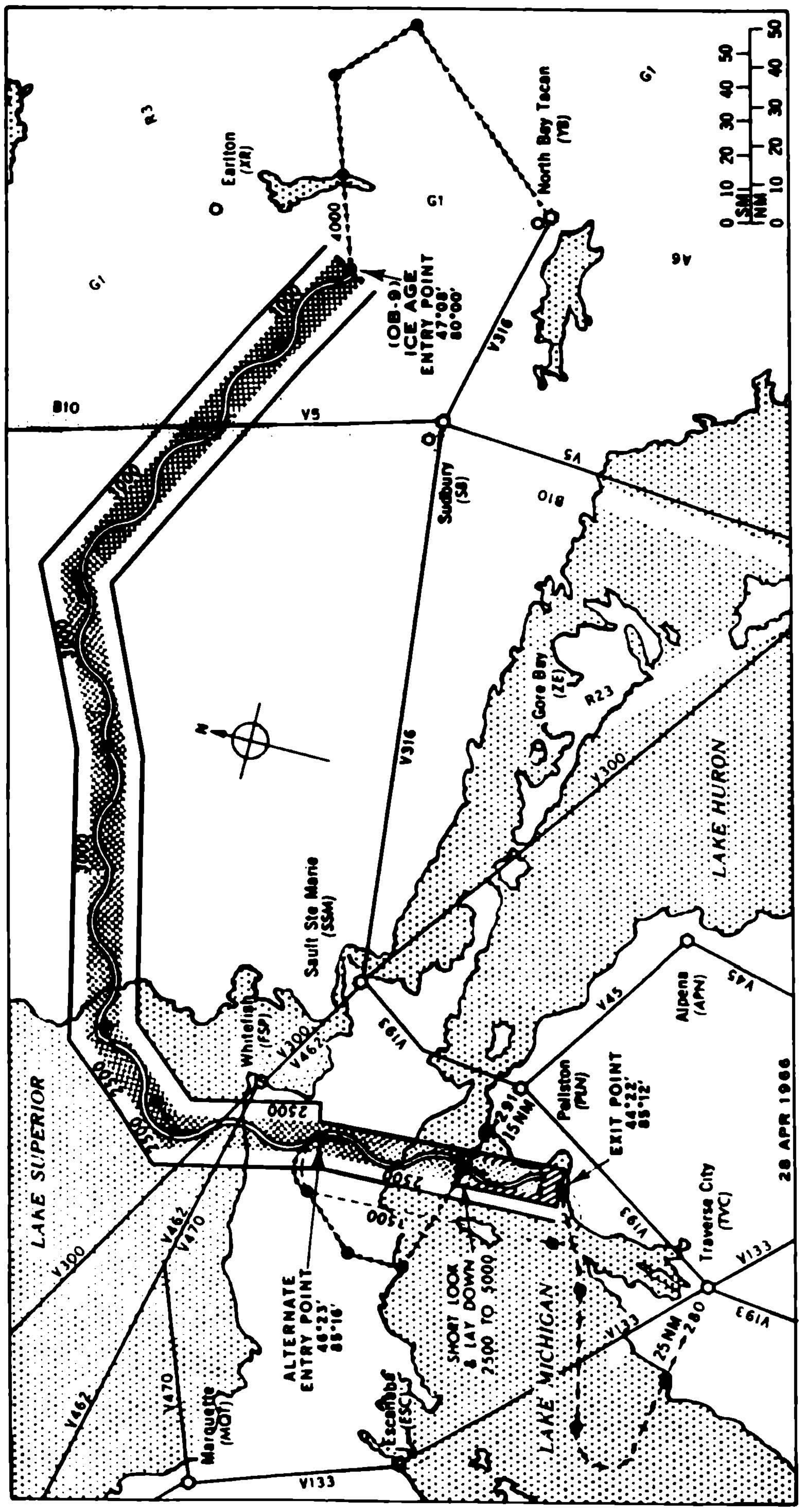
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB–9

Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.


R3
Earlton (XR)
North Bay Tacan (YB)
G1
G1
G1
9V
0 10 20 30 40 50 SM
0 10 20 30 40 50 NM
4000
(OB-9) ICE AGE ENTRY POINT 47°08′ 80°00′
V316
B10
V5
Sudbury (SB)
5A
O18
Gore Bay (ZE)
R23
N
V316
V300
LAKE HURON
Sault Ste Marie (SSM)
Whitefish (FSP)
V300
V462
2500
1500
V193
V45
V45
Alpena (APN)
Pellston (PLN)
291 15NM
EXIT POINT 45°22′ 85°12′
28 APR 1966
LAKE SUPERIOR
V300
V462
V470
V462
V470
ALTERNATE ENTRY POINT 46°23′ 85°16′
SHORT LOOK & LAY DOWN 2500 TO 5000
LAKE MICHIGAN
V133
V193
Traverse City (TVC)
V133
E61A
280
25NM
Marquette (MQT)
Escanaba (ESC)
V133

Short Look and Lay Down—After passing 45°48′N, 85°15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: from 47°08′N, 80°00′W to 45°27′N, 85°13′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

LITTLE SATIN OB–10

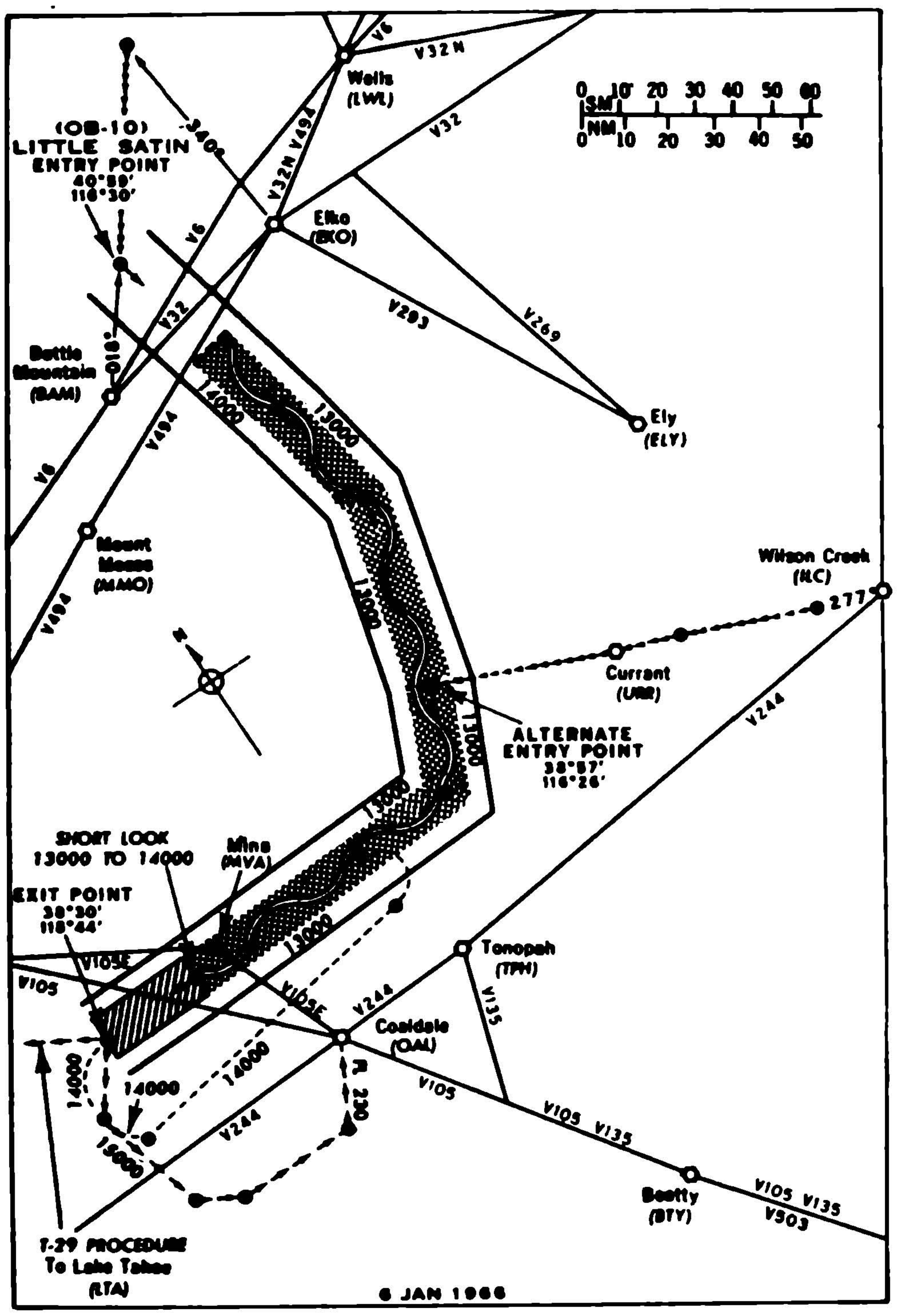
Revised Effective January 2, 1966

Aircraft shall cross 41°40′N, 115°49′W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59′N, 116°30′W (Battle Mountain VOR 018°/31) at 14,000′ MSL, then 14,000′ MSL direct 40°10′N, 116°17′W; then descend to 13,000′ MSL direct 39°42′N, 116°10′W, then 13,000′ MSL direct 38°57′N, 116°26′W, then 13,000′ MSL direct 38°34′N, 116°40′W, then 13,000′ MSL direct 38°31′N, 118°12′W.

Short Look—After passing 38°31′N, 118°12′W aircraft shall operate between a maximum altitude of 14,000′ MSL and a minimum of 13,000′ MSL thru the bomb run corridor (4 NM either side of centerline from 38°31′N, 118°12′ W to 38°30′ N, 118°44′ W). After exiting the route at 38°30′N, 118°44′W aircraft shall start climb to cross 38°15′N, 118°57′W at 15,000′ MSL; then maintain 15,000′ MSL direct 37°48′N, 118°48′W; then climb so as to cross 37°42′N, 118°36′W at or above 17,000′ MSL;

then climb direct to cross 37°42′N, 118°00′W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30′N, 118°44′W, maintain 14,000′ MSL direct 38°15′N, 118°57′W, then 14,000′ direct 38°06′N, 118°50′W direct 38°19′N, 117°12′W; then descend direct to cross 38°33′N, 117°12′W at 13,000′ MSL; thence via the published route.


Wells (LWL)
V6
V32N
V32
V32N V494
(OB-10) LITTLE SATIN ENTRY POINT 40°58′ 118°30′
340°
010°
0 10 20 30 40 50 60 SM
0 10 20 30 40 50 NM
Elko (EKO)
V293
V269
Battle Mountain (BAM)
Ely (ELY)
V494
14000
13000
Mount Moses (MMO)
N
Wilson Creek (ILC)
277°
Currant (URR)
V244
ALTERNATE ENTRY POINT 38°57′ 116°26′
SHORT LOOK 13000 TO 14000
Mina (MVA)
EXIT POINT 38°30′ 118°44′
V105E
V105
Tonopah (TPH)
V135
Coaldale (OAL)
FL 230
15000
T-29 PROCEDURE To Lake Tahoe (LTA)
Beatty (BTY)
V105 V135
V503
6 JAN 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 40°30′N, 116°22′W to 38°31′N, 118°12′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21′N, 114°41′W); then descend direct to cross 38°34′N, 115°18′W at or below 15,000′ MSL; then descend direct via the Currant, Nev. VOR to cross 38°57′N, 116°26′W at 13,000′ MSL, thence via the published route.

T–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15′N, 114°23′W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30′N, 118°44′W exit point of the bomb run corridor; then climb to 14,000′ MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11′N, 120°16′W).

Hours of Operation—24 hours daily, 7 days a week.

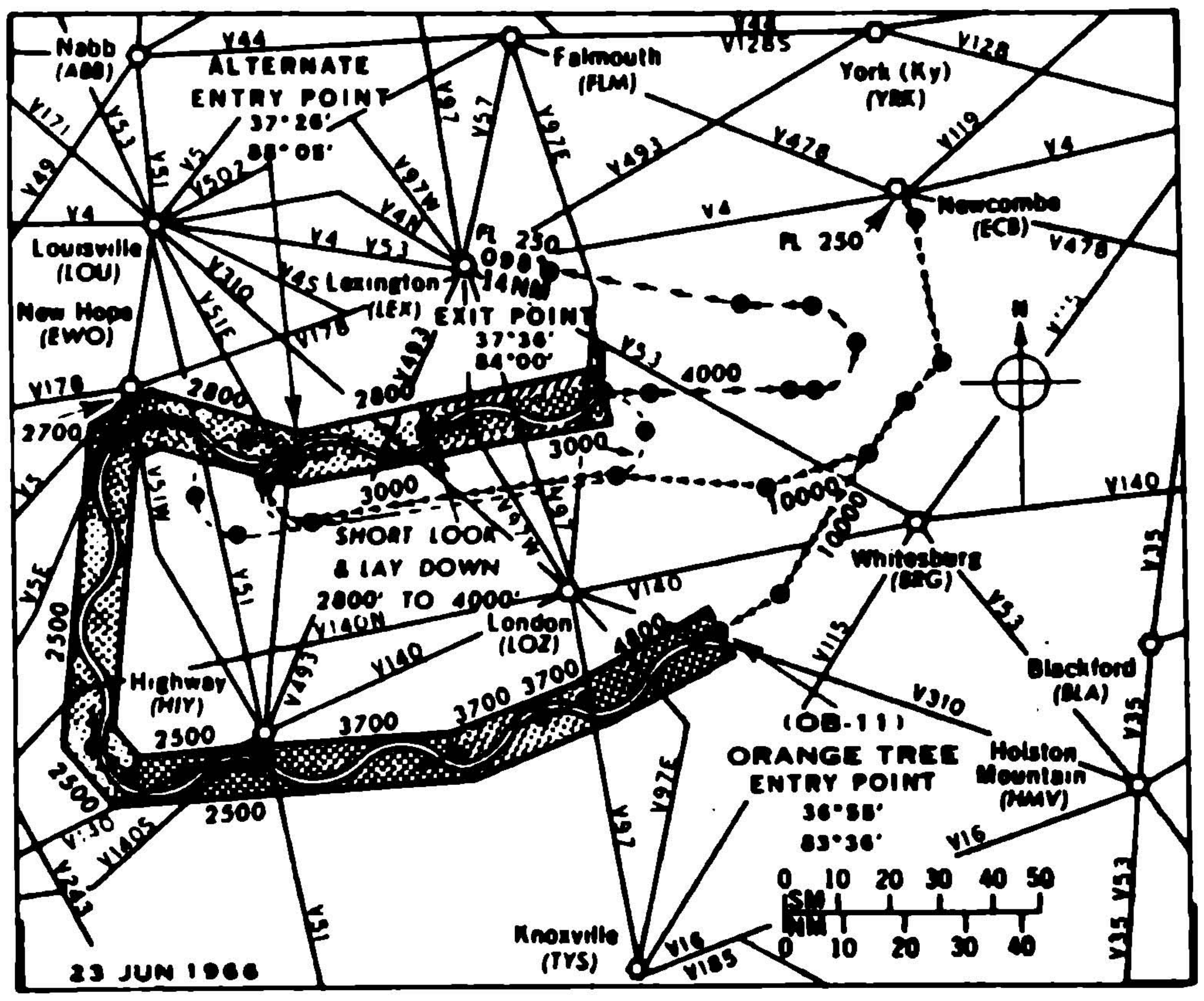
KENTUCKY/TENNESSEE

ORANGE TREE OB–11

Revised Effective June 19, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05′N, 82°53′W; then start descending to cross 37°41′N, 82°48′W at 17,000 feet MSL; cross 37°34′N, 82°55′W at 14,000 feet MSL; cross 37°25′N, 83°04′W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01′N, 83°24′W; then start descent so as to cross route entry at 36°55′N, 83°36′W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45′N, 84°01′W; then descend so as to cross 36°41′N, 84°14′W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°35′N, 84°32′W; direct 36°32′N, 85°15′W; descend so as to cross 36°32′N. 85°21′W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31′N, 85°40′W; then turn right to 36°36′N, 85°49′W; direct 37°28′N, 85°44′W; then turn right climb to cross 37°32′N, 85°35′W at 2800′ MSL; then at 2800′ MSL direct 37°26′N, 85°05′W; then at 2800 feet MSL direct 37°30′N, 84°38′W.

Short Look and Lay Down—After passing 37°30′N, 84°38′W aircraft shall maintain between 2800′ and 4000′. feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30′N, 84°38′W to 37°36′N, 84°00′W). After exiting the route at 37°36′N, 84°00′W aircraft shall cross 37°36′N, 83°50′W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36′N, 83°20′W; then start climb direct 37°36′N, 83°15′W; cross 37°44′N, 83°05′W at or below 9,000 feet MSL; continue climb direct 37°50′N, 83°15′W; then climbing direct so as to cross 37°51′N, 83°30′W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56′N, 84°11′W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.


Nabb (ABB)
V44
ALTERNATE ENTRY POINT 37°26′ 85°05′
Falmouth (FLM)
V128S
York (Ky) (YRK)
V128
V478
V119
V4
V493
Newcombe (ECB)
FL 250
Louisville (LOU)
New Hope (EWO)
Lexington (LEX)
FL 250
098°
14NM
EXIT POINT 37°36′ 84°00′
4000
2800
2700
3000
SHORT LOOK & LAY DOWN 2800′ TO 4000′
10000
V140
Whitesburg (BRG)
London (LOZ)
Highway (HIY)
2500
3700
4800
Blackford (BLA)
(OB-11) ORANGE TREE ENTRY POINT 36°55′ 83°36′
Holston Mountain (HMV)
V16
0 10 20 30 40 50 SM
0 10 20 30 40 NM
Knoxville (TYS)
V185
V35
23 JUN 1966

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb

run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3,000 feet MSL continue right turn to 37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28' N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°-15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53' W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3,00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800' MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

Hours of Operation—24 hours daily, 7 days per week.

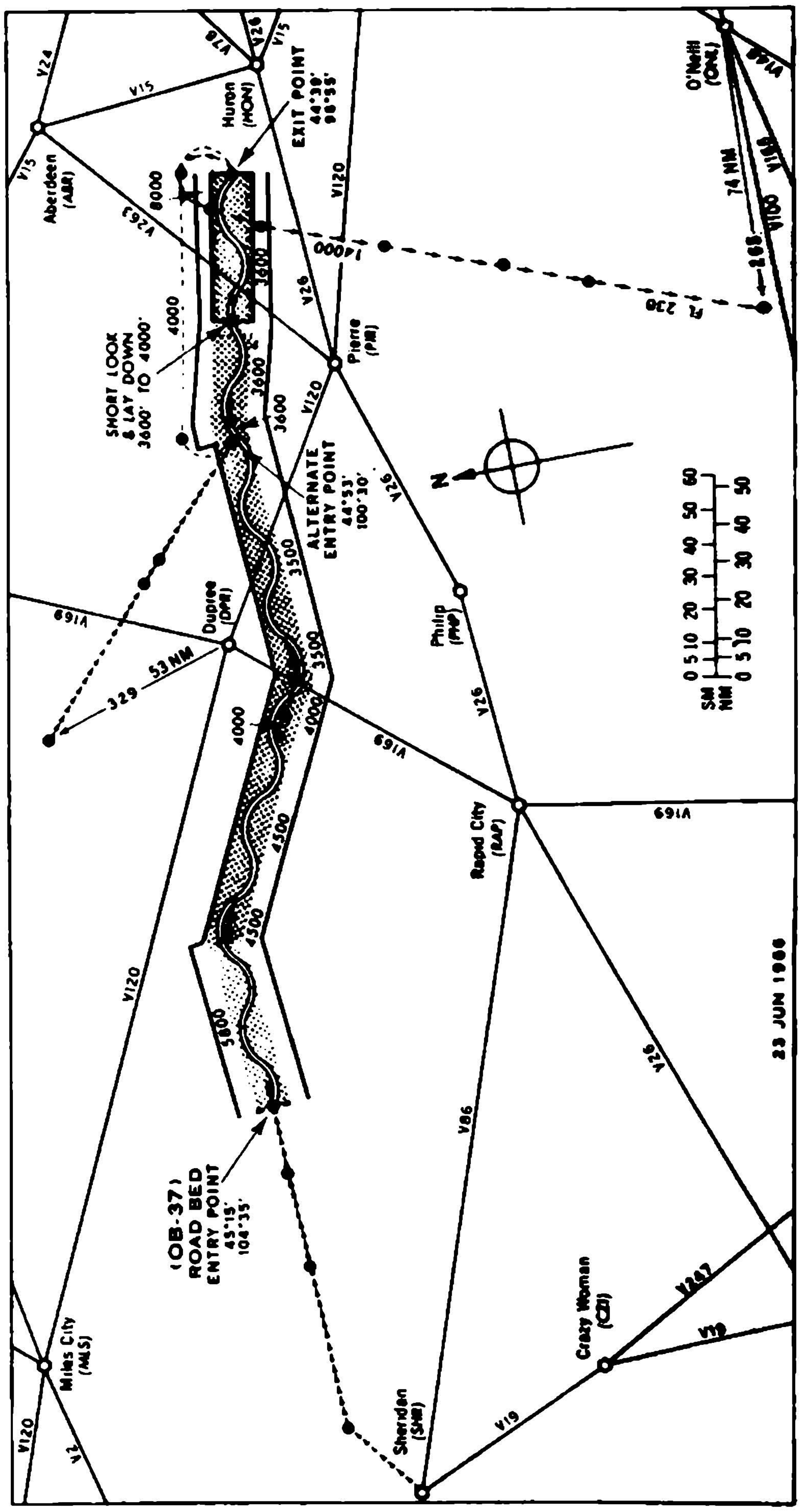
MONTANA/SOUTH DAKOTA

ROAD BED OB–37

Revised Effective June 19, 1966 through September 24, 1966

Aircraft shall cross the Sheridan, Wyoming VORTAC at FL 230 or as assigned by ARTCC; maintain FL 230 or assigned altitude direct to 45°08'N, 106°36'W; then start descent so as to cross 45°12'N, 105°35'W at or below 17,000' MSL then descend direct so as to cross 45°14'N, 105°00'W at or below 13,500 MSL continue descent so as to cross the route entry point at 45°15'N, 104°35'W at 5800' MSL; then at 5800' MSL direct to 45°20'N, 103°30'W; then descend so as to cross 45°18'N, 103°23'W at 4500' MSL; then at 4500' MSL direct 44°57'N, 102°20'W; then descend direct so as to cross 44°55'N, 102°14'W at 4000' MSL; then at 4000' MSL direct to 44°50'N, 102°00'W; then descend direct so as to cross 44°50'N, 101°55'W at 3500' MSL; then at 3500' MSL direct to 44°53'N, 100°30'W; then climb so as to cross 44°53'N, 100°23'W at 3600' MSL; then at 3600' MSL direct to the entry point of the bomb run corridor at 44°47'N, 99°49'W.

Short Look and Lay Down—After passing 44°47'N, 99°49' W, aircraft shall maintain between 3600' MSL and 4000' MSL through thhe bomb run corridor (4 NM either side of centerline from 44°47'N, 99°49'W to 44°39'N, 98°55'W). After exiting the route at 44°39'N, 98°55'W, aircraft shall turn left climbing so as to cross 44°52'N, 98°51'W at 8000' MSL; then at 8000' MSL continue left turn direct 44°47'N, 99°06'W; then start climb direct so as to cross 44°35'N, 99°17'W at 14,000' MSL; then at 14,000' MSL direct 44°05'N, 99°33'W; then start climb direct O'Neil, Nebraska VORTAC 265/74 (42°35'N, 100°-21'W) crossing 43°36'N, 99°49'W at or above FL 200; crossing 43°16'N, 100°00'W at FL 230; then maintain FL 230 to O'Neil 265/74.



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 44°39'N, 98°55'W turn left and climb to or maintain 4000' MSL to 44°52'N, 98°51'W; then at 4000' MSL direct to 45°06'N, 100°26'W; then turn left and descend to 3500' MSL direct to 44°53'N, 100°30'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°15'N, 104°35'W to 44°39'N, 98°55'W.

Alternate Entry—Aircraft shall cross the Dupree, South Dakota VORTAC 329/53 (45°55'N, 102°06'W) at FL 200 or below as assigned by ARTCC; then descend direct so as to cross 45°23'N, 101°16'W at 16,000' MSL; then descend direct so as to cross 45°18'N, 101°08'W at or above 14,000' MSL; then descend direct so as to cross

44°53'N, 100°30'W at 3500' MSL; thence via the published route.

Route Width—The route width is reduced to 4 NM on the north side of centerline from 45°20'N, 103°30'W to 44°53'N, 100°30'W.

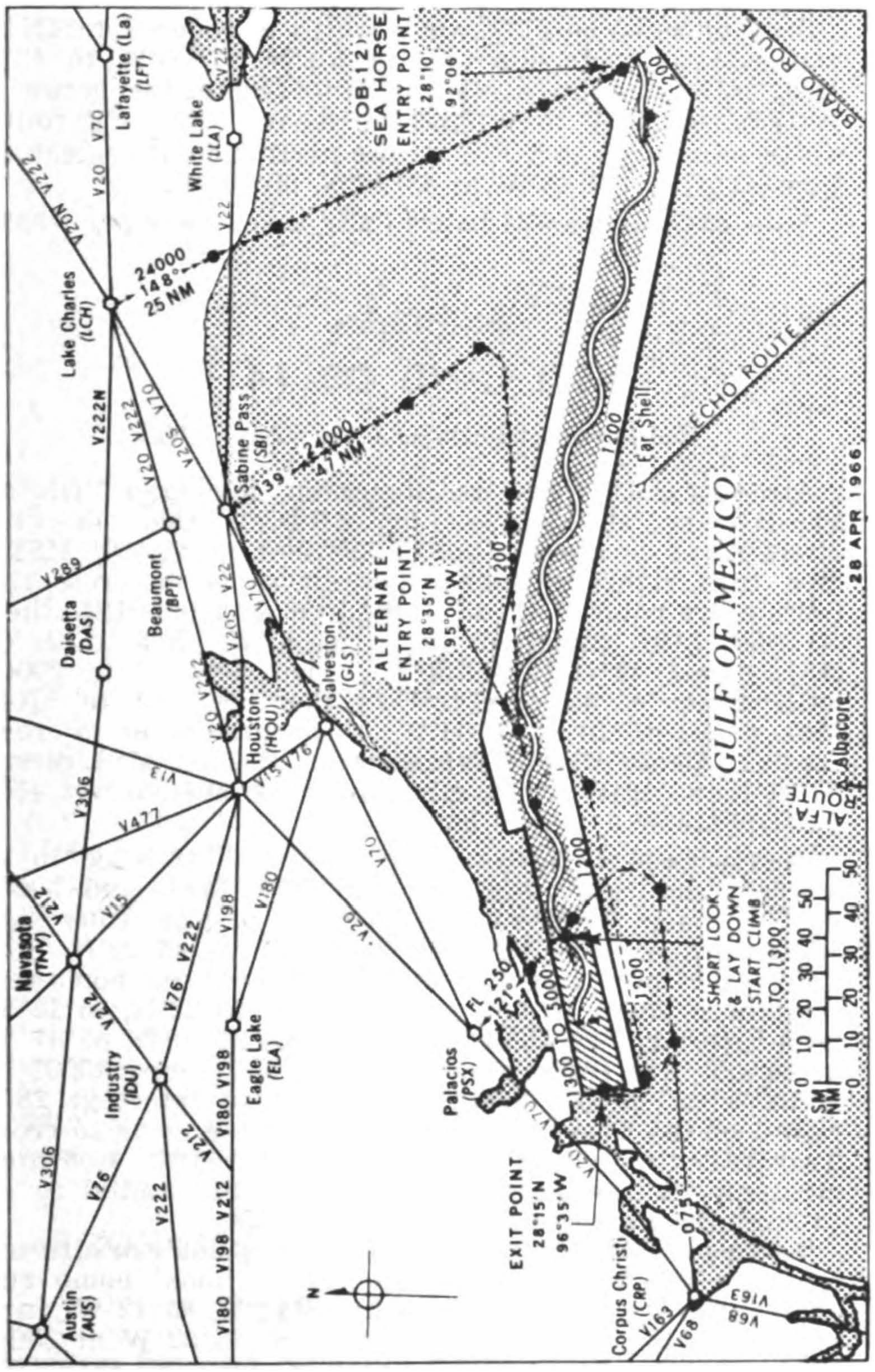
Hours of Operation—24 hours daily, 7 days per week.

TEXAS

SEA HORSE OB–12

Revised Effective February 27, 1966

Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix; start descent, cross 29°31'N, 92°47'W at FL 190, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1200' MSL (low level entry point). Maintain 1200' MSL, turn right to 28°03'N, 92°16'W, direct 28°35'N, 95°00'W. direct 28°24'N, 95°53'W.


(OB-12) SEA HORSE ENTRY POINT 28°10' 92°06'
24000 148° 25 NM
Lake Charles (LCH)
Lafayette (La) (LFT)
White Lake (LLA)
Sabine Pass (SBI)
139 24000 47 NM
Beaumont (BPT)
Daisetta (DAS)
Houston (HOU)
Galveston (GLS)
ALTERNATE ENTRY POINT 28°35'N 95°00'W
Navasota (TNV)
Industry (IDU)
Eagle Lake (ELA)
Austin (AUS)
Palacios (PSX)
FL 250 121°
1300 TO 5000
EXIT POINT 28°15'N 96°35'W
Corpus Christi (CRP)
075
SHORT LOOK & LAY DOWN START CLIMB TO 1300
1200
Eat Shell
ECHO ROUTE
BRAVO ROUTE
ALFA ROUTE
Albacore
GULF OF MEXICO
28 APR 1966
SM NM 0 10 20 30 40 50
V20 V70 V222 V222N V20N V205 V22 V289 V306 V477 V15 V76 V212 V198 V180 V163 V68

Short Look and Lay Down—After passing 28°24'N, 95°53' W climb to 1300' MSL and maintain between 1300' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 28°24'N, 95°53'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35' W, the route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°35'W turn left so as to cross 28°05'N, 96°32'W at 2,000' MSL; maintain 2000' MSL direct 28°18'N, 95°15'W, turn left descending so as to intercept the route at 28°31'N, 95°19' W at 1200' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the surface between the following points: From 28°10'N, 92°06'W to 28°19'N, 96°16'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the surface.

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°37'N, 94°06'W at 1200' MSL, direct 28°35'N, 95°00'W, thence via the published route.

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30'N, 95°24'W to 28°15'N, 96°35'W.

Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

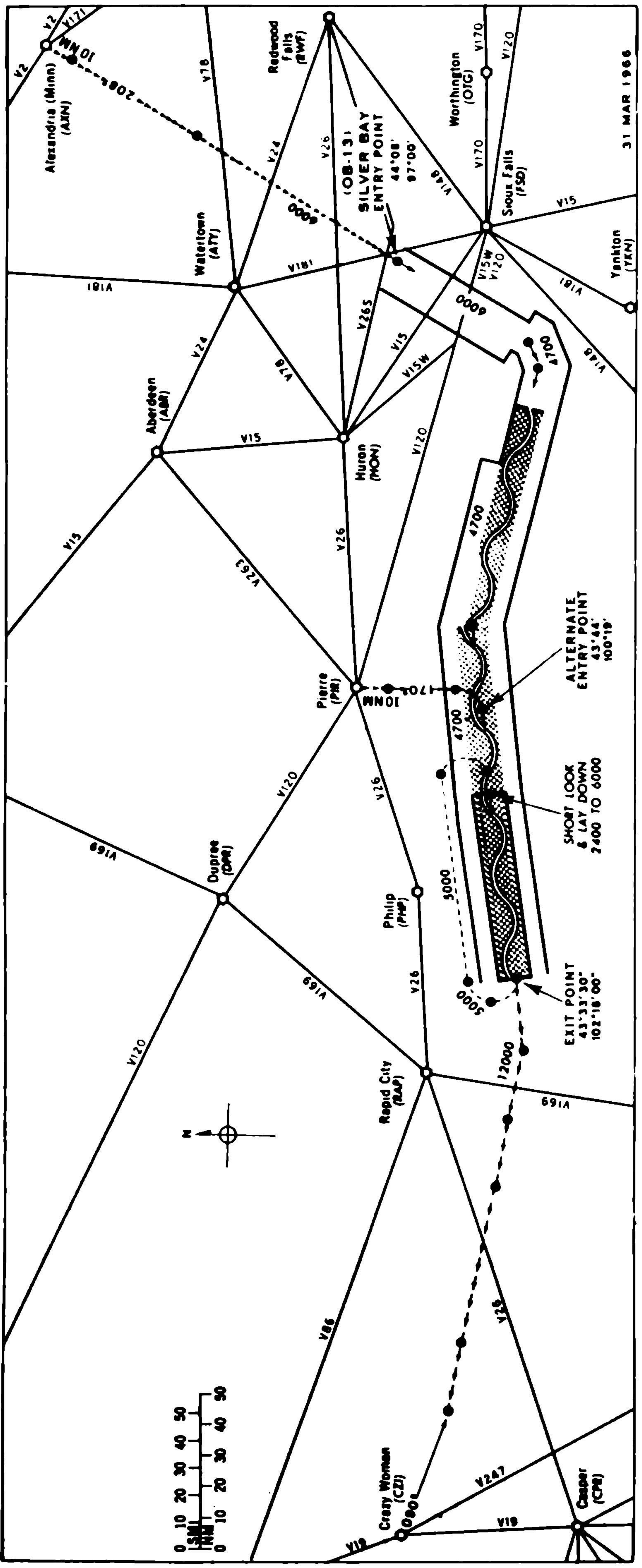
SILVER BAY OB–13

Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10'N, 96°00'W at 6000' MSL; then at 6000' MSL direct 44°08'N, 97°00'W (low level entry point); then at 6000'MSL direct 43°27'N, 97°37'W; then turn right descending so as to cross 43°24'N, 97°48'W at 4700' MSL; then at 4700' MSL direct 43°47'N, 99°45'W; then at 4700' MSL direct to 43°42'N, 100°56'W.

Short Look and Lay Down—After passing 43°42'N, 100°56'W, aircraft shall maintain between 2400' MSL and 6000' MSL through the bomb run corridor (4 NM either side of centerline from 43°42'N, 100°56'W to 43°33'30''N, 102°18'W). The minimum IFR altitude through the corridor is 4700' MSL. After exiting the route at 43°33'30''N, 102°18'W aircraft shall climb so as to cross 43°30'N. 102°50'W at 12,000' MSL; then at 12,000' MSL direct to 43°34'N, 103°20'W then climb direct so as to cross 43°37'30''N, 103°50'W at FL 180 then climb direct so as to cross 43°46'N, 105°00'W at or below FL 230 then climb direct so as to cross 43°49'N, 105°30'W (CZI 090/42 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33'30''N, 102°18'W turn right and climb or descend so as to cross 43°40'N,



102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°56'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30''N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30''N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08'N, 97°00'W to 43°29'N, 97°35'W and 4 NM north of centerline between 43°29'N, 97°35'W to 43°32'N, 98°30'W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41'N, 99°13'W to 43°47'N, 99°45'W.

Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND OB-14

Revised Effective June 24, 1965

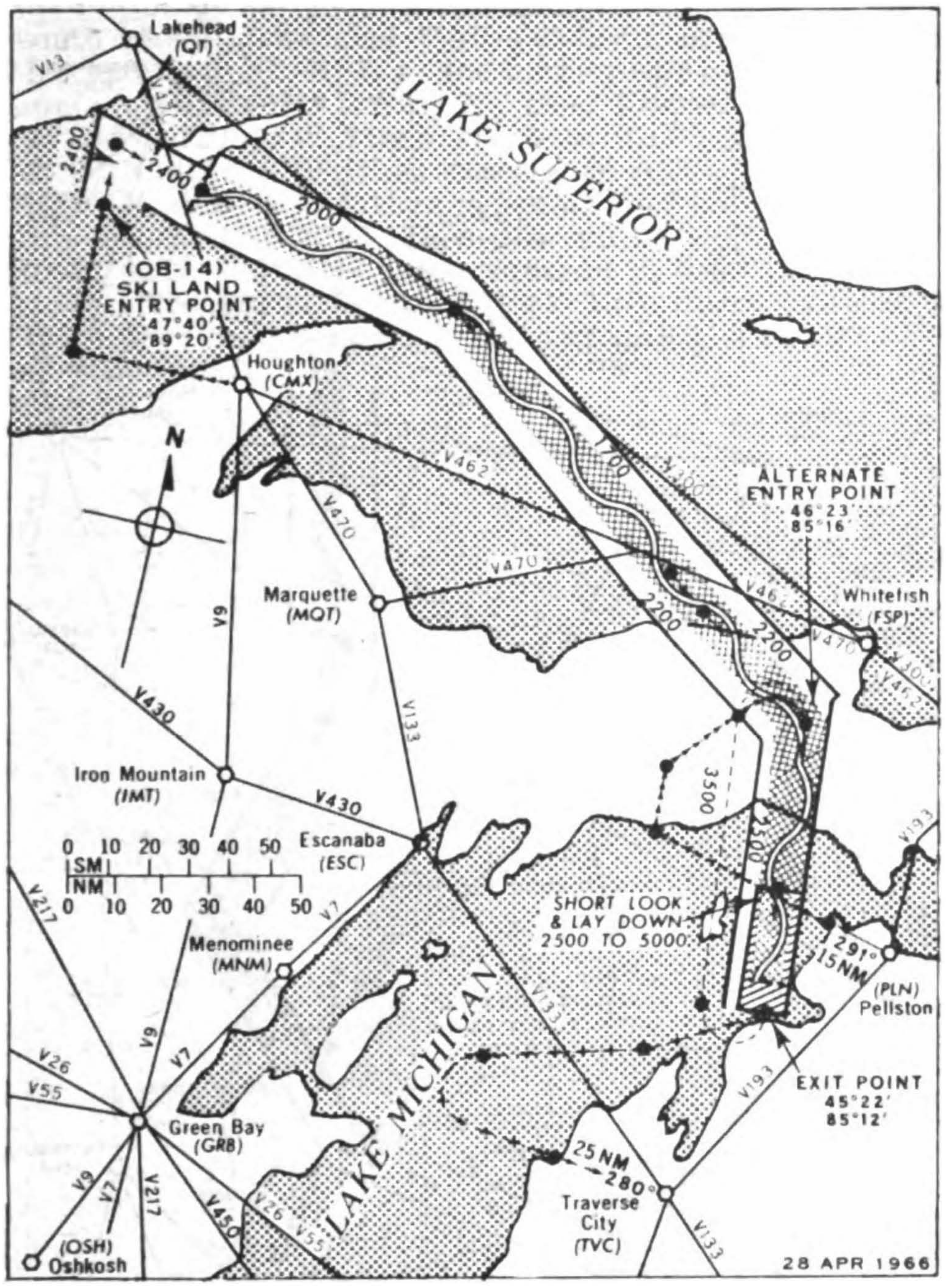
Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52''N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°48'N, 85°15'W.

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then


Lakehead (QT)
V13
2400
2400
LAKE SUPERIOR
2000
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
N
1700
V462
ALTERNATE ENTRY POINT 46°23' 85°16'
V470
V470
V46
Whitefish (FSP)
2200
2200
Marquette (MQT)
V9
V430
V133
3500
Iron Mountain (IMT)
V430
Escanaba (ESC)
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50
SHORT LOOK & LAY DOWN 2500 TO 5000
291° 15NM
(PLN) Pellston
Menominee (MNM)
V217
V7
V9
LAKE MICHIGAN
V191
V26
V55
Green Bay (GRB)
EXIT POINT 45°22' 85°12'
25NM 280°
Traverse City (TVC)
V133
V217
V450
(OSH) Oshkosh
28 APR 1966

proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

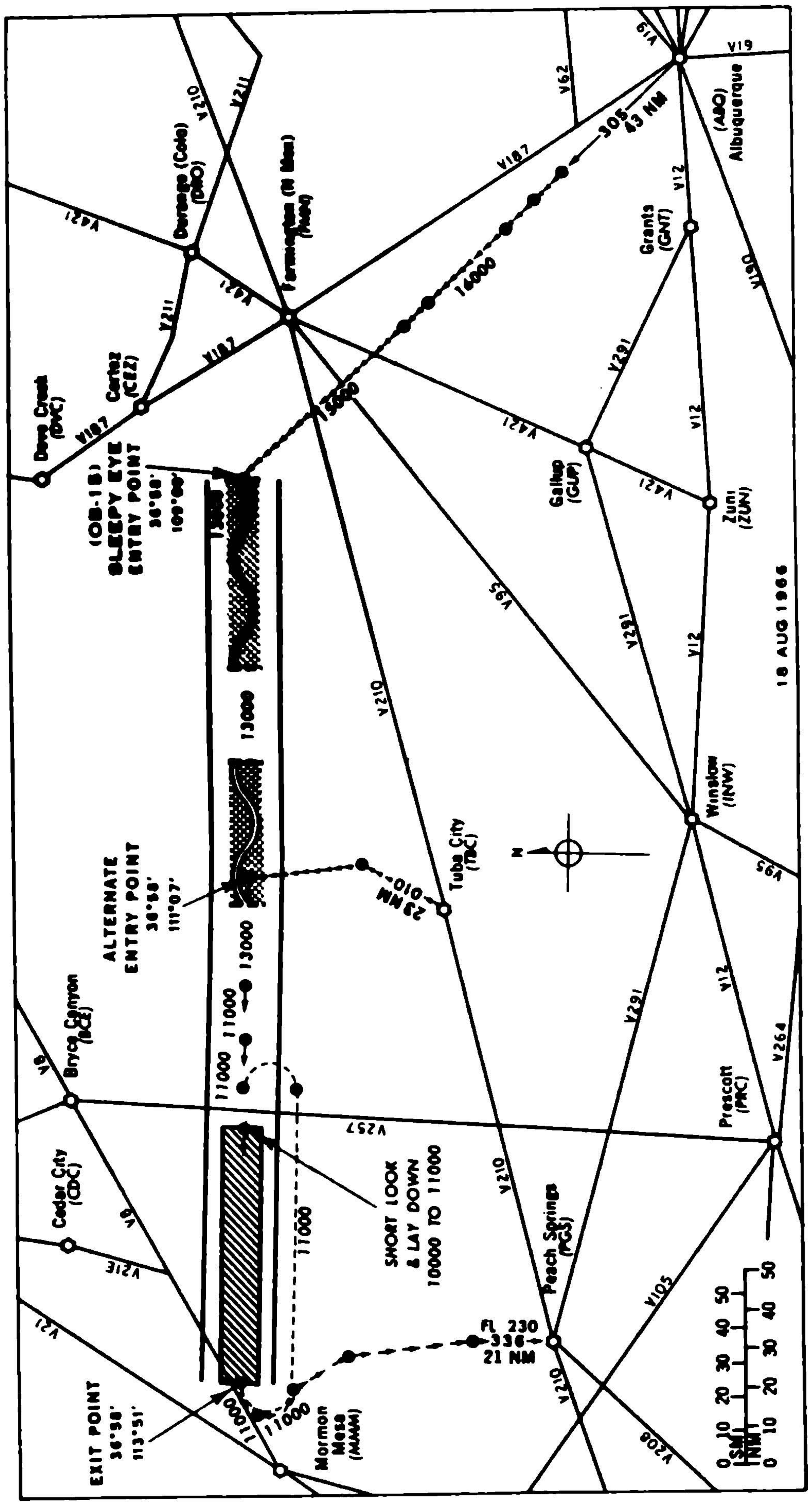
Hours of Operation—0000Z to 2400Z, 7 days a week.

ARIZONA/COLORADO/NEW MEXICO/UTAH

• SLEEPY EYE OB–15

Revised Effective August 4, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°49'N, 107°42'W at 16,000' MSL; then maintain 16,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.


V19
(ABQ) Albuquerque
V611
V62
V187
305° 43 NM
16000
V12
Grants (GNT)
V190
V291
Durango (Colo) (DRO)
V210
V211
Farmington (N Mex) (FMN)
V421
V211
V187
Cortez (CEZ)
Dove Creek (DVC)
V187
15000
(OB-15) SLEEPY EYE ENTRY POINT 36°58' 109°00'
V421
Gallup (GUP)
V12
V421
Zuni (ZUN)
V95
V291
V12
18 AUG 1966
V210
13000
Winslow (INW)
Tuba City (TBC)
N
010° 23 NM
ALTERNATE ENTRY POINT 36°58' 111°07'
13000
11000 11000
V95
V12
V264
V291
V8
Bryce Canyon (BCE)
V257
SHORT LOOK & LAY DOWN 10000 TO 11000
11000
V210
Prescott (PRC)
Cedar City (CDC)
V8
V312
Peach Springs (PGS)
V105
V21
FL 230 336° 21 NM
V210
EXIT POINT 36°58' 113°51'
11000
11000
Mormon Mesa (MMM)
V208
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50

Short Look and Lay Down—After passing 36°58'N, 112°29'W aircraft shall operate between 10,000' and 11,000' MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30"N, 113°32'W).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left

direct to cross 36°58'N, 112°16'W at or below 11,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°58N, 111°16'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07'30"N, 111°16'W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28'N, 111°04'W); then descend direct to cross 36°58'N, 111°07'W at 13,000' MSL; thence via published route.

Hours of Operation—24 hours daily, 7 days a week.

MAINE/NEW HAMPSHIRE/NEW YORK/VERMONT

STOCK FARM OB–38

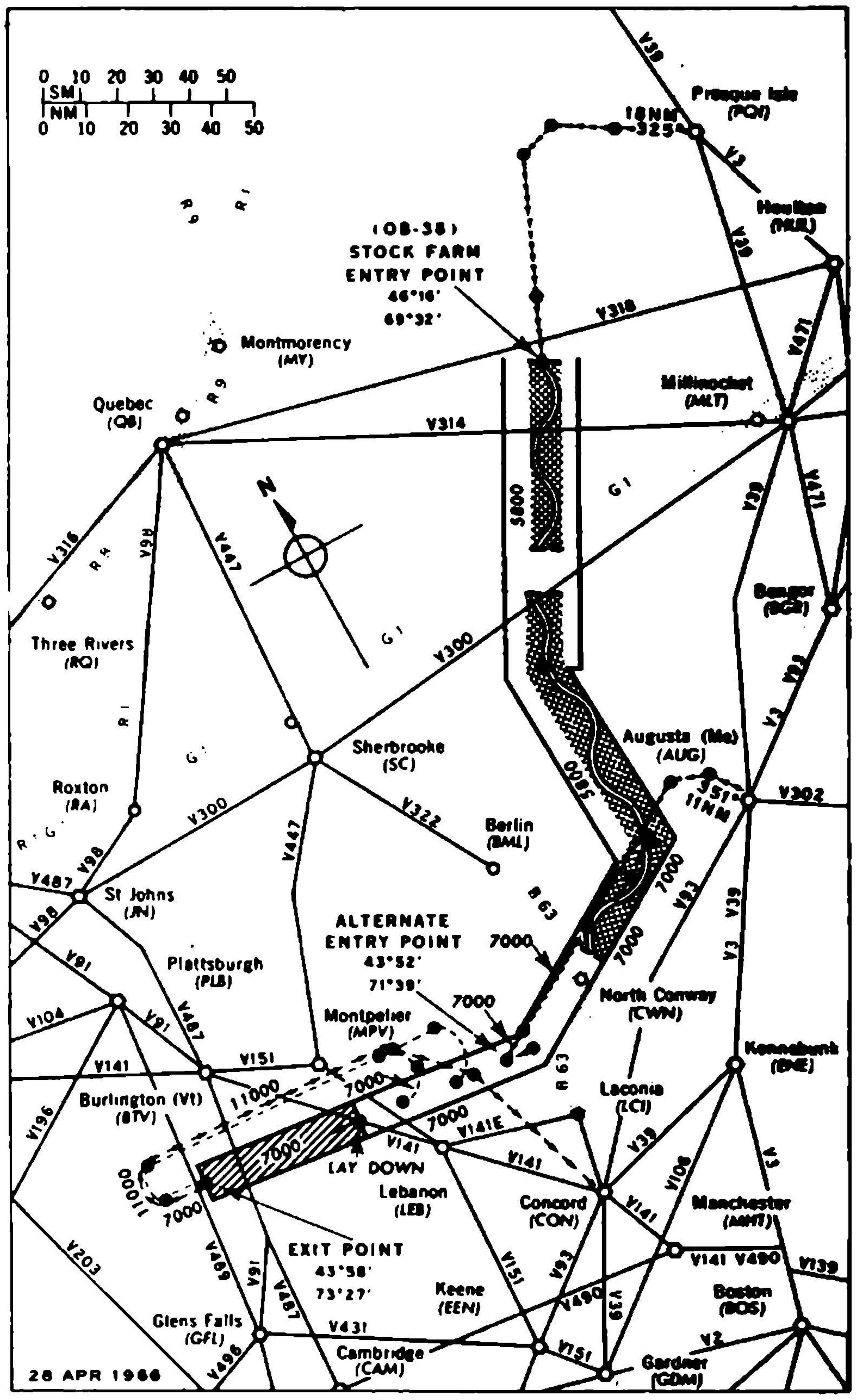
Effective: April 24, 1966 thru September 24, 1966

Aircraft shall cross 46°46'30"N, 68°06'W (Presque Isle, Maine VORTAC) at FL 250, or as assigned by ARTCC, then at FL250, or assigned FL, direct to 46°56'N, 68°28'W (Presque Isle VORTAC 325/18 NM DME fix); descend direct to cross 47°04'N, 68°46'W at or above FL 180; turn left descending to 47°02'N, 69°00'W; continue descent direct to cross 46°30'N, 69°22'30"W at or below 8000' MSL; descend direct to cross 46°16'N, 69°32'W route low level entry point at 5800' MSL; then at 5,800' MSL direct to 45°11'N, 70°24'W; direct 44°22'N, 70°22'W; climb direct so as to cross 44°17'N, 70°33'W at 7,000' MSL; direct 43°51'N, 71°30'W; (reporting point) direct 43°55'N, 72°32'W.

Lay Down—After passing 43°55'N, 72°32'W, aircraft shall operate at 7,000' MSL through the bomb run corridor (4 NM either side of centerline from 43°55'N, 72°32'W to 43°58'N, 73°27'W). After exiting the route at 43°58'N, 73°27'W, aircraft shall maintain 7,000' MSL direct 43°59'N, 73°41'W; (reporting point) turn right; climb to cross 44°09'N, 73°41'W at 11,000' MSL; direct 44°07'N, 72°11'W; climb direct to cross 43°52'N, 71°51'W at or below 14,000' MSL; then climb direct so as to cross 43°13'N, 71°35'W (Concord, N.H. VOR) at FL 230 or as assigned by ARTCC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 43°58'N, 73°27'W, maintain 7,000' MSL direct to 43°59'N, 73°41'W; (reporting point) turn right, climb to cross 44°09'N, 73°41'W at 11,000' MSL; then at 11,000' MSL direct 44°07'N, 71°55'W; turn right, descend to cross 43°53'N, 71°57'W at 7,000' MSL; thence via the published route. The aircraft may after 44°09'N, 73°41'W at 11,000' MSL; proceed direct to 44°07'N, 72°16'W; then turn right and descend so as to cross 44°00'N, 72°07'W at 7,000' MSL; then continue turn at 7,000' MSL; to 43°54'N, 72°16'W thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 46°16'N, 69°32'W to 45°36'30"N, 70°03'30" W and from 45°27'N, 70°11'W to 44°06'N, 70°58'W. VFR operations shall not be conducted during the hours of darkness.


0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
(OB-38)
STOCK FARM
ENTRY POINT
46°16'
69°32'
Presque Isle (PQI)
18NM 325°
Houlton (HUL)
Montmorency (MY)
Quebec (QB)
Millinocket (MLT)
Three Rivers (RQ)
Bangor (BGR)
Sherbrooke (SC)
Augusta (Me) (AUG)
351° 11NM
Roxton (RA)
Berlin (BML)
St Johns (JN)
Plattsburgh (PLB)
ALTERNATE
ENTRY POINT
43°52'
71°39'
Montpelier (MPV)
North Conway (CWN)
Kennebunk (ENE)
Burlington (Vt) (BTV)
LAY DOWN
Lebanon (LEB)
Laconia (LCI)
Concord (CON)
Manchester (MHT)
EXIT POINT
43°58'
73°27'
Keene (EEN)
Boston (BOS)
Glens Falls (GFL)
Cambridge (CAM)
Gardner (GDM)
V39
V3
V318
V314
V471
V316
V98
V447
V300
V322
V302
V93
V487
V91
V104
V141
V151
V141E
V196
V203
V489
V431
V496
V490
V139
V106
V2
5800
7000
11000
R 63
N
G 1

28 APR 1966

Alternate Entry—Aircraft shall cross 44°19'N, 69°47'W (Augusta, Maine VOR) at FL 180 or as assigned by ARTCC; then at FL 180 direct 44°29'N, 69°54'W (Augusta VOR 351° radial 11 NM); then at FL 180 or assigned altitude, turn left to 44°32'N, 70°06'W; descend direct to cross 44°11'N, 70°55'W at 7,000' MSL; direct 43°56'N, 71°30'W; then at 7,000' MSL direct to 43°52'N, 71°39'W; (reporting point) thence via the published route.

Route Width—The route width is reduced to 4 NM on the east side of centerline from 45°11'N, 70°24'W to 44°22'N, 70°22'W and to 4 NM on either side of centerline from 44°22"N, 70°22'W to 43°58'N, 73°27'W. The VFR route width is reduced to 2 NM on the W side of centerline from 46°16'N, 69°32'W to 45°36'30"N, 70°03' 30"W.

Hours of Operation—24 hours daily, 7 days per week.

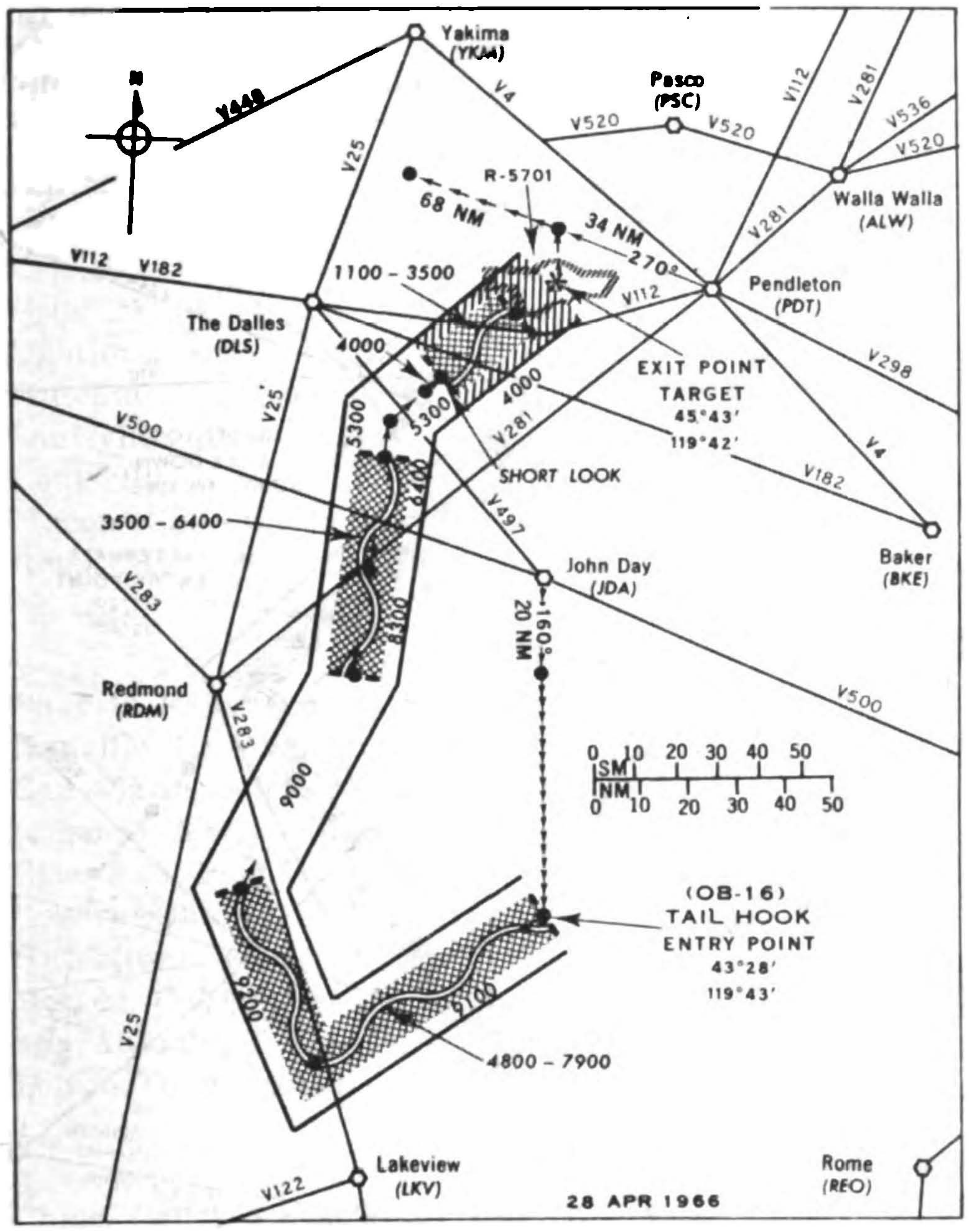
OREGON

TAIL HOOK OB–16

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000' MSL, or as assigned by Seattle

ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19'N, 119°43'W); then descend to 9100' MSL to the entry point of the low level route at 43°28'N, 119°43'W; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.



Yakima (YKM)
Pasco (PSC)
Walla Walla (ALW)
Pendleton (PDT)
The Dalles (DLS)
R-5701
68 NM
34 NM
270°
1100 - 3500
4000
5300
EXIT POINT TARGET 45°43' 119°42'
SHORT LOOK
3500 - 6400
John Day (JDA)
Baker (BKE)
Redmond (RDM)
160°
20 NM
9000
8300
6400
0 10 20 30 40 50 SM NM
(OB-16) TAIL HOOK ENTRY POINT 43°28' 119°43'
9100
4800 - 7900
Lakeview (LKV)
Rome (REO)
28 APR 1966

Short Look—After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R–5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 23,000' MSL.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R–5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

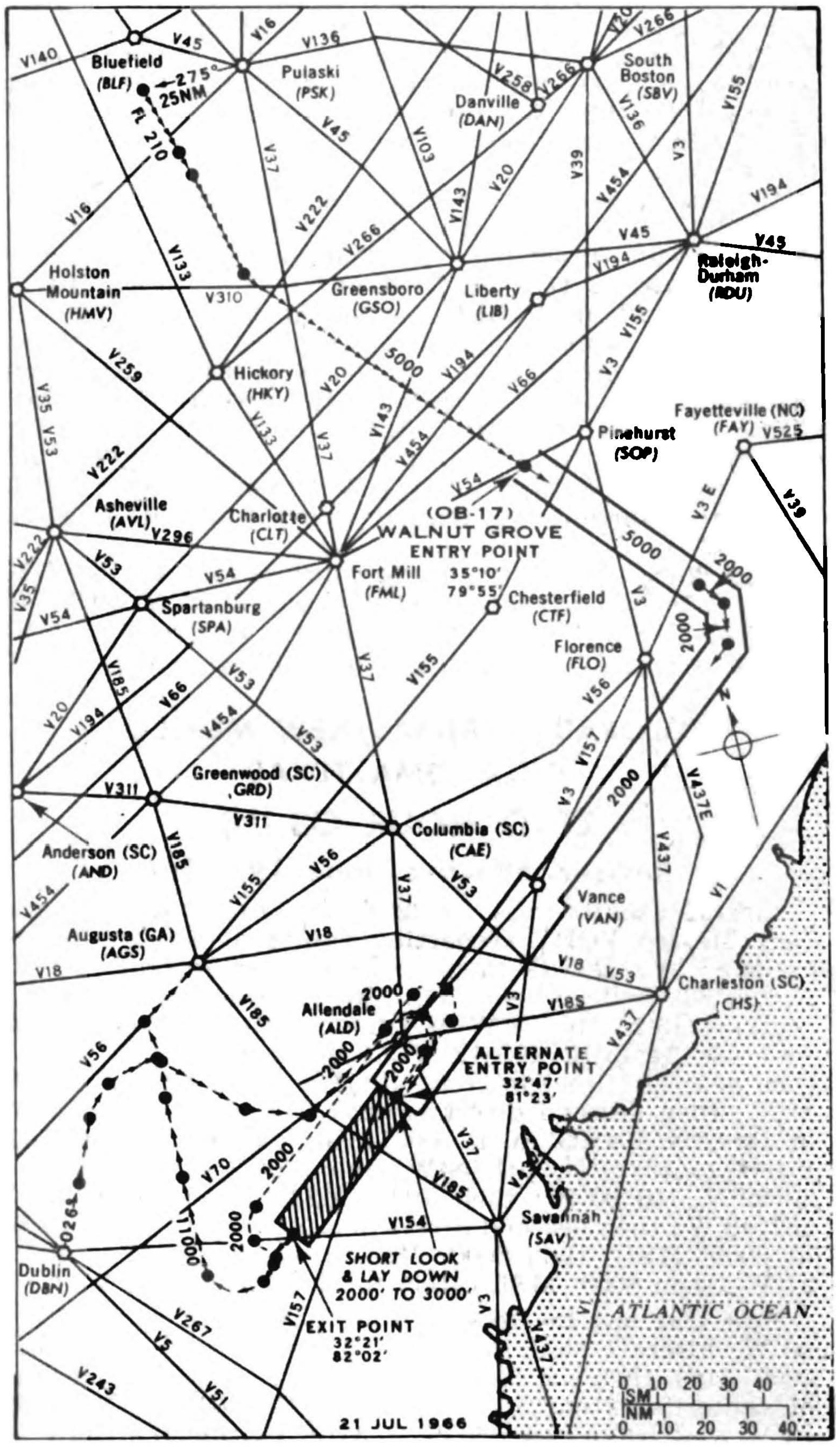
Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE OB–17

Revised Effective January 6, 1966

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°13'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 81°23'W.



Bluefield (BLF)
275°
25NM
FL 210
Pulaski (PSK)
Danville (DAN)
South Boston (SBV)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
5000
Fayetteville (NC) (FAY)
Pinehurst (SOP)
Asheville (AVL)
Charlotte (CLT)
(OB-17) WALNUT GROVE ENTRY POINT 35°10' 79°55'
Fort Mill (FML)
Chesterfield (CTF)
Florence (FLO)
Spartanburg (SPA)
2000
Greenwood (SC) GRD)
Columbia (SC) (CAE)
Anderson (SC) (AND)
Vance (VAN)
Augusta (GA) (AGS)
Allendale (ALD)
Charleston (SC) (CHS)
ALTERNATE ENTRY POINT 32°47' 81°23'
Savannah (SAV)
SHORT LOOK & LAY DOWN 2000' TO 3000'
EXIT POINT 32°21' 82°02'
Dublin (DBN)
ATLANTIC OCEAN
0 10 20 30 40 SM NM
21 JUL 1966

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000'

MSL through the bomb run corridor (4 NM either side of center line from 32°47'N, 81°23'W to 32°21'N, 82°02'W). After exiting the route at 32°21'N, 82°02'W, aircraft shall climb to or maintain 3,000' MSL to 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4,000' MSL; cross 32°12'N, 82°15'W at 6,000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30''W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21'N, 82°02'W, turn right and descend or maintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' MSL continue turn to 32°30'N, 82°11'W; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04'N, 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 81°23'W; thence via the published route. Aircraft may proceed at 2000' MSL from 32°30'N, 82°11'W, direct 33°11'N, 81°09'30''W; turn right to 33°11'N, 80°59'30'' W; continue turn to 33°02'N, 81°01'W; thence via published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 026° radial so as to cross 32°47'N, 82°59'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000' MSL; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04', 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26'N, 80°25'W to 32°47'N, 81°23'W the route width is reduced to 6 NM.

Hour of Operation—24 hours daily, 7 days a week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB–18

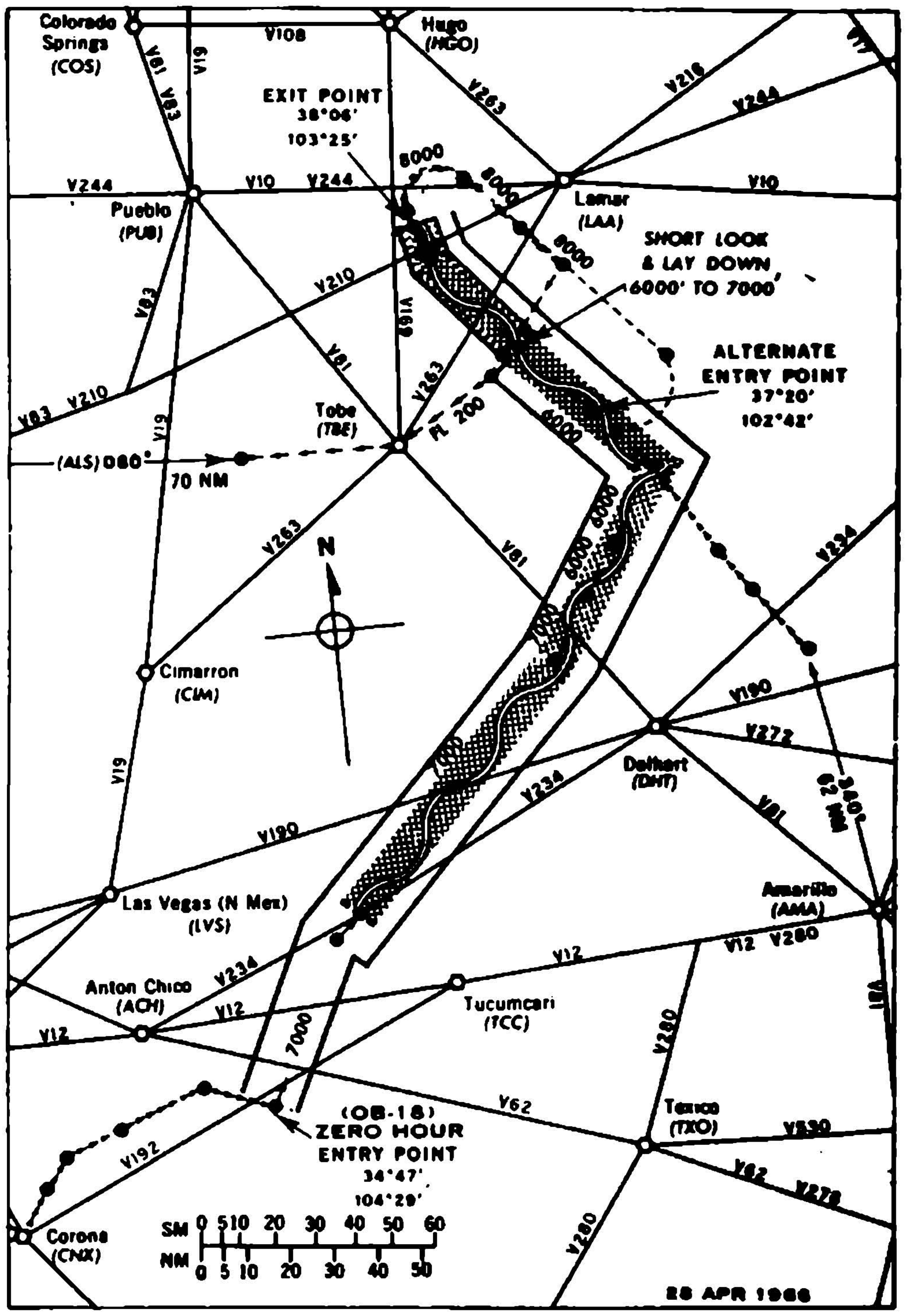
Revised Effective June 19, 1966

Aircraft shall cross 34°22'N, 105°40'30''W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33'N, 105°33'W at or below FL 230; then descend direct to cross 34°40'N, 105°28'W at FL 220; then descend direct to cross 34°45'N, 105°12'W at or below 17,000' MSL; then descend direct to cross 34°53'N, 104°48'W at 10,000' MSL; then descend direct to cross the route entry point at 34°47'N, 104°29' W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104°08'W; then 7000' MSL direct to 36°22'N, 103°00'W; then 7000' MSL direct to 36°37'N, 102°49'W; then descend direct to cross 36°49'N, 102°40'W at 6000' MSL; then 6000' MSL direct to 37°06'N, 102°27'W; then 6000' MSL direct to 37°36'N, 103°00'W.

Short Look and Lay Down—After passing 37°36'N, 103°00'W, aircraft shall maintain between 6000' MSL and 7000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°36'N, 103°00'W to 37°57'N, 103°22'W to 38°06'N, 103°25'W). After exiting the route at 38°06'N, 103°25'W climb direct to cross 38°09'N, 103°26'W at 8000' MSL, turn right, maintain 8000' MSL to 38°15'N, 103°10'W, then 8000' MSL direct to 38°02'N, 102°55'W, then climb direct to cross 37°53'N, 102°45'W at 9000' MSL, continue climb direct to cross 37°30'N, 103°08'W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16'N, 104°21'W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06'N, 103°25'W, climb direct to cross 38°09'N, 103°26'W at 8000' MSL, maintain 8000' MSL right turn to 38°15'N, 103°10'W, then 8000' MSL direct 37°29'N, 102°18'W; then turn right descending to cross 37°14'N, 102°35'W at 6000' MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 35°30'N, 104°01'W to 38°06'N, 103°25'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.



Alternate Entry—Aircraft shall cross 36°19'N, 101°51'W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34'N, 102°03'W at 17,000' MSL; then descend direct to cross 36°44'N, 102°11'W at 14,000' MSL; then descend direct to cross 37°06'N, 102°27'W at 11,000' MSL; then descend direct to cross 37°20'N, 102°42'W at 6000' MSL; thence via the published route.

Route Width—The route width from 34°47'N, 104°29'W to 35°24'N, 104°08'W is reduced to 4 NM on the east side of centerline, and from 37°36'N, 103°00'W, to 38°06'N, 103°25'W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective August 13, 1966:

Location	Procedure	Action
	AUTOMATIC DIRECTION FINDING	
Burbank, Calif.—Lockheed Air Terminal	No. 1, Amdt. 2	Revised
Columbus, Neb.—Columbus Muni Arpt	No. 1, Amdt. 1	Revised
Erie, Pa.—Port Erie Arpt	No. 1, Amdt. 7	Revised
Erie, Pa.—Port Erie Arpt	No. 2, Amdt. 3	Revised
Hastings, Neb.—Hastings Muni Arpt	No. 1, Amdt. 3	Revised
Hutchinson, Kansas—Hutchinson Muni Arpt	No. 1, Amdt. 3	Revised
Louisville, Ky.—Bowman Fld	No. 1, Amdt. 5	Revised
Louisville, Ky.—Standiford Fld	No. 2, Amdt. 4	Revised
Macon, Ga.—Macon Muni Arpt	No. 1, Amdt. 12	Revised
Reno, Nev.—Reno Muni Arpt	No. 1, Amdt. 3, efctv 12 Jul 66	Cancelled
	VHF OMNIRANGE	
Chagrin Falls, Ohio—Chagrin Falls Arpt	No. 1, Orig.	Established
Danville, Ill.—Vermilion Co. Arpt	No. 1, Amdt. 2	Revised
Eau Claire, Wis.—Eau Claire Muni Arpt	No. 1, Amdt. 13	Revised
Emporia, Kansas—Emporia Arpt	No. 1, Amdt. 5	Revised
Erie, Pa.—Port Erie Arpt	No. 1, Amdt. 7	Revised
Geneva, Ohio—Germack Arpt	No. 1, Orig.	Established
Hutchinson, Kansas—Hutchinson Muni Arpt	No. 1, Amdt. 10	Revised
Merced, Calif.—Merced Muni Arpt	No. 1, Amdt. 3	Revised
San Antonio, Texas—Stinson Fld	No. 1, Amdt. 5	Revised
Toledo, Ohio—Toledo-Express Arpt	No. 1, Amdt. 3	Revised
	TERMINAL VOR	
Chico, Calif.—Chico Muni Arpt	VOR(R–290), Amdt. 1	Revised
Columbus, Neb.—Columbus Muni Arpt	TerVOR–14, Amdt. 1	Revised
Columbus, Neb.—Columbus Muni Arpt	TerVOR–32, Amdt. 2	Revised
Escanaba, Mich.—Escanaba Muni Arpt	TerVOR–9, Amdt, 3	Revised
Galesburg, Ill.—Galesburg Muni Arpt	TerVOR–2, Amdt. 1	Revised
Galesburg, Ill.—Galesburg Muni Arpt	TerVOR–20, Amdt. 1	Revised
Hastings, Neb.—Hastings Muni Arpt	TerVOR–14, Amdt. 5	Revised
Hastings, Neb.—Hastings Muni Arpt	TerVOR–32, Amdt. 4	Revised
La Verne, Calif.—Brackett Fld.	VOR(R–164), Amdt. 2	Revised
	VOR/DME	
Mansfield, Ohio—Mansfield Muni Arpt	VOR/DME #1, Amdt. 3	Revised
Toledo, Ohio—Toledo-Express Arpt	VOR/DME #1, Amdt. 2	Revised
	INSTRUMENT LANDING SYSTEM	
Hutchinson, Kansas—Hutchinson Muni Arpt	ILS–13, Amdt. 4	Revised
Hutchinson, Kansas—Hutchinson Muni Arpt	ILS–31 (Back Course), Amdt. 4	Revised
Macon, Ga.—Macon Muni Arpt	ILS–5, Amdt. 12	Revised
Rochester, N.Y.—Rochester-Monroe County Arpt	ILS–28, Amdt. 14	Revised

RADAR

Location	Procedure	Action
Everett, Wash.—Paine Field	No. 1, Orig.	**Established**
Fort Belvoir, Va.—Davison AAF	No. 2, Orig.	**Established**
Macon, Ga.—Macon Muni Arpt	No. 1, Amdt. 6	**Revised**

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective September 3, 1966:

AUTOMATIC DIRECTION FINDING

Billings, Mont.—Logan Field	No. 1, Amdt. 10	**Revised**
Billings, Mont.—Logan Field	No. 2, Amdt. 3	**Revised**
Great Falls, Mont.—Great Falls Intl Arpt	No. 1, Amdt. 9	**Revised**
Great Falls, Mont.—Great Falls Intl Arpt	No. 2, Amdt. 4, efctv 21 Aug 65	**Cancelled**

VHF OMNIRANGE

Belmar, N.J.—Monmouth County Arpt	No. 1, Amdt. 4	**Revised**
Billings, Mont.—Logan Field	No. 1, Amdt. 9	**Revised**
Colts Neck, N.J.—Colts Neck Arpt	No. 1, Amdt. 1	**Revised**
Great Falls, Mont.—Great Falls Int'l Arpt	No. 1, Amdt. 9	**Revised**
Providence, R.I.—Theodore Francis Green Arpt	No. 2, Orig., efctv 22 Jan 66	**Cancelled**
Red Bank, N.J.—Red Bank Arpt	No. 1, Amdt. 4	**Revised**

TERMINAL VOR

Columbus, Neb.—Columbus Muni Arpt	No. TerVOR-32, Amdt. 3	**Revised**
Stevens Point, Wisc.—Stevens Point Muni Arpt	No. TerVOR-3, Amdt. 1	**Revised**
Stevens Point, Wisc.—Stevens Point Muni Arpt	No. TerVOR-21, Amdt. 6	**Revised**
Stevens Point, Wisc.—Stevens Point Muni Arpt	No. TerVOR-30, Amdt. 5	**Revised**

VOR/DME

Billings, Mont.—Logan Field	VOR/DME No. 1, Amdt. 3, efctv 24 Apr 65	**Cancelled**
Billings, Mont.—Logan Field	VOR/DME No. 2, Amdt. 5	**Revised**
Franklin, Va.—Franklin Muni-John Beverly Rose Arpt	VOR/DME No. 1, Amdt. 1	**Revised**
Great Falls, Mont.—Great Falls Int'l Arpt	VOR/DME No. 1, Amdt. 1	**Revised**
Providence, R.I.—Theodore Francis Green Arpt	VOR/DME No. 1, Orig.	**Established**

INSTRUMENT LANDING SYSTEM

Billings, Mont.—Logan Field	ILS-9, Amdt. 13	**Revised**
Great Falls, Mont.—Great Falls Int'l Arpt	ILS-34, Amdt. 13	**Revised**
Milwaukee, Wisc.—Gen. Mitchell Field	ILS-7R, Orig.	**Established**
Newport News, Va.—Patrick Henry Arpt	ILS-6, Amdt. 13	**Revised**

RADAR

Bristol, Tenn.—Tri-City Arpt	No. 1, Amdt. 2	**Revised**
New York, N.Y.—LaGuardia Arpt	No. 1, Amdt. 15	**Revised**
Walla Walla, Wash.—Walla Walla City-County Arpt	No. 1, Orig.	**Established**

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	ALABAMA				
897	Gadsden	7-23-66R6			
267	Mobile (Bates Field)		7-16-66(1)	7-16-66R14	
	ALASKA				
1241	Cold Bay	7-30-66(1)			7-30-66
5166	Dillingham	8-13-66(1)			
1218	Fort Greely (Allen AAF)	8-13-66R18			8-13-66
1237	King Salmon	8-13-66(1)			8-13-66
		8-13-66DME(1)		8-13-66R11	
1193	Yakutat	8-13-66R11			
		8-13-66R29			
	ARKANSAS				
5003	Flippin	7-23-66(1)			
631	Fort Smith	7-30-66(1)			
		7-30-66DME(2)*			
	CALIFORNIA				
557	Chico (Municipal)	8-13-66Rad-290			
161	Fresno (Fresno-Chandler)	7-16-66(1)	7-16-66(1)		
5015	Hayward (Air Term.)	8-6-66(1)			
5218	LaVerne (Brackett Fld)	8-13-66Rad-164			
236	Long Beach (Daugherty)	7-30-66(1)	7-30-66(1)	7-30-66R30	
				7-30-66R12(BC)	
665	Merced	8-13-66(1)	8-13-66(1)		
281	Napa (County)	7-23-66(1)*			
294	Oakland (Intnl)	7-23-66Rad-114	7-23-66(1)	7-23-66R29	
		7-23-66DME(1)		7-23-66R11(BC)	
		7-23-66DME(2)		7-23-66R27R	
373	San Diego (Intnl-Lindbergh Field)	7-21-66R27	7-21-66(1)	7-21-66R9	
		8-6-66R27		7-21-66R27(BC)	
				8-6-66R27(BC)	
	COLORADO				
87	Colorado Springs(Peterson Field)		8-6-66(1)	8-6-66R35	
114	Denver(Stapleton Intnl)		7-30-66(2)	7-30-66R35	
				7-30-66R8R(BC)	
				7-30-66R17(BC)	
5290	Lamar	8-6-66(1)			
	CONNECTICUT				
621	Bridgeport	8-6-66R6			
		8-6-66R26			
5049	Groton (Trumbull)	8-6-66Rad-061	8-6-66(1)		
		8-6-66Rad-216	8-6-66(2)		

*New Chart

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		GEORGIA			
745	Atlanta (Fulton County)	7-23-66Rad-275	7-23-66(1)		
244	Macon (Herbert Smart)	7-21-66DME(1)*			
243	Macon		8-13-66(1)	8-13-66R5	
855	Rome (Russell Fld.)	8-6-66(1)	8-6-66(1)		
		HAWAII			
756	Hilo(General Lyman Fld)	7-30-66DME(1) 7-30-66DME(2)			
762	Kahului, Maui(Kahului)	8-13-66(1)* 8-13-66DME(2)			
776	Lihue, Kauai Island	7-30-66(1) 7-30-66(2)			
		ILLINOIS			
5117	Danville(Vermilion Co.)	8-13-66(1)			
5214	Galesburg	8-13-66R2 8-13-66R20			
5180	Mattoon-Charleston (Coles Co. Mem.)		7-23-66(1)		
		INDIANA			
5371	Connersville (Mettel)		7-23-66(1)*		
513	Evansville(Dress Mem.)	8-6-66(1) 8-6-66DME(1)	8-6-66(1)	8-6-66R21	
399	South Bend(St.Joseph Co)	7-30-66(1)	7-30-66(1)	7-30-66R27 7-30-66R9(BC)	
5282	Warsaw	7-23-66(1)			
		IOWA			
5307	Ames		8-6-66(1)		
69	Burlington	7-30-66(1)			
915	Ottumwa (Industrial)	7-30-66(1)			
		KANSAS			
962	Emporia	8-13-66(1)			
200	Hutchinson	8-13-66(1)	8-13-66(1)	8-13-66R13 8-13-66R31(BC)	
942	Salina	7-30-66(1)			
		KENTUCKY			
5059	Henderson	8-6-66(1)			
238	Louisville(Bowman Fld)	8-13-66(1)	8-13-66(1)		

*New Chart

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		LOUISIANA			
5029	Grand Isle (Seaplane)	7-23-66(1)Apch.			
		7-23-66(1)Lndg.			
288	New Orleans (Lakefront)	7-30-66(1)			
		7-30-66DME(1)			
		7-30-66(2)			
		7-30-66(3)			
884	Shreveport(Grtr)		8-6-66(1)	8-6-66R13	
		MAINE			
331	Presque Isle	7-30-66(1)			
		7-30-66DME(2)			
909	Sanford	7-23-66(1)			
		MASSACHUSETTS			
58	Boston(Logan Intnl)	8-6-66R27	8-6-66(2)	8-6-66R33L	
		8-6-66R4R	8-6-66(3)		
		8-6-66R22L			
		8-6-66R33L			
		8-6-66DME(1)			
675	Hyannis (Barnstable)	7-30-66(1)	7-30-66(1)	7-30-66R24	
654	Lawrence	7-23-66(1)*	7-23-66(1)		
659	Nantucket (Memorial)	7-30-66(1)	7-30-66(1)	7-30-66R24	
				7-30-66R6(BC)	
644	New Bedford		7-30-66(1)	7-30-66R5	
446	Westfield (Barnes)	8-6-66R20	8-6-66(1)		
		MICHIGAN			
119	Detroit(Metro.Wayne Co.)	8-6-66(1)			
		8-6-66(2)			
			8-6-66(1)	8-6-66R3L&R	
			8-6-66(2)	8-6-66R21R	
467	Detroit (Willow Run)	8-6-66R5R	8-6-66(1)	8-6-66R5R&L	
		8-6-66R23L		8-6-66R23R&L(BC)	
		8-6-66R27L			
5123	Escanaba	8-13-66R9			
5373	Gaylord(Otsego Co.)	7-23-66(1)*			
5347	Iron Mountain (Ford)	7-21-66R31*			
861	Jackson (Reynolds)		7-30-66(1)*		
		MISSOURI			
88	Columbia	7-23-66R17			
		7-23-66R35			
359	St. Joseph(Rosecrans Mem)	7-23-66(1)	7-23-66(1)	7-23-66R35	
		MONTANA			
5372	Shelby		7-23-66(1)*		

*New Chart

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	NEBRASKA				
5291	Columbus	8-13-66R14 8-13-66R32	8-13-66(1)		
5217	Hastings (Mun.)	8-13-66R14 8-13-66R32	8-13-66(1)		
5301	McCook (Municipal)	8-6-66R12 8-6-66R30			
	NEVADA				
346	Reno	7-21-66(1)	7-21-66(2)	7-21-66R34(BC)* 7-21-66R16	
	NEW HAMPSHIRE				
791	Berlin		7-23-66(1)		
868	Keene (Dillant-Hopkins)	7-23-66(1)	7-23-66(2)*		
246	Manchester(Grenier Fld.) (Manchester Mun.)	8-6-66(1) 8-6-66DME(1)	8-6-66(1)	8-6-66R35	
	NEW JERSEY				
5374	Princeton	7-23-66(1)*			
	NEW YORK				
20	Binghamton (Broome Co.)	8-6-66DME(1) 8-6-66DME(2)	8-6-66(1)	8-6-66R34	
911	Plattsburgh	7-30-66(1)	7-30-66(1)		
351	Rochester(Monroe Co.)	8-6-66R4 8-6-66R22			
806	Saranac Lake(Adirondack)	7-30-66(1)			
	NORTH CAROLINA				
463	Winston-Salem(Smith Reynolds)		7-16-66(1)	7-16-66R33	
	OHIO				
5377	Chagrin Falls	8-13-66(1)*			
5376	Geneva (Germack)	8-13-66(1)*			
860	Mansfield	8-13-66(1) 8-13-66DME(1)	8-13-66(1)	8-13-66R32	
5363	Strongsville (Airpark)	8-6-66R9			
184	Toledo (Express)	8-13-66(1) 8-13-66DME(1)		8-13-66R25(BC)	
466	Youngstown		7-30-66(1)	7-30-66R32	
	OREGON				
782	Corvallis	8-6-66R17			
330	Portland (Intnl)		7-23-66(2)	7-23-66R28R	

*New Chart

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		PENNSYLVANIA			
15	Allentown(Bethlehem-Easton)	8-6-66(1)	8-6-66(1)	8-6-66R6	
				8-6-66R24(BC)	
926	Bradford(McKean Co.)	7-30-66(2)	7-30-66(1)		
		7-30-66DME(1)			
139	Erie (Port Erie)	8-13-66(1)	8-13-66(1)		
			8-13-66(2)	8-13-66R6	
661	Wilkes-Barre (Scranton)		7-16-66(1)	7-16-66R4	
		RHODE ISLAND			
333	Providence, (Green)	7-30-66(2)	7-30-66(1)	7-30-66R5R	
		7-30-66R5L&R			
		SOUTH CAROLINA			
857	Anderson (County)	8-6-66(1)			
5375	Darlington (County)	7-23-66DME(1)*			
5124	Greer(Greenville-Spartanburg)		8-6-66(1)	8-6-66R3	
				8-6-66R21(BC)	
		TENNESSEE			
966	Dyersburg	8-6-66(1)			
218	Knoxville(McGhee-Tyson)	7-30-66(1)	7-30-66(1)	7-30-66R4L	
			7-30-66(2)		
253	Memphis(Metropolitan)	7-23-66(1)			
		7-23-66(2)			
5299	Shelbyville (Bomar Field)	7-30-66R36			
		7-30-66Rad-270			
		TEXAS			
1	Abilene (Municipal)	7-23-66(1)		7-23-66R17(BC)	
30	Austin(Robert Mueller)	7-30-66(1)	7-30-66(1)	7-30-66R30L	
				7-30-66R12R(BC)	
61	Brownsville(Rio Grande Valley Intnl)	8-6-66(1)	8-6-66(1)	8-6-66R17L	
705	Brownwood	7-23-66(1)			
106	Dallas (Love Field)		7-23-66(3)	7-23-66R31R(BC)	
			8-6-66(3)	8-6-66R31R(BC)	
369	San Antonio (Intnl)		7-23-66(1)	7-23-66R3	
			7-23-66(3)	7-23-66R12	
372	San Antonio(Stinson Mun)	8-13-66(1)			
809	Temple(Draughon-Miller)	8-6-66(1)			
439	Waco	7-23-66(1)	7-23-66(1)	7-23-66R18	
				7-23-66R36(BC)	

*New Chart

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
VIRGINIA					
5084	Dublin(New River Valley)	7-21-66(2)* 7-21-66DME(1)*			7-21-66(1)
957	Newport News(Patrick Henry)		7-23-66(1)	7-23-66R6	
WASHINGTON					
889	Hoquiam (Bowerman)	7-30-66(1)			
WISCONSIN					
262	Milwaukee(Gen.Mitchell Fld)		7-30-66(2)* 7-30-66(1)	7-30-66R19(BC) 7-30-66R1	
WYOMING					
80	Cheyenne		7-21-66(1)	7-21-66R26	
MARIANA ISLANDS					
2147	Guam I.(Andersen AFB)		8-6-66(1)	8-6-66R6R	
VIRGIN ISLANDS					
5005	Charlotte Amalie, St. Thomas(Harry S. Truman)	7-30-66(1)			
RADAR					
Radar	Pages 1-18	7-66			
	Alaska, Hawaii, U.S. Pacific Islands	7-23-66			

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* New Chart

AIRMAN'S
INFORMATION
MANUAL

FEDERAL AVIATION AGENCY

PART 3A

EFFECTIVE 0501Z 18 AUGUST 1966

To 0501Z 1 SEPTEMBER 1966

NOTICES
TO
AIRMEN

Part 3-A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necssarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and lndgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

BRANTLEY MUNI ARPT: Clsd UFN.

GADSDEN RDO: VOR 331 rad unusable beyond 38 NM.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft.

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd. VFR acft ctc Craig Twr on 126.2 for tfc and lndg advisories.

ARIZONA

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PHOENIX, SKY HARBOR MUNI ARPT: 1200′ additional rnwy avail dalgt hrs E end of rnwy 8R–26L at pilot's discretion, due engr test.

PRESCOTT RDO: DME shut down til aprxly Aug 26; VOR shut down til aprxly Aug 19 during dalgt hrs.

TUCSON RDO: VHF/DF unusable beyond 40 NM below 13,500′ MSL 345–070°, below 12,500′ MSL 070–090°.

ARKANSAS

FAYETTEVILLE RDO: FSS voice comms freqs 126.7, 121.5 mc unusable beyond 25 NM below 5500′ MSL 240–310°.

FLIPPIN ARPT: Clsd UFN due constr. (6–9)

FORDYCE MUNI ARPT: Rnwy lgts inop UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BLUE CANYON ARPT: Clsd UFN.

BORREGO SPRINGS, BORREGO VALLEY-SAN DIEGO COUNTY ARPT: Rotating bcn inop UFN.

CASTLE RDO: VOR shut down til aprxly Aug 23.

LINDEN RDO: DME shut down til aprxly Aug 23 for antenna replacement.

OAKLAND, OAKLAND INTL ARPT TWR: ILS glide slope (rnwy 27) inop.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline.

SAN CARLOS ARPT: Extensive constrn txwy and rnwys til aprxly Sept 30. Flt operns dalgt hrs only. Lgts and bcn inop UFN. Lmtd parking for transients.

SAN DIEGO, LINDBERGH FLD TWR: ILS glide slope will be relctd and VOR 109.6 ident: LIF will be inop during dalgt hrs only until aprxly Dec 15.

SAN FRANCISCO INTL ARPT: Rnwy 10R–28L clsd til aprxly Aug 23. (6–9)

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

SAN JUAN CAPISTRANO ARPT: Sep 1 thru Nov 1, constrn in progress.

SAUSALITO RDO: DME shutdown for maintenance.

TWENTYNINE PALMS ARPT: Rnwy lgts inop.

COLORADO

CORTEZ, CORTEZ-MONTEZUMA COUNTY ARPT: Clsd UFN due constr.

DENVER, STAPLETON INTL ARPT TWR: Glide slope rnwy 35 shutdown for mod til aprxly Nov 10.

DENVER, STAPLETON INTL ARPT: Apch lgts rnwy 35 inop until aprxly Oct 4.

✓GLADE PARK: Aug 18, awy bcn 65 decmsnd.

MONTROSE COUNTY ARPT: Rnwy 12–30 clsd Mon-Fri 1400–2230 til aprxly Sep 1–constrn.

TRINIDAD RDO: VHF/DF unusable beyond 40 mi below 8000′ MSL 280–120°, 9000′ MSL 120–135°, 15,000′ MSL 135–175°, 17,500′ MSL 175–220°, 14,500′ 220–280°.

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large acft including jets, also clsd for ngt operns.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P-56. See Washington, D.C. chart under Special Notices-Area in Part 3 for location.

WASHINGTON DULLES INTERNATIONAL ARPT: Until aprxly Sept 23, rnwy 1R will be shut down on day-to-day basis excp when prevailing winds favor apchs from S and wea conditions below circling minimums of 500' and 1-½ mi. Configuration A apch lgts sys will be decmsnd Sept 19 due conversion to minimum vsby apch lgt sys.

WASHINGTON NATL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying VIP or officers above rank of Major General or Rear Admiral (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C-140) (2) Sabreliner (T-39) (3) Morane Saulner 760 (4) Jet Commander (Aero Commander) (4) Learjet Model 23 (Lear Jet Co.) (6) Hawker Siddley DH-125 (7) Fan Jet Falcon (8) Caravelle (9) DC-9 (10) BAC-111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. No Turbojet acft described in paragraph B (8) through (11) may not be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda, Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: HAITI, private acft landing or overflying Haiti must furnish 48 hours advance notice and a flight plan must be filed. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

LAKELAND MUNI ARPT: Rnwy 4-22 clsd UFN.

✓LAKE CITY MUNI ARPT: Rnwy 1-19 permly clsd.

LAKE WALES, CHALET SUZANNE AIR STRIP: Clsd til late Aug.

MIAMI: Due to the lack of adequate inter center communications btn the Miami Center and adjacent CTA/FIR's and a continued increase in IFR and DVFR traffic btn points in Central America/Caribbean area and Florida, pilots on DVFR flights are advised to report to Key West FSS, Miami International FSS, Nassau Radio or Miami Aeronautical Radio Inc (ARINC) prior to penetrating the Gulf of Mexico Atlantic Coastal ADIZ: Pilots on IFR flights are advised to report to Miami Center, Miami International FSS Miami Aeronautical Radio Inc (ARINC), Key West FSS or Nassau Radio prior to entering the Miami FIR. Miami Center frequencies are: East of 79° West, 125.7/307.9; West of 79° are: 120.3/118.9/319.1, 124.4/281.4, 132.7/306.9, 127.7/362.3. Adherence to this procedure enhances identification and minimizes the possibility of being intercepted.

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

PAHOKEE RDO: VOR shutdown until aprxly Aug 17. DME shutdown til aprxly Aug 19.

PENSACOLA MUNI ARPT: ILS glide slope shut down UFN. Apch lgt sys inop.

ST. PETERSBURG RDO: Aug 31, VOR will be shutdown until aprxly Sept 2. DME will be shutdown Aug 29 til Sept 3.

SANFORD NAS RDO: Rbn inop UFN.

TAMPA FSS: Sept 1, FSS will be relctd to St. Petersburg. Name to change to St. Petersburg and ident to be "PIE". All freqs and services will remain the same.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtd 80' boom pile driver operg 1200' N apch end rnwy 27 until aprxly Dec 1, 1966. Lgtg constr in progress adj rnwy 9-27 and SE end rnwy 13-31 til aprxly Nov 1966.

WEST PALM BEACH, PALM BEACH COUNTY PARK ARPT: Rnwy 9-27 and adjacent apron areas under constr til aprxly Nov.

GEORGIA

ALMA, BACON COUNTY ARPT: Clsd to all operns til aprxly Oct 1 due constr.

COLUMBUS MUNI ARPT: Rnwy 16-34 clsd and rnwy 11-29 decreased to 3500' due constr til aprxly Nov 15.

IDAHO

IDAHO FALLS, FANNING FLD: REIL inop UFN.

POCATELLO MUNI ARPT: Rnwy 16-34 lgts inop UFN.

TWIN FALLS RDO: VOR shutdown until aprxly Sept 14.

ILLINOIS

CHICAGO-HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-O'HARE INTL TWR: ILS MM rnwy 14L shutdown until aprxly Sept 15 for rnwy constr. ILS lclzr rnwy 32R ident: IDN and glide slope and PAR apch rnwy 14L shutdown until aprxly Nov 15 for relctn.

CHICAGO-O'HARE INTL ARPT: Constr on NW end of rnwy 14L-32R in progress until aprxly Oct 10.

EAST ST. LOUIS, LAKEVIEW ARPT: Clsd UFN.

KANKAKEE, GREATER KANKAKEE ARPT: Constrn rnwy 4-22; rnwy intermittently clsd til aprxly Sept 25.

MOLINE, QUAD CITY ARPT TWR: ILS glide slope and lclzr serving rnwy 9 shutdown intermittently on day-by day basis until aprxly Oct 28.

PEORIA, MT. HAWLEY AUXILIARY ARPT: Clsd to all transient and ngt operns til aprxly Nov 1 for constrn, clsd marked on fld.

PEORIA RDO: Aug 22, DME will be shut down til aprxly Aug 26. VOR will be shut down Aug 23–24.

QUINCY MUNI-BALDWIN FLD: Rnwy lgts rnwy 17–35 inop UFN.

INDIANA

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope and MM rnwy 21 shutdown til Sept due rnwy constr.

KOKOMO RDO: VOR shutdown until aprxly Aug 17 for mod.

IOWA

CLARION MUNI ARPT: Clsd to transient acft UFN.

DES MOINES MUNI ARPT: Apch lgts and sequence flashers will be shutdown during daylgt hrs week days.

EMMETSBURG MUNI ARPT: Clsd UFN.

JEFFERSON MUNI ARPT: Tmpry ctl twr will be in opern Sep 8 and 9 from 0700 to 1800. Freqs tsmt & rcv 120.9, 121.5, rcv 122.5.

NEW HAMPTON MUNI ARPT: Clsd UFN.

RED OAK MUNI ARPT: Clsd due constrn til aprxly Oct 1.

WATERLOO MUNI ARPT TWR: ILS serving rnwy 12 shutdown UFN for relctn of lclzr.

WATERLOO MUNI ARPT: Due constr 600′ SE end of rnwy 12–30 clsd UFN, usable length of rnwy 4800′ threshold lgts will be displaced 600′.

KANSAS

GOODLAND RENNER FLD (MUNI): Rnwys 17–35, 3–21 and 8–26 clsd.

OLATHE CITY ARPT: NW/SE rnwy clsd for repairs UFN.

RUSSELL MUNI ARPT: Rnwy 16–34 clsd til aprxly Sep 27 due constrn. Arpt clsd ngt operns.

KENTUCKY

GREENVILLE, MUHLENBERG COUNTY ARPT: Rotating bcn inop UFN.

LEXINGTON, BLUE GRASS FLD: Rnwy 4–22 will be clsd nightly 2300–0700 EST, for overlay rnwy. Rnwys 15–33 and 8–26 clsd periodically during constr paving intersections.

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope (rnwy 29) shut down UFN due rnwy constrn. Lclzr will be shut down intermittently on day by day basis.

LOUISIANA

GRAND ISLE RDO: H facility shutdown until aprxly Aug 26 for replacement of cables and modulator.

NEW ORLEANS-LAKEFRONT ARPT: Mound of sand N end rnwy 35, 1200′ long 800′ wide 7′ high lgtd and mrkd. Rnwy 17, 528′ tmpry displaced threshold remain til Dec 31, 1966. 175′ boom will be operg intermittently in area apch end rnwy 4 aprxly 300′ rnwy 4 until aprxly Sept 15. Rnwy 4–22 clsd excp for tkof to NE til aprxly Sept 15. Rnwy 4 threshold displaced 700′ NE mrkd and lgtd. Rnwy length btn threshold reduced to 2500′. Rnwy 31 threshold displaced 637′ N, mrkd and lgtd. Rnwy length between threshold reduced to 3163′. Sandbard extends into Lake Pontchartrain aprxly 100′ N of apch end of seaplane ramp. Use extreme caution apchg ramp.

NEW ORLEANS INTL ARPT (MOISANT FLD): Truck operg on txwy in front of ctl twr. Use caution taxiing in this area. E/W txwy clsd from rnwy 1 aprxly 2000′ W and from firehouse to aprxly 3000′ W til aprxly Sep 30 repaving. Center txwy clsd for repaving. Lgtd by red flashing lgts. Rnwy 5–23 lgts inop UFN.

MONROE RDO: DME shut down til aprxly Aug 19.

MAINE

MILLINOCKET MUNI ARPT: Acft using rnwys 16–34 and 11–29 not visible to each other til apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4–22 and 15–33 not visible to each other until apchg intersection.

WATERVILLE, LAFLEUR ARPT: Rnwy 5 under constr being extended on SW end.

MARYLAND

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200′.

TOWSON: 10′ balloon ascending 1000′ per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BEDFORD, LAURENCE G. HANSCOM FLD: Moored balloon 5 NM SW of fld, 3000′ AGL hoisted hourly during VFR conditions dalgt hrs til Sept 20. Cable marked with small balloons.

ORANGE MUNI ARPT: Summer operns in efct Apr 1–Dec 15. Use paved areas only. All rnwys open.

WORCESTER MUNI ARPT TWR: ILS lclzr and glide slope rnwy 33 will be shutdown Aug 22 until aprxly Aug 30.

MICHIGAN

BENTON HARBOR RDO: Rbn inop UFN.

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900′ smoke stack 3 mi NW.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58′00′′N long 83°47′30′′W aprxly 8.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

ESCANABA RDO: Aug 22, VORTAC will be shutdown until aprxly Oct 13.

FLINT, BISHOP ARPT: Until Aug 31, resurfacing of rnwys in progress.

IRONWOOD, GOGEBIC COUNTY ARPT: REIL on rnwys 9, 27 inop.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000′ AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000′ AGL.

OWOSSO CITY ARPT: Obstn lgts inop on 210′ twr lctd 5 mi SE.

PELLSTON RDO: Aug 22, VOR will be shutdown until aprxly Aug 23 for mod.

SAULT STE MARIE: Daily blasting excp Sun btn hrs of 1500–1630 CST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)

MINNESOTA

DULUTH INTL ARPT: Radar portion apch and dptr ctl shutdown for maintenance.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

MINNEAPOLIS ARTCC: Radar weather advisory service is available in positive control area within the Minneapolis Center area except E of 91° 0′ long. Limited radar service for tfc ctl problem solving is available in the Minneapolis positive control area W of a line from Fargo, N.D. to Sioux Falls, S.D. Mon-Fri from 1000 CST to 2200 CST.

NISSWA, HEYWOOD GULL LAKE ARPT: Clsd UFN.

MISSISSIPPI

CROSBY MUNI ARPT: Rotating bcn inop UFN.

HATTIESBURG MUNI ARPT: Rnwys 13–31 and 8–26 clsd until Sept 1966.

JACKSON RDO: Aug 29, VOR will be shutdown until aprxly Aug 31. DME will be shutdown Aug 29 until aprxly Sept 2 for antenna changes.

MISSOURI

FARMINGTON RDO: Aug 23, DME will be shutd. until aprxly Aug 25, for replacement of antenna.

MONTANA

BILLINGS, LOGAN FLD: First 500′ rnwy 27 clsd due constrn. 8100′ avbl lndg/tkof both directions til aprxly Nov 19.

BUTTE, SILVER BOW COUNTY ARPT: Rnwy 2–20 lgts inop UFN.

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

JORDAN ARPT: Clsd when temperature 90° or higher due oil seepage.

LIVINGSTON RDO: Aug 18, DME will be shut down til aprxly Aug 26 for mod.

MISSOULA COUNTY ARPT: Rnwy 7–25 E 2534′ clsd.

NEBRASKA

COLUMBUS MUNI ARPT: Constr on 1000′ extension to NW end rnwy 14-32, NW 400′ of present rnwy tmprly clsd, usable length avbl 3600′.

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56′50′′N, long 98°31′15′′W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000′ AGL Mon-Fri 1400–2230Z until further notice.

NEVADA

ELKO RDO: DME shut down til aprxly Aug 19.

LOVELOCK, DERBY FLD: One or two moored balloons 12′ in diameter in enshrouding parachute will be operating about 17 nmi W from 8AM to 9PM local standard time until March 31, 1967. Surface to 6700′ MSL or 2500′ above test site. Balloons equipped with red flashing lights at ngts.

WELLS, HARRIET FLD: Rotating bcn inop UFN.

NEW HAMPSHIRE

LANCASTER, GRABOR ARPT: Clsd UFN—constrn.

LEBANON, REGIONAL ARPT: Rnwy 18–36 clsd due constrn.

NEW JERSEY

ATLANTIC CITY, BADER ARPT: Banner towing operns 1000-dusk til Nov 1.

ATLANTIC CITY, NAFEC/ATLANTIC CITY (POMONA) ARPT: VASI lgts operg intermittently rnwy 13 Not authorized for civil use.

LAKEWOOD ARPT: Avoid area of chicken farm lctd on 240° mag brg 6000′ from rnwy.

MORRISTOWN MUNI ARPT: Rnwy 5–23 clsd SS-SR except departing pure jets UFN.

OCEAN CITY MUNI ARPT: Open dalgt operns only. No refueling or other services available due constr UFN.

READINGTON, SOLBERG–HUNTERDON ARPT: Rnwys 1–28, 13–31, 14–32 and all grass areas closed.

NEW MEXICO

CARLSBAD: An abandoned arpt lctd adj to VOR bldg; strip dangerous—should not be used.

RUIDOSO MUNI ARPT: 700′ high terrain N. Tkofs and Go arounds hazardous on rnwy 36. All tkofs S regardless of winds.

SANTA FE RDO: VOR shut down til aprxly Aug 25. DME shutdown til aprxly Aug 26.

NEW YORK

ALBANY COUNTY ARPT: S 500′ rnwy 1–19 clsd due constrn. 4500′ avbl.

ALBANY COUNTY ARPT TWR: ILS lclzr and glide slope shut down til aprxly Nov 15 due rnwy constrn.

BUFFALO, GREATER BUFFALO INTL ARPT: Threshold clsd first 500' rnwy 5 to lndgs only 1200–2130 Mon, Wed, Fri til aprxly Aug 30.

HORNELL MUNI ARPT: Maintain 2500' MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

ISLIP, LONG ISLAND-MacARTHUR ARPT: Due constrn rnwy 6, ILS glide slope shut down til aprxly Sept 15; neon ladder apch lgt sys inop. Standard apch lgt sys, with sequence flashers will be comsnd June 1, 1967.

ITHACA RDO: Aug 15, tmpry Rbn operg til aprxly Dec 15. Lctd lat 42°29'21", long 76°27'38". Freq: 388 kc. Mag var: 10°W. Class: MHW. Aug 15, VOR shut down til aprxly Oct 1.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constrn N end rnwy.

✓MONTGOMERY, ORANGE COUNTY ARPT: Rnwy 14–32 permly clsd.

NEW YORK, LA GUARDIA ARPT: Due to constrn rnwy 13 lndg and take off length 5971'. Rnwy 31 tkof length 5971'. Rnwy 13 VASI inop UFN.

NORWICH, EATON ARPT: Clsd til aprxly Sept 1 due constrn N/S rnwy.

ROCHESTER, MONROE COUNTY ARPT: Rnwy 10–28 clsd til aprxly Sept 15. Constrn btn hrs 0700–1800, excp Sun and holidays.

NORTH CAROLINA

ASHEBORO MUNI ARPT: Clsd til aprxly Jan 25, 1967.

ASHEVILLE RDO: VOR shut down til aprxly Aug 18, DME shut down til aprxly Aug 26.

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500' pattern from the west.

NORTH DAKOTA

BEULAH ARPT: Power line across SE end NW/SE rnwy.

DICKINSON RDO: DME shut down til aprxly Aug 19 for mod.

MINOT, FLYING RANCH ARPT: Lgtg facils inop.

NEWTOWN ARPT: New arpt clsd; under constr.

WASHBURN MUNI ARPT: All lgtg facils inop.

OHIO

AKRON, CANTON ARPT: Constrn in progress rnwy or ngt up to an alt 1500' MSL. Site of operns 7½ mi 5–23 and associated txwys til aprxly Sept 1.

CINCINNATI: Moored mrkd balloon will be flown day NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

✓CINCINNATI, GREATER CINCINNATI ARPT: Rnwy 4–22 permly clsd.

CINCINNATI, GREATER CINCINNATI ARPT: Sep 9, Rnwy 18–36 will be shut down til aprxly Sep 21. Only 5500' E/W rnwy avbl all acft. New rnwy 9R–27L under constrn til aprxly Dec 1.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constrn SE end rnwy 5 until fall 1966.

DAYTON, COX DAYTON MUNI ARPT: Constrn extending N end rnwy 18–36 in progress for aprxly one year. Rnwy will be clsd intermittently.

ST. CLAIRSVILLE, ALDERMAN FLD: Rotating bcn inop.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400–2300 UFN.

OKLAHOMA

HOMINY MUNI ARPT: Clsd til aprxly Sept 30 due constrn.

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: Rnwy 17L–35R clsd all operns. (3–17)

OREGON

✓OREGON: Aug 18, ILS LMMs decmsnd at flwg arpts: Eugene, Mahlon Sweet Fld; Portland Intl, and Salem-McNary Fld.

NORTH BEND ARPT: About 12 nmi NNE a moored aluminum colored V shaped balloon 75' long, approximately 40' diameter being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

ONTARIO MUNI ARPT: Rnwy 6–24 clsd UFN.

PENNSYLVANIA

ALTOONA RDO: VORTAC shut down til aprxly Sept 18—major repairs. Tmpry Rbn comsnd during shutdown. Freq 275 kc. Class: MHW.

BUTLER, GRAHAM FLD: Extensive glider operns wkends and occasionally during week. Operns will take place off to side of rnwy UFN.

CONNELLSVILLE ARPT: Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

GREENVILLE MUNI ARPT: Clsd due constrn of paved rnwy til aprxly Oct 1.

HAZELTON RDO: Rbn inop.

MONOGAHELA, THOMPSON MEML ARPT: Clsd until aprxly Sept. 1966 due constr.

MT. POCONO ARPT: First 200' rnwy 13–31 unusable due rnwy mrkg.

✓NEW CASTLE MUNI ARPT: Rnwy 6–24 permly clsd.

PITTSBURGH. GREATER PITTSBURGH ARPT: First 500' rnwy 10R clsd due constrn til aprxly Oct 15.

TITUSVILLE ARPT: Clsd due constrn UFN.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000' from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.–Thornhurst–Wilkes-Barre.

YORK ARPT: Auto racing rnwy 16–34 Sats 1500–2400 lcl time til Sept 24. Unicom ctc required to clear rnwy.

SOUTH CAROLINA

GREENVILLE, DOWNTOWN MUNI ARPT: Until aprxly Sept 1, rnwy 36 threshold displaced 1800' N; rnwy 18 clsd lndg and tkof dalgt hrs. Rnwy 36 tkof only dalgt hrs Mon-Fri.

MONCKS CORNER MUNI ARPT: Clsd due constrn UFN.

SOUTH DAKOTA

BRITTON MUNI ARPT: Arpt clsd for rnwy constrn til aprxly Sept 1.

HURON, HOWES MUNI ARPT: N/S rnwy clsd due constrn til aprxly Sept. 1.

PIERRE MUNI ARPT: Rnwy 12–30 clsd due constrn; lgts inop UFN. Rnwy 17–35 clsd from int rnwy 12–30 to S end.; restricted to acft less than 5 tons.

REDFIELD ARPT INC: Clsd til aprxly Sept 1.

TENNESSEE

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constrn.

DYERSBURG RDO: VOR shut down til Aug 17. DME shut down til Aug 20.

HALL, LAUDERDALE COUNTY ARPT: Abandoned arpt 1 mi NW. Unmrkd and extremely hazardous—not to be used for lndgs or tkofs.

LEWISBURG, ELLINGTON ARPT: Rotating Bcn inop UFN.

ROGERSVILLE, STIPES STRIP: Clsd UFN.

TEXAS

BEEVILLE, CHASE (NAAS) FLD: Rnwy 13R–31L clsd til aprxly Oct due constrn.

BROWNWOOD MUNI ARPT: Rnwy 17–35 clsd UFN.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13–31 clsd.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

ELMDALE ARPK: New arpt clsd to all operns. Under constrn 3 mi NE Abilene Muni Arpt.

FAIRFIELD, WATSON ARPT: Rnwy lgts inop UFN.

✓GREENVILLE, MAJORS ARPT: Rnwy 8–26 permly clsd.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1–19 clsd UFN.

MIDLAND ARPK: Rnwy 7 threshold displaced 434′ for lndg rnwy 11 threshold displaced 662′ for lndg.

SULPHUR SPRINGS MUNI ARPT: Bcn and rnwy lgts inop UFN.

WICHITA FALLS, SHEPPARD AFB/WICHITA FALLS AIR TRML: N 3000′ rnwy 17–35 clsd.

UTAH

DELTA MUNI ARPT: Rnwy 16–34 clsd til aprxly mid Aug due resurfacing.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100′ higher than canyon rim.

VIRGINIA

BROOKE RDO: Aug 22, DME will be shut down til aprxly Aug 27; VOR will be shut down for 10 hrs Aug 23.

CHARLOTTESVILLE-ALBEMARLE ARPT: Constrn in progress til aprxly Oct 18. Rnwy 3 threshold tmprly displaced 400′ NE. Clsd to air carrier operns UFN. No ngt operns. Ctc FSS prior to lndg.

CHARLOTTESVILLE-ALBEMARLE ARPT: ILS lclzr inop due rnwy constrn.

CLIFDALE RDO: VOR unusable beyond 30 nmi and above 18,000′ til aprxly March 31, 1967.

DUBLIN, NEW RIVER VALLEY ARPT: First 200′ rnwy 23 unusable due rnwy extension in progress UFN.

FELKER RDO: VOR unusable excp for VFR practice use UFN.

GORDONSVILLE MUNI ARPT: Rotating bcn inop UFN.

HERNDON RDO: DME shut down til aprxly Aug 20.

WASHINGTON

✓WASHINGTON: Aug 18, ILS LMM's decmsnd at flwg arpts: Seattle-Tacoma Intl, Spokane Intl and Yakima Muni.

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800–1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

WEST VIRGINIA

HUNTINGTON RDO: Rbn inop UFN.

WHITE SULPHUR SPRINGS, GREENBRIER ARPT: Hazardous ridge across rnwy, 200′ from apch end rnwy 26. Touchdown on this ridge prohibited.

WISCONSIN

BEAVER DAM ARPT: Unsafe for lndg due rufness sod UFN.

GREEN BAY, AUSTIN STRAUBEL ARPT: Until aprxly Dec 1, constrn NE end rnwy 6–24. NE 400′ clsd; 4800′ avbl.

GREEN BAY, AUSTIN STRAUBEL ARPT TWR: ILS lclzr and glide slope shutdown UFN for relctn.

LACROSSE RDO. MHW shut down UFN.

MADISON, TRUAX FLD: Until aprxly Aug, rebuilding E/W txwy.

WYOMING

CASPER RDO: DME will be shut down Aug 29 til aprxly Sept 2. VOR will be shut down dalgt hrs during DME shutdown.

CHEYENNE RDO: VOR shut down dalgt hrs til Aug 18 for antenna change.

CODY MUNI ARPT: Rnwy 9–27 clsd occasionally due parked acft til aprxly Oct.

✓KEARNEY: Awy bcn site No. 28 permly decmsnd Aug 18.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

PUERTO RICO

SAN JUAN, ISLA GRANDE ARPT: Arpt bcn inop UFN due relctn.

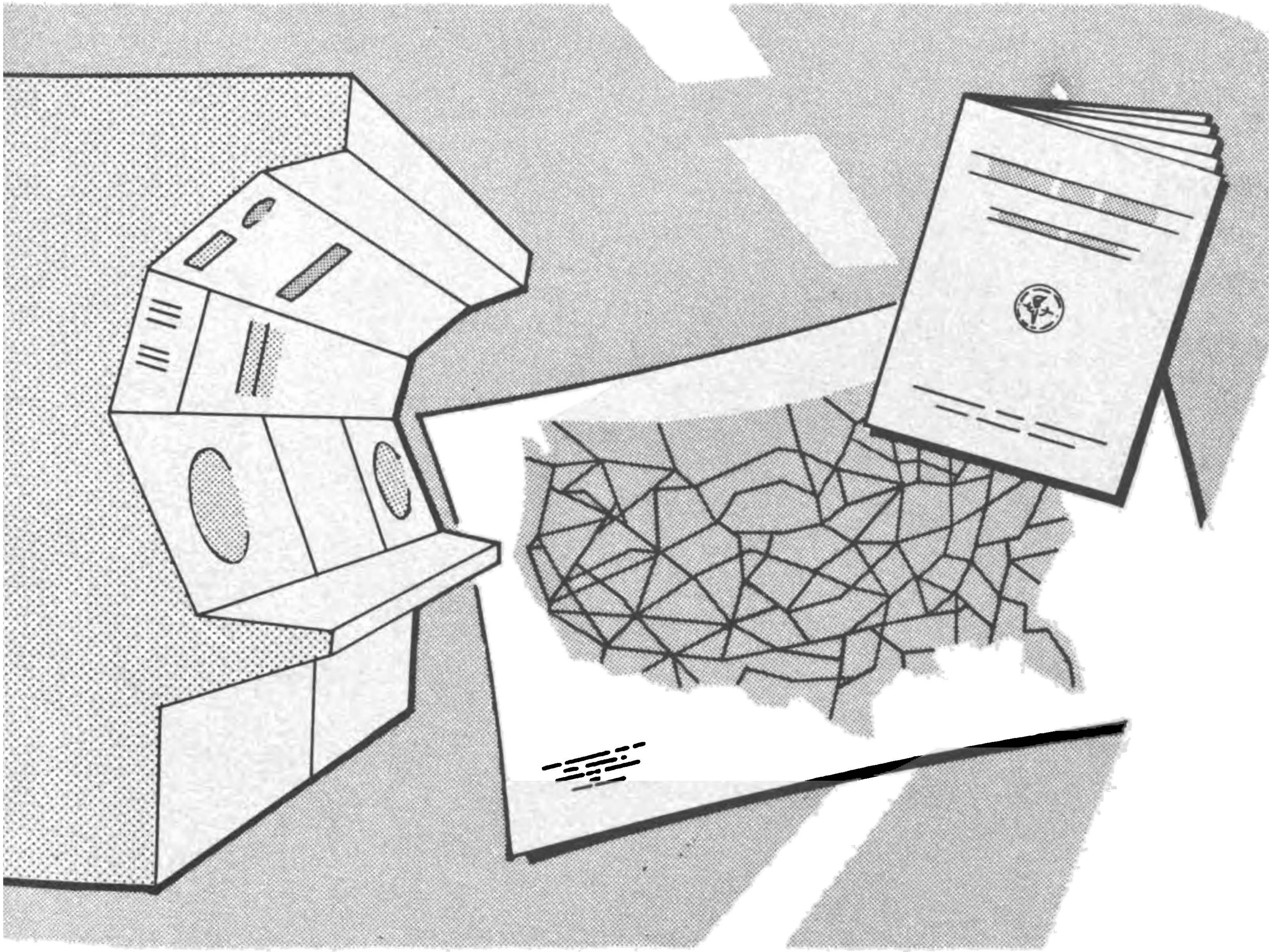
VIRGIN ISLANDS

CHARLOTTE AMALE-ST. THOMAS, HARRY S TRUMAN ARPT: Til Oct 15, constrn work in progress lengthening rnwy. Vehicles operg in apch to rnwy 9 and on N edge and E end rnwy 27. Areas mrkd and lgtd.

AIRMAN'S
INFORMATION
MANUAL

FEDERAL AVIATION AGENCY

PART 3



Effective
15 SEPTEMBER 1966
To 13 OCTOBER 1966

L710

OPERATIONAL DATA
AND
NOTICES TO AIRMEN

AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately. New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot • prefixing the heading, paragraph, or line. Highlights of each part are described below.

PART 1

Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PART 2

Airport Directory

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are open to the general public. It includes all of their facilities and services, *except communications*, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities.

Included, also, is a list of selected Commercial Broadcast Stations of 100 watts or more of power.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PARTS 3 AND 3A

Operational Data and Notices to Airmen

Part 3 is issued every 28 days and contains a Master Alphabetical Index covering all Parts of the AIM; an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Parachute Jump Areas; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Restrictions to Enroute Navigation Aids; VOR Receiver Check Points; Special General and Area Notices; New and Permanently Closed Airports, and Oil Burner Routes.

Part 3A is issued every 14 days and contains Notices to Airmen considered essential to the safety of flight as well as supplemental data to Part 3.

Annual subscription price $9.00. (Foreign mailing, $2.25 additional.)

These publications are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT–430, Washington, D.C. 20553.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

Abbreviations ---- 3-v
Address, Change of (See Notice of Editor) ---- 3-57
Airport/Facility Directory Legend ---- 3-vii
Airport/Facility Directory ---- 3-1
Airports, New and Permanently Closed ---- 3-126
Air Route Traffic Control Center Communications Frequency ---- 3-46
Boeing Low Level IFR Operations ---- 3-130
Chicago Terminal Area Chart ---- 3-123
Dates of Latest Editions (Aeronautical Charts) ---- 3-156
DME at ILS Locations ---- 3-107
Expanded Radar Service for Arriving and Departing Flights ---- 3-124
Flight Information Publication Policy ---- 3-103
FSS and Weather Bureau Telephone Numbers ---- 3-48
Low Altitude VFR Military Operations ---- 3-130
Master Alphabetical Index ---- 3-i
Military Aerial Refueling Tracks ---- 3-129
Notices to Airmen ---- See Part 3-A
Notice to Editor ---- 3-57
Oil Burner Routes ---- 3-132
Parachute Jumping Areas ---- 3-60
Part-time Controlled Airspace Designation ---- 3-106
Part-time Manned Facilities and AIDS ---- 3-108
Preferred Routes ---- 3-66
Publication Schedule ---- 3-59
Radio Class Designation ---- 3-x
Restrictions to Enroute Navigation Aids ---- 3-88
Runway Gradient ---- 3-109
Sectional Chart Bulletin ---- 3-82
Simultaneous Opposite Direction Operations on Parallel Runways ---- 3-105
Special Notices ---- 3-103
    General (Notices with universal application) ---- 3-103
    Area Notices (by state, city, etc.) ---- 3-110
Special Use Airspace ---- 3-120
Standard Instrument Approach Procedures Actions ---- 3-153
Standard Instrument Departures (SIDs) ---- 3-73
Substitute Route Structure ---- 3-76
Use of VASI ---- 3-109
VOR Receiver Check Points ---- 3-95

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetical Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. Reference involving emergency activities or procedures is printed in bold-face type. The Part number is in bold type.

A

Part and Page

Abbreviations 3-v
Address, Change of (See Notice to Editor) 3-57
ADIZ and Designation Mountainous Areas Chart 1-85
ADIZ Procedures 1-83
Advisory Information, VFR 1-72
Advisory Service, Jet 1-58
Aeronautical Advisory Stations (UNICOM) 1-74
Aeronautical (Light) Beacons 1-17
Aeronautical charts, Dates of Latest 3-156
Aeronautical Information and the National Airspace System 1-24
Aeronautical Multicom Service 1-74
Aeronautical Publications 1-48
Aeronautical Terms, Glossary of 1- 1
(AID), Airport Information Desk 3-108
AIM Publication Schedule 3-59
Aircraft Call Signs 1-21
Aircraft Fuel 2, 3
Aircraft Storage/Repair 2, 3
AIRMETS and SIGMETS 1-32
Air Navigation Radio Aids 1- 7
Airport Advisory Service (Non-Radar) 1-72
Airport, Air Navigation Lighting and Marking Aids 1-17
Airport Directory 2-1
Airport Elevation 2, 3
Airport/Facility Directory 3- 1
Airport Identifying Code 1-18
Airport, IFR 2 & 3
Airport Information Desk (AID) 3-108
Airport, Lighted Land 1-17
Airport, Lighted Water 1-17
Airport Lighting Facilities 1-17, 2 & 3
Airport Marking Aids 1-19
Airport, Military (Lighting) 1-18
Airports of Entry 1-81, 2 & 3
Airport Runway Data 2, 3
Airports, New and Permanently Closed 3-120
Air Rescue Centers 1-91
Air Traffic Control Radar Beacon System (ATCRBS) 1-16, 1-62
Airway Beacons 1-18
Airway/Route Systems 1-57
Airway/Route Course Changes 1-58
Alcohol 1-41
Altimetry 1-30
Altitudes, Traffic Pattern 2
ANRA 1-7, 3-1
Alphabet, Phonetic 1-23
Approach Control 1-74
Approach Light System, Instrument 1-18
Approach Procedures Actions, Instrument 3-153
Area Notices 3-110
Arrival 1-72
ARTCC Communications Frequencies 3-46
ATC Clearance 1-54

Part and Page

(ATIS) Automatic Terminal Information Service 1-72, 3
Auxiliary Lights 1-17

B

Beacon, Airway 1-18
Beacon, Aeronautical (Light) 1-17
Beacon, Marker 1-10
Beacon Operation, Daylight 1-18
Beacon, Radio 1- 7
Beacon, Rotating 1-17
Beacon, Standards (deviations from) 1-18
Bird Hazards 1-44
Broadcast Stations, Commercial 2-225
Bulletin, Sectional Chart 3-82

C

Call Signs, Aircraft 1-21
Call Signs, Ground Stations 1-21
Carbon Monoxide 1-42
Ceiling 1-1, 1-33
Change of Address (Notice to Editors) 3-57
Changeover Points (VOR) 1-64
Chart Bulletin, Sectional 3-82
Charts, Dates of Latest Prints 3-156
Chart, Oil Burner Route 3-132
Chart, ADIZ and Mountainous Area 1-85
Civil Use of Military Fields 3-104
Class of VOR/VORTAC/TACAN 1-9
Clear Air Turbulence 1-33
Clearance, ATC 1-54
Climbing/Descending Aircraft 1-65
Cloud Heights, Reporting of 1-33
Code, NOTAM 1-25
Collision Reporting, Near Mid-Air 1-40
Commercial Broadcast Stations 2-225
Communications, Direct Pilot/Controller 1-69
Communications, Enroute 1-66
Communications Failure 1-92
Communications Frequencies, ARTCC 3-46
Compass Locator, ILS 1-11
Composite Flight Plan (VFR/IFR) 1-49
Consolan 1-14
Contact Procedure, Radio Telephone 1-21
Continental Control Area 1-58
Crash Locator Beacon 1-90
Cruising Altitudes, Enroute 1-71

D

Departure 1-53
Departure Communications 1-53
Departure Control 1-56
Departure, Standard Instrument (SID) 1-55, 3-73
Designated Mountainous Areas chart and ADIZ 1-85
Designation, Radio Class 3-x
Detouring Thunderstorms 1-36
Direct Communications, Controllers/Pilots 1-69
Direct Flights 1-51

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Direction Finder (VHF/UHF) 1-14
Directional Reporting 1-64
Distance Measuring Equipment (DME) 1- 8
Drugs 1-41

E

Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1- 89
Emergency Signals (Visual) 1-95
Enroute 1-57
Enroute Communications 1-66
Enroute Cruising Altitudes 1-71
Entry and Departure Requirements, U.S. 1-80
Expanded Radar Service for Arriving and Departing Flights 1-73, 3-124

F

FAA and NORAD Chart 1-88
Fatigue 1-41
Figures 1-22
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-103
Flight Information Publication Policy 3-103
Flight Service Stations/Weather Bureau Offices 3-48
Flight Standard District Offices 1-96
Frequency Pairing Plan 1- 9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-93

G

General Notices 3-103
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1- 1
Good Operating Practices 1- 5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H

Hand Signals 1-79
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-217
Holding 1-60
Hypoxia 1-41

I

IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-75
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-153
Instrument Departures (SID's), Standard 1-55, 3-73
Instrument Runway 1-20
Interception Pattern for Identification of Transport Aircraft 1-87
Interception Signals, U.S. 1-86

J

Jet Advisory Service 1-58

K

Key to Aviation Weather Reports 1-36

Part and Page

L

Lake, Island and Mountain Reporting Service 1-66
Landing 1-78
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-78
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-130

M

Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-79
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-129
Mountainous Area Chart and ADIZ 1-85

N

National Search and Rescue Plan 1-90
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-126
NORAD Chart, FAA and 1-88
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-57
Notices, Area 3-110
Notices, Special 3-103
Notices to Airmen 3A

O

Oil Burner Routes 3-132
Omnidirectional Range (VOR) 1-7

P

Panic 1-43
Parachute Jumping Areas 3-60
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-106
Part-time Manned Facilities and AIDS 3-108
Permanently Closed Airports, New and 3-126
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-66
Positive Control Area 1-58
Precision Approach, Radar 1-15
Preferred Routes 3-66
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-103
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-59

R

Radar 1-15
Radar Assistance to VFR Aircraft 1-65
Radar Beacon System (ATCRBS) 1-62
Radar Controlled Approaches 1-15
Radar Enroute Service 1-59
Radar Monitoring of Instrument Approaches 1-76
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-73
Radio Beacon 1- 7
Radio Class Designation 3-x
Radio Communications Failure 1-92

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radio Interference 1-14
Radio Range L/MF 1- 7
Radiotelephone Phraseology and Techniques 1-21
Receiver Check Points, VOR 1-8, 3-95
Refueling Tracks, Military Low Altitude Aerial 3-129
REIL, Runway End Identifiers 1-19, 2, 3
Repair, Aircraft 2, 3
Reporting, Directional 1-64
Reporting Service, Lake, Island and Mountain 1-66
Restricted Airspace 1-65
Restrictions to Enroute Navigation Aids 3-88
Rocky Mountain Reporting Service 1-68
Rotating Beacon 1-17
Runway End Identifiers (REIL) 1-19, 2, 3
Runway, Longest 2, 3
Runway Marking 1-19
Runway Surface 2, 3
Runway Visibility (RVV) 1-34
Runway Visual Range (RVR) 1-34
Runway Weight Bearing Capacity 2, 3

S

Safety of Flight (Wake Turbulence) 1-37
SCANTANA Procedures 1-83
Scheduled Weather Broadcasts 1-31
Scuba Diving 1-43
Seaplane Bases 2-212
Search and Rescue 1-90
Sectional Chart Bulletin 3-82
Sectional Charts, Dates of latest prints 3-156
SIDs (Standard Instrument Departures) 1-55, 3-73
SIGMET (Significant Meteorology), AIRMETS 1-32
Signals, Emergency 1-94
Signals, (Visual), **Emergency** 1-95
Signals, Light 1-53
Simultaneous Voice Transmissions from a Single Location 1-12
Special Notices 3-103
Special Use Airspace 1-70, 3-129
Special VFR Flight Clearance Procedures 1-54
Speed Adjustment of Arriving Aircraft 1-77
Standard Instrument Approach Procedures Actions 3-153
Standard Instrument Departures (SIDs) 1-55, 3-73
Storage, Aircraft 2, 3
Substitute Route Structure 3-76
Surveillance Radar 1-15

Part and Page

T

TACAN 1- 8
Terminal Radar Service 1-74
Thunderstorms 1-36
Time 1-22
Traffic Information Service, Radar 1-73
Traffic Pattern Altitudes 2
Traffic Pattern Direction, Landing 1-78
Transcribed Weather Broadcasts 1-31
Turbulence, Clear Air (CAT) 1-33
Turbulence, Wake 1-37
Two-Way Radio Communications Failure 1-92

U

UNICOM (Aeronautical Advisory Station) 1-74, 2, & 3
U.S. Entry and Departure Requirements 1-80

V

VASI (Visual Approach Slope Indicator) 1-19
Vertigo 1-42
VFR Advisory Information 1-72
VFR Conditions on Top 1-51
VFR Flight Clearance Procedures 1-55
VHF UHF Direction Finder 1-14, 3
Visibility, Observations 1-34
Vision 1-42
Visual Approach Slope Indicator (VASI) 1-19
VOR 1- 7
VOR Changeover Points 1-64
VOR Receiver Check Points 1-8, 3-95
VORTAC 1- 8
VOT (VOR Test Signal) 1-8, 3

W

Wake Turbulence 1-37
Warning Areas 1-70
Weather 1-31
Weather Briefing 1-49
Weather Broadcasts Format 1-32
Weather Broadcast, Scheduled 1-31
Weather Broadcast, Transcribed 1-31
Weather Broadcast, Unscheduled 1-32
Weather Bureau Offices/Flight Service Stations 3-48
Weather Radar 1-34
Weather Advisories, In-Flight 1-32

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in addition to frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower (City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense Visual Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	ground controlled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend or Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical radiators), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum en-route IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

ABBREVIATIONS

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmission.
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omnidirectional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omnidirectional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (−) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, clay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S–000).

S–Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC–3), etc.

T–Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC–6), etc.

TT–Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T–).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting (when code **L4–7** is indicated, lighting **4, 5, 6, 7** is available). An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)

2—Boundary

3—Runway Floods

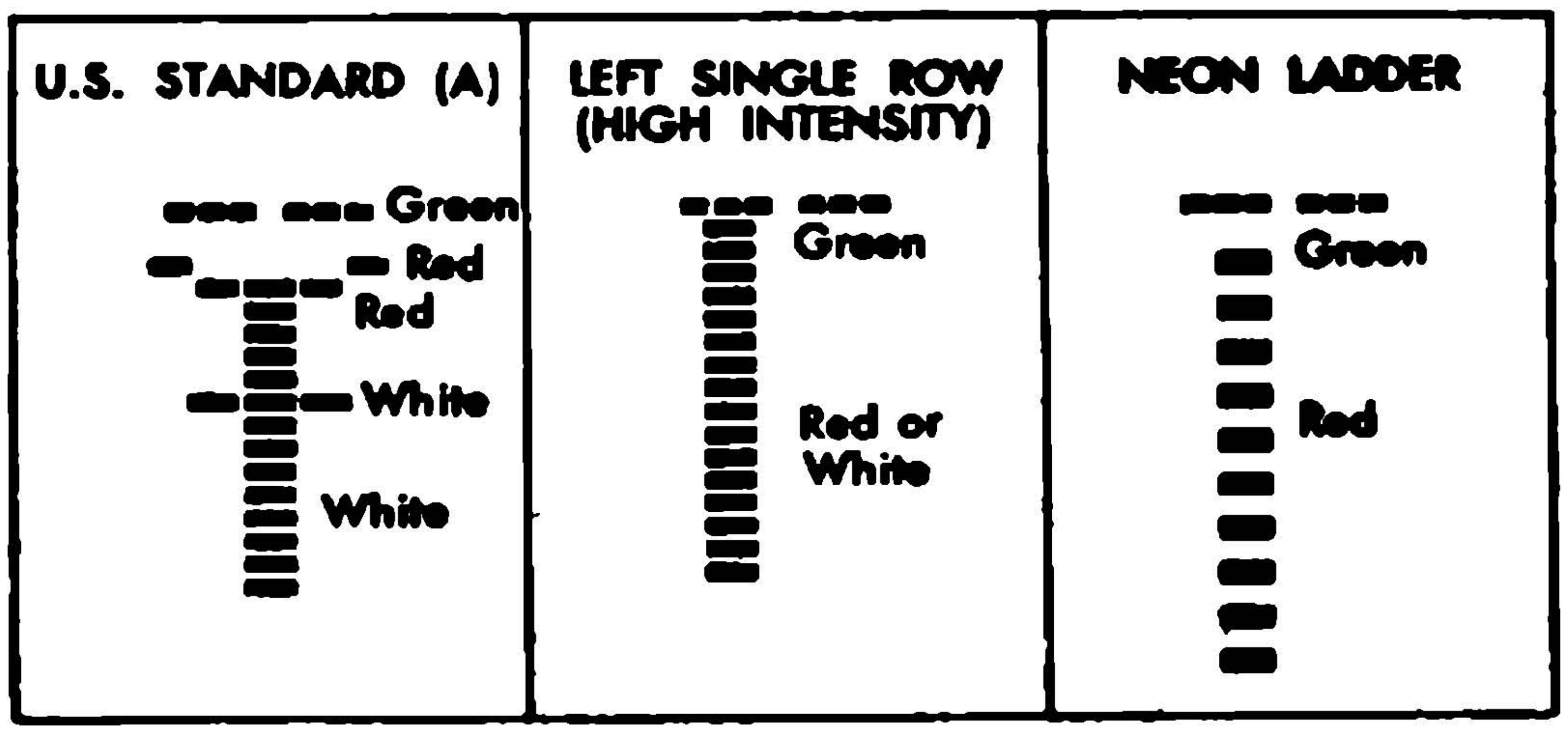
4—Low Intensity Runway

5—Medium Intensity Runway

6—High Intensity Runway

7—Instrument Approach (neon)

8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000′ out unless otherwise stated)

10—Visual Approach Slope Indicator (VASI)

11—Runway end identification lights (threshold strobe) (REIL)

12—Short approach light systems (SALS)

13—Runway alignment lights (RAIL)

14—Runway centerline

15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	80 oct., at least.
F2	80/87 oct., or lower.
F3	91/96 oct., or lower.
F4	100/130 performance rating, or lower.
F5	115/145 performance rating, or lower.

TURBINE FUELS

TP–1	650 turbine fuels for civil jets.
JP–1	(Kerosene), **JP–3, JP–4, JP–5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25–September 26 and April 25–October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.

VASI—Visual Approach Slope Indicator, applicable runway provided.

RVV—Runway Visibility Values, applicable runway provided.

RVR—Runway Visual Range, applicable runway provided.

FSS—The name of the associated FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481-5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"**FEE**" indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"**Rgt tfc 13–31**" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a cross-out: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

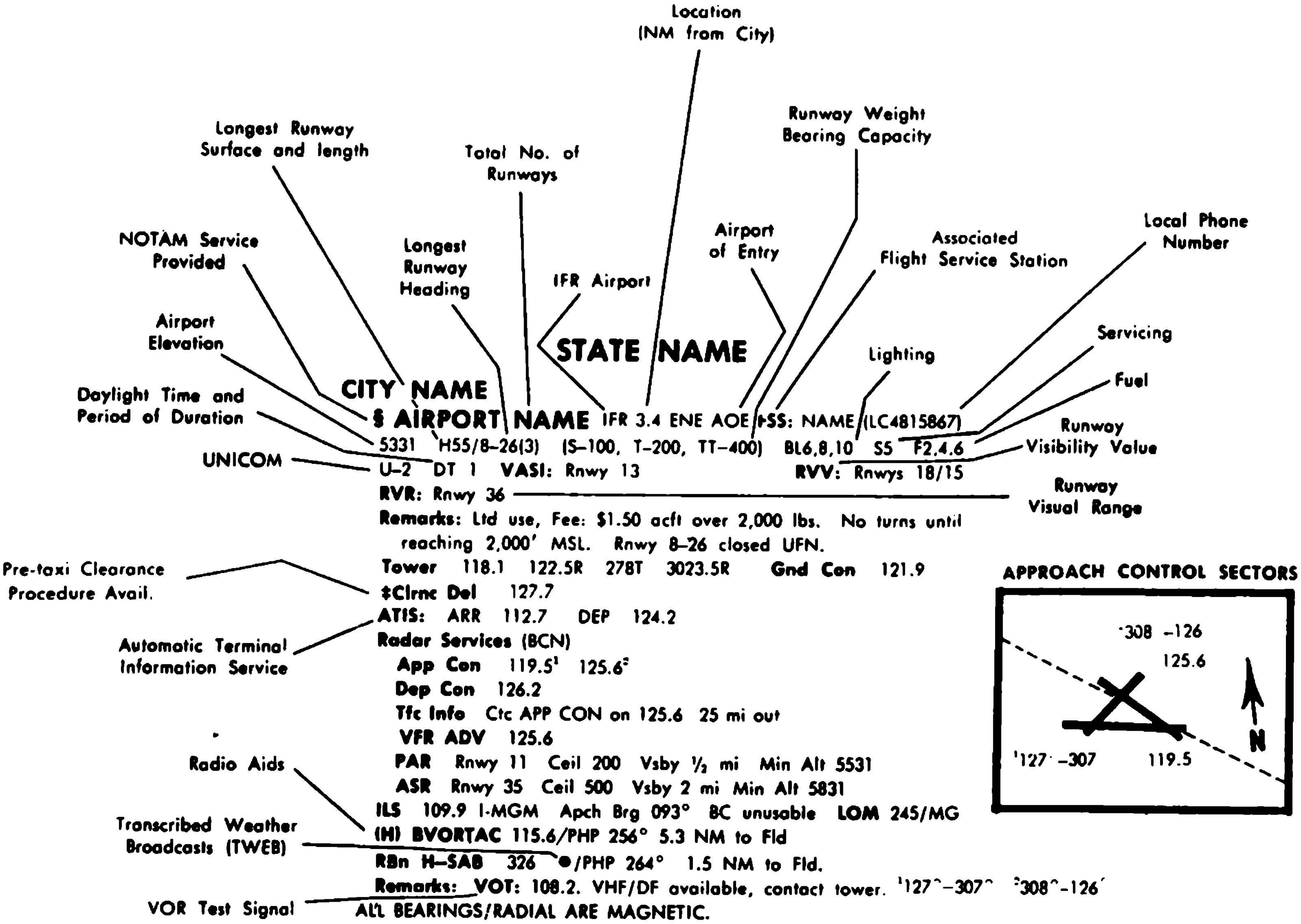
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U–1—122.8 mc (at airports without a control tower).

U–2—123.0 mc (at airports with a control tower).

SAMPLE


Location (NM from City)
Longest Runway Surface and length
Total No. of Runways
Runway Weight Bearing Capacity
NOTAM Service Provided
Longest Runway Heading
IFR Airport
Airport of Entry
Associated Flight Service Station
Local Phone Number
Airport Elevation
Lighting
Servicing
Daylight Time and Period of Duration
Fuel
Runway Visibility Value
UNICOM
Runway Visual Range
Pre-taxi Clearance Procedure Avail.
Automatic Terminal Information Service
Radio Aids
Transcribed Weather Broadcasts (TWEB)
VOR Test Signal
APPROACH CONTROL SECTORS
¹308 –126
125.6
N
¹127 –307
119.5

STATE NAME

CITY NAME

§ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC4815867)
5331 H55/8–26(3) (S–100, T–200, TT–400) BL6,8,10 S5 F2,4,6
U–2 DT 1 **VASI:** Rnwy 13 **RVV:** Rnwys 18/15
RVR: Rnwy 36
Remarks: Ltd use, Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000' MSL. Rnwy 8–26 closed UFN.
Tower 118.1 122.5R 278T 3023.5R **Gnd Con** 121.9
‡Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
App Con 119.5¹ 125.6²
Dep Con 126.2
Tfc Info Ctc APP CON on 125.6 25 mi out
VFR ADV 125.6
PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° BC unusable **LOM** 245/MG
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H–SAB 326 ●/PHP 264° 1.5 NM to Fld.
Remarks: **VOT:** 108.2. VHF/DF available, contact tower. ¹127°–307° ²308°–126°
ALL BEARINGS/RADIAL ARE MAGNETIC.

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000′ MSL	115.2 smi (100 nmi)
L	Up to 18,000′ MSL	46.06 smi (40 nmi)
T	Up to 12,000′ MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

NOTE: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiators), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600-2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

ALABAMA

ANNISTON (L) BVOR 108.8/ANB **FSS:** ANNISTON
RBn BMH [1]278/ANB
Remarks: [1]For use within 10 mi stn ADF apch only.

§BIRMINGHAM MUNI ***IFR*** 4NE **FSS:** BIRMINGHAM on fld
643 H92/5–23(2) (S–120, T–170, TT–300) BL6,8A,9,10 S5
F5, JPI, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Jet barrier on overrun rnwy 23. Rnwy 23 threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I–BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) BVORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H–SAB 224●/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H–SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM **FSS:** MOBILE

BROOKWOOD (L) BVOR 111.0/BWA **FSS:** BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU **FSS:** HUNTSVILLE

§DOTHAN ***IFR*** 7NW **FSS:** DOTHAN on fld
395 H56/18–36(3) (S–60, T–105, TT–190) BL6 S5 F4 U–1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
VFR ADV: Ctc Cairns APP/DEP CON
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF Ctc FSS.

EUFAULA (L) BVOR 109.2/EUF **FSS:** DOTHAN

GADSDEN (L) BVORTAC 112.3/GAD **FSS:** ANNISTON

HAMILTON (L) BVOR 110.4/HAB **FSS:** MUSCLE SHOALS

§HUNTSVILLE-MADISON ***IFR*** 3S **FSS:** MUSCLE SHOALS (DL)
619 H52/18–36 (2) (S–50, T–85, TT–130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I–HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF

MOBILE
§BATES FLD ***IFR*** 9W **FSS:** MOBILE on Fld
217 H78/14–32(3) (S–40, T–150, TT–280) BL4,6,8A,9 S5
F5 JP1, U2 **RVV** Rnwy 14
Remarks: Threshold displaced 1000′ NW runwy 32
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I–MOB Apch Brg 141° BC unusable **LOM:** 248/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn BH 248/MO 140° 4.6NM to fld.
Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090–110° rad. LOM is BH.

ALABAMA—*Continued*

MONROEVILLE (L) BVOR 116.8/MVC **FSS:** MOBILE

MONTGOMERY
§DANNELLY FLD ***IFR*** 6SW **FSS:** MONTGOMERY on Fld
221 H90/9–27(3) (S–120, T–170), TT–300) BL4,6,8A,9 S5
F5 JP1 U2 **RVR:** Rnwy 9
Remarks: J–Bar runwy 9–27. Closed to acft heavier than Super G Constellation and DC–7 regardless of wt displacement per wheel.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I–MGM Apch Brg 093° **LOM** 245/MG
VHF/DF Ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL **FSS:** MUSCLE SHOALS

REDSTONE (L) VOR 112.2/HUA
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM

TUSCALOOSA (L) BVORTAC 117.8/TCL **FSS:** TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE **FSS:** MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK **FSS:** PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG **FSS:** PHOENIX

COCHISE (L) BVORTAC 110.4/CIE **FSS:** DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG **FSS:** DOUGLAS

FLAGSTAFF (L) BVOR 108.2/FLG **FSS:** PRESCOTT

GRAND CANYON (L) BVOR 109.0/GCN **FSS:** PRESCOTT

GILA BEND (H) BVORTAC 116.6/GBN **FSS:** PHOENIX

LIBBY (L) VOR 111.6/FHU

PEACH SPRINGS (H) BVORTAC 112.0/PGS **FSS:** PRESCOTT

PHOENIX
§SKY HARBOR MUNI ***IFR*** 3E **FSS:** PHOENIX on Fld
1122 H103/8R–26L(2) (S–100, T–200, TT–370) BL4,10 S5
F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R–26L avbl ngts.
Phoenix Tower 118.7 122.5R 120.9 **Gnd Con** 121.9
Clrnc Del 121.9
ATIS: 120.4
Radar Services:
Phoenix App Con 119.2 124.1 115.6T
Phoenix Dep Con 118.1 120.7
Phoenix (H) BVORTAC 115.6/PHX 256° 5.3 NM to fld.
Phoenix RBn BHZ 326/PHX 264° 1.5NM to fld.
VHF/DF Ctc FSS.
Remarks: **VOT:** 109.0

PRESCOTT (H) BVORTAC 114.1/PRC **FSS:** PRESCOTT

ST. JOHNS (H) BVORTAC 112.3/SJN **FSS:** ZUNI

SAN SIMON (H) BVORTAC 115.4/SSO **FSS:** DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC **FSS:** PRESCOTT

ARIZONA—*Continued*

§TUCSON INTL ***IFR*** 6S AOE FSS: TUCSON on Fld

2630 H120/12L–30R(3) (S–100, T–200, TT–360) BL4 S5 F5, JP1, JP4 U2

Remarks: 5649′ avbl lndg rnwy 3, 6000′ avbl rnwy 21. Jet arresting gear rnwy 12L–30R. 1000′ overrun each end rnwy 12L–30R.

Tower: 118.3 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.5 134.1 126.2 125.9 125.1 122.5R

Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.

ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.

VHF/DF[1] Ctc FSS.

(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.

RBn H–SABZ 338●/TUS 083° 10.6NM to fld.

Remarks: [1] Unusable beyond 40 NM below 13,500′ MSL 345–070° below 12,500′ MSL 070–090°.

WINSLOW (H) BVORTAC 112.6/INW FSS: PRESCOTT

RBn H–SAB 266●/INW

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§YUMA MCAS/INTL ***IFR*** 3S AOE FSS: YUMA on Fld

213 H133 (3L–21R)(4) (S–103, T–225, TT–410) BL4,6 S5 F4

Remarks: Rnwy 17–35 GWT (S–170, T–200, TT–400). Jet arresting gear rnwys 3L–21R, 3R–21L.

Tower 126.2 121.5 122.5R 119.3 **Gnd Con:** 121.9

VHF/DF Ctc twr.

(H) BVORTAC 116.8/YUM 167° 6.0NM to fld.

RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH

RBn HW 311/BYH

BRUINS RBn MHW 215/BSA FSS: MEMPHIS

CABOT (L) VOR 108.4/CBT

RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT FSS: EL DORADO

DRAKE (T) BVOR 108.8/DAK FSS: FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD FSS: EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV FSS: FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP FSS: HARRISON

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§FORT SMITH MUNI ***IFR*** 4SE FSS: FORT SMITH on Fld

468 H80/7–25(2) (S–90, T–120, TT–) BL4,6,8A,9 S5 F–5, JP–1 U2 **RVV:** Rnwy 25

Remarks: Jet barrier rnwy 7–25.

Tower 118.3 126.2 122.5R **Gnd Con** 121.9

App Con 125.4 126.2 118.3 110.4T 109.5T 311T[1]

ILS 109.5 I–FSM Apch Brg 254° BC unusable **LOM:** 223/FS

(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.

RBn H–SAB 223/●FS 254° 6.9NM to fld.

Remarks: LOM is H–SAB.

HARRISON (L) BVOR 110.8/HRO FSS: HARRISON

HOT SPRINGS

§MEMORIAL FLD ***IFR*** 3SW FSS: PINE BLUFF (LC NA 4–4481)

535 H50/5–23(2) (S–35, T–49, TT–78) BL4 S5 F4 JP–1

Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7

Hot Springs App Con 120.3 122.5R 110.0T 248T

Hot Springs (L) VOR 110.0/HOT on fld.

Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK

§ADAMS FLD ***IFR*** 2E FSS: PINE BLUFF (LC FR 6–4348)

257 H70/4–22(3) (S–49, T–173, TT–136) BL4,6,8A,9 S5 F4, JP1, JP4 U2 **RVV:** Rnwy 4

Remarks Fee civil acft over 10,000 lbs.

Tower 118.7 126.2 122.5R **Gnd Con** 121.9

ARKANSAS—*Continued*

Radar Services: (BCN)

Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T

Little Rock Dep Con 118.1

Tfc Info All inbnd acft ctc App Con 25 mi out.

ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.

ILS 110.3 I–LIT Apch Brg 041° **LOM:** 219/LI

Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.

Little Rock RBn H–SAB 353●/LIT 316° 3.3NM to rnwy 32.

Remarks: [1]001–180° [2]181–360°.

MONTICELLO (L) BVORTAC 111.6/MON FSS: PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF FSS: PINE BLUFF

ROGERS RBn MHW 263/ROG FSS: FAYETTEVILLE

STUTTGART RBn MHW 269/SGT FSS: PINE BLUFF

Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK FSS: TEXARKANA

RBn SBH 329/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG FSS: WALNUT RIDGE

CALIFORNIA

ARCATA

§ARCATA-EUREKA ***IFR*** 7NW FSS: ARCATA on Fld

217 H60(2)(13–31) (S–90, T–140, TT–260) BL5,6,8A,9,10 F4 DT2

VASI: Rnwy 13 **RVV:** Rnwy 31

Remarks: Rgt tfc rnwys 13, 19.

ILS 109.5 I–ACV Apch Brg 314° BC unusable **LMM:** 233/CV

VHF/DF Ctc FSS.

Remarks: SLMM unusable btn 120–150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE FSS: PASO ROBLES

BAKERSFIELD

§MEADOWS FIELD ***IFR*** 4NW FSS: BAKERSFIELD on Fld

488 H57/12L–30R(2) (S–110, T–170, TT–300) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R

Tower 118.1 122.5R **Gnd Con** 121.9

Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8

ILS 109.9 I–BFL Apch Brg 299° **LOM:** 278/BF

VHF/DF Ctc FSS.

Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR FSS: SALINAS

BLYTHE (H) BVORTAC 117.4/BLH FSS: BLYTHE

RBn SABH 251●/BLH

BURBANK

§LOCKHEED AIR TERMINAL ***IFR*** 3NW FSS: LOS ANGELES (DL)

775 H69 (15–33)(2) (S–80, T–150, TT–280) BL5,6,8A,9,11 S5 F5, JP1, JP4 U2 DT2 **REIL** rnwy 15

Remarks: Rnwy 15 displaced threshold 900′. S 6060′ avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ lndg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15–33 lgtd N of rnwy 7–25 only.

Burbank Tower 118.7 122.7R 121.5 **Gnd Con** 121.9

Radar Services:

Burbank App Con 120.9

Burbank Dep Con 118.4

Tfc Info Ctc Burbank App Con 30 NM out on 120.9.

ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.

ILS[2] 109.5 I–BUR Apch Brg 076° **LOM:** 272/BU

VHF/DF[1] Ctc twr.

Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°–085°; below 4000′ 085°–240°; below 6000′ 240°–320°; below 10,000′ 320–360°. [2]Glide slope unusable below 1075′ MSL.

CAMARILLO RBn HW 359/CAV FSS: LOS ANGELES

CALIFORNIA—*Continued*

CASTLE (L) VOR 114.2/MER
RBn MHW 409/ME

CHICO (T) BVOR 109.8/CIC FSS: RED BLUFF

COLTON RBn HWZ 397/SB

CONCORD
§BUCHANAN FIELD *IFR* 1N FSS: OAKLAND (DL)
19 H50/1–19(3) (S–60, T–80, TT–130) BL5 S5 DT2 F4
Tower[1] 119.7 122.4R **Gnd Con** 121.9
Radar Services:
Travis App Con 119.9
T–BVOR 110.6/CCR 171° 3.1 NM to fld.
Remarks: [1]Oper 1500–0700Z.

CRESCENT CITY (L) BVORTAC 109.0/CEC FSS: CRESCENT CITY

CULVER CITY
HUGHES 3SW **REIL:** Rnwy 23 FSS: LOS ANGELES (DL)
22 H88(1) S5
Remarks: Clsd trans acft xcpt ofl bus, prior notification reqrd.
Tower: [1]132.4 126.2 123.1 122.5R
Remarks: [1]Oper 1600–0145Z

DAGGETT (L) BVORTAC 113.2/DAG FSS: DAGGETT

DOWNEY RBn HW 371/DOW FSS: LOS ANGELES

EDWARDS (L) VORW 116.4/EDW
RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ
RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW FSS: BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM FSS: LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS FSS: MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT FSS: ARCATA

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§FRESNO AIR TERMINAL *IFR* 5 NE FSS: FRESNO on Fld
332 H92/11L–29R(3) (S–50, T–70, TT–140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.
Remarks: Rgt tfc rnwy 7 & 11. Jet barrier arresting gear 11L–29R.
Tower 118.7 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.6 126.9
Dep Con 126.9
ILS 110.3 I–FAT Apch Brg 289° **LOM:** 266/FA
VHF/DF Ctc FSS.
(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.
RBn H–SAB 344●/FAT 049° 6.2 NM to fld.

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§FRESNO–CHANDLER *IFR* 2W FSS: FRESNO (DL)
283 H35/11R–29L(2) (S–17 T–TT–) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 11R. Rnwy 29L threshold displaced 730′ NW, rnwy 11R displaced 495′ SE.
Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7
Radar Services: (BCN)
Fresno App Con 119.6 126.9
Fresno Dep Con 126.9
Remarks: [1]Oper 1400–0600Z.

FRIANT (L) BVORTAC 115.6/FRA FSS: FRESNO

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§FULLERTON MUNI *IFR* 3W FSS: LOS ANGELES (DL)
96 H31/6–24(1) (S–8, T–, TT–) BL5,11 S5 F4 U2 DT2
REIL: Rnwy 24.
Remarks: Rnwy 6 threshold displaced 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 threshold displaced 263′ W. 2857′ avbl lndg rnwy 24. Rgt tfc rnwy 24. Entry alt 1200′ MSL. P-line NE. Overngt tiedown fee. Prior approval acft over 12,500 GWT and single eng acft 1000 or more hp.

Tower[1] 119.1 122.6R 121.5 **Gnd Con** 121.7
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
Remarks: [1]Oper 1400–0600Z.

GAVIOTA (L) BVORTAC 116.5/GVO FSS: SANTA BARBARA

GEORGE (L) VOR 108.6/VCV

GOFFS (L) BVOR 114.4/GFS FSS: NEEDLES

GORMAN (L) BVORTAC 116.1/GMN FSS: BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

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§HAWTHORNE MUNI *IFR* 1E FSS: LOS ANGELES (DL)
64 H45/7–25(1) (S–30, T–50, TT–) BL4,11 S–5 F4 U2 DT2
REIL[1] Rnwy 25
Remarks: Rnwy 7 threshold displaced 1025′ E, 3975′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 475′ W. 4525′ avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. P-line NE. Rgt tfc E. [1]REIL inop 2300–0700. Prior approval rqrd jet powered acft.
Tower[1] 121.1 122.5R 121.5 **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 124.3[2] 125.2[3]
Remarks: [1]Oper 0700–2300 lcl time. [2]045°–224°. [3]225°–044°.

HAYWARD AIR TERMINAL *IFR* , 2SW FSS: OAKLAND (LC 562–7807)
46 H52/10R–28L(2) (S–100, T–190, TT–290) BL4 S5 F4 DT2
Remarks: Rnwy 22 threshold relctd 1850′ SW; rnwy length 3150′. TPA 600′ excp rnwy 10L–28R 800′.
Tower 118.9 122.5R 212T **Gnd Con** 121.7
Radar Services:
Oakland App Con 118.1 116.8T
Oakland Dep Con 124.7 120.9 116.8T
RBn MHW 242/HWD 243° 4 NM to fld
Remarks: [1]Oper 0600–2400 lcl time.

HECTOR (H) BVORTAC 112.7/HEC FSS: DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL FSS: IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI FSS: SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS FSS: PALMDALE

LA VERNE
BRACKETT FLD *IFR* 1SW FSS: ONTARIO (DL)
997 H40/8–26(1) BL4 S5 U2 DT2
Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.
Tower[1] 118.2 122.7R 121.5 **Gnd Con** 121.7
VFR ADV: Ctc March APP CON 120.8, 122.5R/DEP CON 125.5, 122.5R
Remarks: [1]Oper 0700–2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN FSS: STOCKTON

LONG BEACH *IFR* 3NE FSS: LOS ANGELES (DL)
§LONG BEACH (Daugherty Fld)
58 H100/12–30(5) (S–65, T–110, TT–180) BL4,6,8A,10,11,12 S5 F5, JP1, JP4 U2 DT2 **RVR:** Rnwy 30.
Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R 25R, 34R.
Long Beach Tower 119.5[1] 120.5[2] 126.2[2] 122.4R[1] **Gnd Con** 121.9
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558
ILS 110.3 I–LGB Apch Brg 300° **LOM** 233/LG
VHF/DF[1] Ctc twr.

CALIFORNIA—*Continued*

(L) BVORTAC 115.7/LGB 274° 4.4NM to fld
Remarks: [2]For all right rnwys. **VOT:** 109.0

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§LOS ANGELES INTL *IFR* 9SW **FSS:** LOS ANGELES on Fld
126 H120/7R–25L(4) (S–100, T–180, TT–340)
BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R
RVV: Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R
Remarks: Rnwy 34 threshold displaced 1679′ N. Rnwys 25L, 25R thresholds displaced 600′ W. Rnwy 16–34 (S125 T200+ TT400+).
Tower 118.9 125.8 123.7[1] 122.7R **Gnd Con** 121.6 121.8
‡Clrnc Del 126.85 121.4
ATIS: 108.5
Radar Services:
App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Dep Con 125.2[2] 124.3[3]
Tfc Info ctc App Con 30 mi out.
PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.
ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426
ILS[4] 109.9 I–LAX Apch Brg 248° **LOM:** 266/LA
VHF/DF ctc twr.
(H) BVORTAC 113.6/LAX at fld.
RBn SABH 332●/LAX 245° 3.4 NM to fld.
Remarks: [1]Heli Operns. [2]035–224° [3]225–044° [4]Glide slope unusable below 300′ MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)
§VAN NUYS *IFR* 3NW **FSS:** LOS ANGELES (DL)
800 H80/16R–34(2) (S–70, T–120, TT–210) BL5,11 S5 F4 JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R
Remarks: Rnwy 16R threshold displaced 1376′ S. 6624′ avbl lndg rnwy 16R. Rnwy 16L–34R daylgt use only. Rnwy 16L threshold displaced 1432′ S. 2568′ avbl lndg rnwy 16L. Parallel 2000′ strip bet 16L–34R and 16R–34L clsd except emerg.
Tower 120.3[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7
ATIS:[1] 113.1
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
(L) VOR 113.1/VNY on fld.
Remarks: [1]Oper 0600–2200 lcl time. [2]360–149° and departure rnwy 16L–34R. [3]150–359° and departure rnwy 16R–34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN **FSS:** FRESNO

MARYSVILLE (T) BVOR 110.8/MYV **FSS:** MARYSVILLE

MATHER (L) VORM 114.6/MHR

MAXWELL (L) BVORTAC 110.0/MXW **FSS:** MARYSVILLE

McCLELLAN RBn MHW 395/MCC

MODESTO
§CITY-COUNTY *IFR* 2 SE **FSS:** STOCKTON (DL)
96 H50 (2) BL4 S5 F4 DT2
Remarks: Rgt tfc rnwys 11R, 29R.
Tower[1] 120.0 122.7R **Gnd Con** 121.7
Modesto (T) BVOR 108.4/MOD
Remarks: [1]Oper 1400–0600Z.

MONTAGUE
SISKIYOU COUNTY *IFR* 4NE **FSS:** MONTAGUE ON FLD
2651 H75(1) (S90 T120 TT175) BL4 S5 F4 DT 2
Tower 126.2 118.7T 122.5R
Montague RBn BH 382/SIY

CALIFORNIA—*Continued*

§MONTEREY PENINSULA *IFR* 3SE **FSS:** SALINAS (DL)
220 H50/10–28(2) (S–40, T–70, TT–120) BL5,6,8A,9 S5 F5, JP1 U2 DT2
Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.
Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9
Monterey App Con 120.8
Monterey Dep Con 120.8
ILS[1] 110.1 I–MRY Apch Brg 096° **LOM:**[2] 281/MR
Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130–150°.

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§NAPA COUNTY 5S **FSS:** OAKLAND (DL)
33 H53/18–36(2) BL4 S5 F4 DT2
Tower[1] 118.8 122.7R **Gnd Con** 121.7
(L) BVORTAC 112.1/APC
Remarks: [1]Opers 0700–2300 lcl time.

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON L) VORW 117.6/SBD
RBn MHW 347/BD

OAKLAND
§ OAKLAND INTL *IFR* 4S **FSS:** OAKLAND on Fld
6 H100/11–29(4) (S–100, T–160, T–290) BL6, 8A,9,14,15 S5 F5, JP1, JP4 U2 DT2
RVV: Rnwy 27R **RVR:** Rnwy 29
Remarks: Rnwy 33 threshold displaced 2113′ N. Rgt tfc rnwys 27R, 9R, 33 & 11. Overngt tiedown fee.
Oakland Tower 118.3 126.0 122.6R 116.8T
Clrnc Del 121.1
Gnd Con 121.9 121.6
ATIS: 108.7 109.9
Radar Services: (BCN)
Oakland App Con 118.1[1] 116.8T 120.9[2]
Oakland Dep Con 124.7
Tfc Info Call App Con 25 mi out.
PAR[4] Rnwy 29 Ceil 200 Vsiby ½ mi Min Alt 206
ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.
ILS 108.7 I–INB Apch Brg 293° **LOM:** 266/IN
109.9 I–OAK Apch Brg 275° BC unusable
VHF/DF[3] Ctc twr.
Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.
Oakland RBn SABH 362●/OAK on fld.
Remarks: [1]271–090° 090–270° [3]Unusable below 6000′ MSL 360–050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

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§ONTARIO INTL *IFR* 2E **FSS:** ONTARIO on Fld
952 H100/7–25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 1000′ on W end. 1000′ overrun E end rnwy 7–25.
Tower 118.5 122.5R **Gnd Con** 121.9
Clrnc Del 120.6
Radar Services: (BCN)
March App Con 120.8 122.5R 111.4T
March Dep Con 125.5 122.5R
ILS 109.7 I–ONT Apch Brg 255° **LOM:** 227/OM
(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VORTAC 111.2/OAF

OXNARD
§VENTURA COUNTY *IFR* 1W **FSS:** SANTA BARBARA (DL)
43 H59/7–25(1) (S–36, T–48 TT–75) BL4,11 S5 F4, JP4 U2 DT2 **REIL** rnwy 25.
Remarks: Rnwy 25 threshold displaced 1377′ W. 4570′ avbl

CALIFORNIA—*Continued*

lndg rnwy 25. Rnwy 7 threshold 750′ E. 5197′ avbl lndg rnwy 7.
Tower 120.7 122.4R ~~121.5~~ **Gnd Con** 121.9
Oxnard App Con 124.7 122.5R
Oxnard Dep Con 124.7
Ventura (L) BVORTAC 108.2/VTU
Remarks: [1]Opers 0600–2200 lcl time.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF
RBn SABH 338/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

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§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)
816 H46/9–27(2) BL5, 11 S5 F4 U2 DT2 **REIL:** Rnwy 27
Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.
Tower[1] 121.0 122.6R ~~121.5~~ **Gnd Con** 121.7
VFR ADV Ctc March App Con 120.8 122.5R/Dep Con 125.5 122.5R
(T) VOR 111.4/RAL
Remarks: [1]Opers 0600–2200 lcl time.

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§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld
21 H60/2–20(3) (S–90, T–120, TT–180) BL4,6 8A, 9 S5 F4, TP–1 U2 DT2 **RVV:** Rnwy 2
Remarks: Antenna NNW. 2200′ apch lgtg rnwy 2. Perimeter txwy to rnwy 30 not visible from twr, ctc twr when number one for dptr.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS: 110.3
Radar Services: (BCN)
App Con 119.1 125.2 121.0 122.5R
Dep Con 124.5
VHF/DF Ctc FSS.
ILS 110.3 I–SAC Apch Brg 016° **LOM:** 356/SA
(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO (H) BVORTAC 117.8/SAN **FSS:** SAN DIEGO

SAN DIEGO

§MONTGOMERY FLD 6N **FSS:** SAN DIEGO (LC 296–3181)
423 H34/10–28(2) (S30– T–, TT–) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwys 5, 10.
Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9
Remarks: [1]Opers 0700–2300 lcl time

§SAN DIEGO CO–GILLESPIE FLD 10NE **FSS:** SAN DIEGO (LC 296–3181)
385 H53(9–27(2) (S–67, T–113, TT) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl lndg rnwy 27. Rnwy 17–35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.
Gillespie Tower[1] 120.7 122.7R **Gnd Con** 121.7
Remarks: [1]Oper 0700–2300 lcl time

§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE **FSS:** SAN DIEGO (LU 296–3181)
15 H87/9–27(2) (S–100, T–200, TT–400) BL5,6,8A,9,11 S–5 F5, JP1 U2 DT2 **REIL:** Rnwy 27
Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl lndg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions. Twr unable to see ramp area W of the Ryan Aero Plant and S of the parallel txwy.
Tower 118.3 122.4R 109.6T **Gnd Con** 121.7
Radar Services: (BCN)
San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T
San Diego Dep Con 125.7[3] 125.3[4]
Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I–SAN Apch Brg 092° **LOM:** 278/SA
Lindbergh (L) BVOR 109.6/LIF on fld.
Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

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§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)
12 H97(10L–28R) (4) (S–200, T–200, TT–400) BL6,8A,9,10,11,12 S–5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVV:** Rnwy 19 **RVR:** Rnwy 28R
Remarks: Rnwy 28R threshold displaced 200′ NW. 9496′ avbl lndg rnwy 28R. Rnwy 1R threshold displaced 1100′ NE. 8400′ avbl lndg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop.
Tower 120.5 122.7R **Gnd Con** 121.8
‡Clrnc Del 121.4
ATIS: 111.2
Radar Services:
App Con 124.9[1] 119.3[2] 111.2T 109.5T
Dep Con 124.4 128.5
Tfc Info Ctc OAK app con 0600–1400 for trml radar service.
PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.
ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412.
Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512
ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF
VHF/DF Ctc twr.
(L) VOR 111.2/SFO at fld.
RBn MHW 275/SIA 191° 0.6 to rnwy 19L.
Remarks: [1]315–134°, [2]135–314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0 unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

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§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)
56 H78/12R–30L (2) (S–100, T–150, TT–230) BL6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30L
Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl lndg rnwy 30L. Twr unable to see NE tfc patn. Displaced threshold clsd to acft over 12,500 lbs.
Tower 120.7[2] 122.4R 124.0[1] **Gnd Con** 121.7
ATIS[3] 108.2
Radar Services: (BCN)
***Moffett* App Con** 120.1 123.7 122.4R 110.9T 108.2T
***Moffett* Dep Con** 121.3 122.4R 108.2T
Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
(L) VOR 108.2/SJC on fld.
Remarks: [1]Rnwys 30L–12R [2]Rnwys 30R–12L [3]Opers 0800–2000 lcl time

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SAN LUIS OBISPO (L) BVORTAC 112.4/SBP **FSS:** PASO ROBLES

CALIFORNIA—*Continued*

SANTA ANA
§ORANGE COUNTY ***IFR*** 4 S **FSS:** LOS ANGELES (DL)
53 H57/1L-19R(2) (S-68, T-95, TT-170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.6~~ **Gnd Con** 121.7
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

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§SANTA BARBARA MUNI ***IFR*** 7 W **FSS:** SANTA BARBARA on fld
14 H50/7-25 (2) (S-40, T-71, TT-117) BL5,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 7-25 overrun unlgtd. Rnwy 25 threshold displaced 296′ E end rnwy 25, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I-SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC **FSS:** LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX

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§SANTA MONICA MUNI ***IFR*** 3 E **FSS:** LOS ANGELES (DL)
175 H50/3-21 (1) S-80, T-120, TT-220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[3] 120.1 122.6R 121.5 **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[1] 124.5[2] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°-225°, [2]225°-044° [3]Oper 0700–2300 lcl time. **VOT:** 110.2. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§SONOMA COUNTY ***IFR*** 6 NW **FSS:** UKIAH (DL)
125 H50/14-32(2) (S-80, T-130, TT-220) BL4 S5 F4 U2 DT2
Remarks: Attended days.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU **FSS:** OAKLAND

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§STOCKTON METROPOLITAN ***IFR*** 3S **FSS:** STOCKTON on fld
27 H86/11L-29R(4) (S-100, T-200, TT-400) BL6,8A,9,12 S5 F4 TP1 U2 DT2 **RVV:** Rnwy 29R
Remarks: 1500′ apch lgt sys rnwy 29R.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I-SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§LAKE TAHOE 2SE **FSS:** SACRAMENTO (DL)
6263 H85/18-36(1) BL4, 5 S5 F4 JP1 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 36. Rnwy 36 threshold displaced 2040′. UNICOM opers dalgt hrs only.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR 113.2/LTA
Remarks: [1]Opers 0700–2300 lcl time

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

CALIFORNIA—*Continued*

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§TORRANCE MUNI ***IFR*** 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L-29R(2) (S-30, T-50, TT-80) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L-29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 118.1 124.0 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 127.2
Remarks: [1]Oper 0600–2200 lcl time. [2]045°-224°. [3]225-044°.

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

BUCKLEY (T) VOR 112.7/BKF

COLORADO SPRINGS
§PETERSON FIELD ***IFR*** 6 SE **FSS:** DENVER (LC 634-3127)
6172 H110/17-35(3) (S-100, T-200, TT-400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17-35. 1000′ overrun each end rnwy 17-35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I-COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] Ctc twr.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340-055° and 15 nmi 245-270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER
§STAPLETON INTL ***IFR*** 4 E **FSS:** DENVER on Fld
5331 H115/17-35(3) (S-120, T-200, TT-350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: Twr unable to determine whether acft on correct final apch to rnwys 8L-8R and 26L-26R. Rnwy 17-35 clsd every Mon and Thurs 1430–1630Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3
Radar Services: (BCN)
Denver App Con 119.3[1] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831

COLORADO—*Continued*

ILS 110.3 I-DEN Apch Brg 257° **LOM:** 362/DE
108.1 I-SPO Apch Brg 350°
VHF/DF Ctc twr
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270-089°. [2]090-269°. **VOT:** 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC **FSS:** FARMINGTON

DURANGO (L) BVOR 108.2/DRO **FSS:** FARMINGTON

ENGLEWOOD RBn H-SAB 379●/EWD **FSS:** DENVER

GILL (L) BVORTAC 108.8/GIL **FSS:** DENVER

GRAND JUNCTION
§WALKER FIELD *IFR* 3NE **FSS:** GRAND JUNCTION on Fld
4857 H75/11-29(2) (S-60, T-80, TT-120) BL2,4,5,6,11,12
S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I-GJT Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[3] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable below 5132'. [3]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC **FSS:** GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO **FSS:** LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC **FSS:** DENVER

KREMMLING (H) BVORTAC 113.8/RLG **FSS:** EAGLE

LAMAR (H) BVORTAC 116.9/LAA **FSS:** LA JUNTA

MEEKER (H) BVORTAC 115.2/EKR **FSS:** EAGLE

PETERSON (L) VORW 109.0/PEF

§PUEBLO MEML *IFR* 5E **FSS:** PUEBLO on Fld
4725 H85/7-25(3) (S-100, T-130, TT-200) BL4,6,8A,9 S5 F4
TP1 **RVV:** Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12-30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I-PUB Apch Brg 075° **LOM:** 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC **FSS:** AKRON

TOBE (L) BVORTAC 115.8/TBE **FSS:** TRINIDAD

TRINIDAD RBn SABH 329●/TAD **FSS:** TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI *IFR* 3SE
FSS: WINDSOR LOCKS (LC ED 5-6097)
9 H47 (11-29(3) (S-36.5, T-55.5, TT-) BL5,6 S5 F5 JP1, JP4
U2 DT2
Remarks: Apch to rnwys 16, 29 blkd by trees.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON **FSS:** PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI-3-3245)
Remarks: [1]Oper by State.

HARTFORD (L) BVORTAC 114.9/HFD **FSS:** WINDSOR LOCKS
RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD **FSS:** WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN **FSS:** WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW **FSS:** PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT **FSS:** WORCESTER

CONNECTICUT—*Continued*

WINDSOR LOCKS
§BRADLEY FIELD *IFR* 3W **FSS:** WINDSOR LOCKS on Fld.
173 H95/6-24(3) (S-157, T-200, TT-400) BL5,6,8A,9,10,14,15 S5
F5, JP4,5 U2 DT2 **VASI:** Rnwy 33
Remarks: Rnwy 6-24 A-Gear both ends.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I-BDL Apch Brg 058° **LOM:** 388/BD
Remarks: Glide slope rnwy 6 unusable below 373'.

DELAWARE

DOVER (T) VOR 108.4/DOV
Remarks: Unrel 035-065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO **FSS:** MILLVILLE

WATERLOO (L) BVORTAC 112.6/ATR **FSS:** SALISBURY

WILMINGTON
§GREATER WILMINGTON *IFR* 4S **FSS:** MILLVILLE (LC 652-5419)
79 H70/1-19(4) (S-200, T-300, TT-500) BL4,6,8A,9 S5
F4, JP1 U2 DT2 **RVR:** Rnwy 1.
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5-23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125.0 110.3T
ILS 110.3 I-ILG Apch Brg 014° BC unusable **LOM:** 248/IL
VHF/DF Ctc twr.
New Castle (L) BVORTAC 114.0/EWT 067° 0.5 nmi to fld.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON
§DULLES INTL *IFR* 21W **FSS:** WASHINGTON (DL)
313 H115/(1L-19R)(3) (S-200, T-290, TT-500) BL6,8A,9,10,14,15
S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R
Remarks: RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.4
Radar Services: (BCN)
App Con 119.2 126.1
Dep Con 125.55
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I-DLX Apch Brg 186°
109.3 I-DIA Apch Brg 006° **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

§WASHINGTON NATIONAL *IFR* 3S **FSS:** WASHINGTON on Fld
15 H69/18-36(3) (S-100, T-200, TT-400) BL4,6,8A,9,10,11,14,15
S5 F5,JPI U2 DT2 **VASI:** Rnwys 15, 18 **RVV:** Rnwys 18, 15
RVR: Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18
Remarks: Very limited parking. Caution turbulence apch ends rnwys 21, 33 and 36.
Tower 119.1 122.5R **Gnd Con** 121.7
‡Clrnc Del 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[3] 127.0[1] 122.5R 128.8 109.9T
Dep Con 118.1[1] 126.55[3]
Tfc Info: Expanded radar service avbl: Arr 119.3 Dep 118.3
PAR[3] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I-DCA Apch Brg 003° BC unusable **LOM:** 332/DC

CALIFORNIA—*Continued*

SANTA ANA
§ORANGE COUNTY *IFR* 4 S FSS: LOS ANGELES (DL)
53 H57/1L–19R(2) (S–68, T–95, TT–170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

§SANTA BARBARA MUNI *IFR* 7 W FSS: SANTA BARBARA on fld
14 H50/7–25 (2) (S–40, T–71, TT–117) BL5,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 7–25 overrun unlgtd. Rnwy 25 threshold displaced 296′ E end rnwy 25, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I–SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC FSS: LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX

§SANTA MONICA MUNI *IFR* 3 E FSS: LOS ANGELES (DL)
175 H50/3–21 (1) S–80, T–120, TT–220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[3] 120.1 122.6R 121.5 **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[1] 124.5[2] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°–225°, [2]225°–044° [3]Oper 0700–2300 lcl time. **VOT:** 110.2. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§SONOMA COUNTY *IFR* 6 NW FSS: UKIAH (DL)
125 H50/14–32(2) (S–80, T–130, TT–220) BL4 S5 F4 U2 DT2
Remarks: Attended days.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU FSS: OAKLAND

§STOCKTON METROPOLITAN *IFR* 3S FSS: STOCKTON on fld
27 H86/11L–29R(4) (S–100, T–200, TT–400) BL6,8A,9,12 S5 F4 TP1 U2 DT2 **RVV:** Rnwy 29R
Remarks: 1500′ apch lgt sys rnwy 29R.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I–SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§LAKE TAHOE 2SE FSS: SACRAMENTO (DL)
6263 H85/18–36(1) BL4, 5 S5 F4 JP1 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 36. Rnwy 36 threshold displaced 2040′. UNICOM opers dalgt hrs only.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR 113.2/LTA
Remarks: [1]Opers 0700–2300 lcl time

THERMAL (H) BVORTAC 116.2/TRM FSS: THERMAL

CALIFORNIA—*Continued*

§TORRANCE MUNI *IFR* 3 SW FSS: LOS ANGELES (DL)
101 H50/11L–29R(2) (S–30, T–50, TT–80) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L–29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy 11L–29R. Rnwy 11R–29L open 6 am to 10 pm. Rnwy 11L–29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 118.1 124.0 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 127.2
Remarks: [1]Oper 0600–2200 lcl time. [2]045°–224°. [3]225–044°.

TRAVIS (L) VOR 116.4/SUU FSS: SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP FSS: THERMAL

UKIAH (H) BVORTAC 112.3/UKI FSS: UKIAH

VANDENBERG (L) VOR 111.8/VBG

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA FSS: MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI FSS: OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO FSS: AKRON

ALAMOSA (H) BVORTAC 113.9/ALS FSS: TRINIDAD

BUCKLEY (T) VOR 112.7/BKF

COLORADO SPRINGS
§PETERSON FIELD *IFR* 6 SE FSS: DENVER (LC 634–3127)
6172 H110/17–35(3) (S–100, T–200, TT–400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17–35. 1000′ overrun each end rnwy 17–35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I–COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] Ctc twr.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340–055° and 15 nmi 245–270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ FSS: FARMINGTON

DENVER
§STAPLETON INTL *IFR* 4 E FSS: DENVER on Fld
5331 H115/17–35(3) (S–120, T–200, TT–350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: Twr unable to determine whether acft on correct final apch to rnwys 8L–8R and 26L–26R. Rnwy 17–35 clsd every Mon and Thurs 1430–1630Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3
Radar Services: (BCN)
Denver App Con 119.3[1] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831

COLORADO—*Continued*

ILS 110.3 I–DEN Apch Brg 257° **LOM:** 362/DE
108.1 I–SPO Apch Brg 350°
VHF/DF Ctc twr
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270–089°. [2]090–269°. **VOT:** 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC **FSS:** FARMINGTON

DURANGO (L) BVOR 108.2/DRO **FSS:** FARMINGTON

ENGLEWOOD RBn H–SAB 379●/EWD **FSS:** DENVER

GILL (L) BVORTAC 108.8/GIL **FSS:** DENVER

GRAND JUNCTION
§WALKER FIELD ***IFR*** 3NE **FSS:** GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12
S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I–GJT Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[2] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable below 5132′. [2]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC **FSS:** GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO **FSS:** LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC **FSS:** DENVER

KREMMLING (H) BVORTAC 113.8/RLG **FSS:** EAGLE

LAMAR (H) BVORTAC 116.9/LAA **FSS:** LA JUNTA

MEEKER (H) BVORTAC 115.2/EKR **FSS:** EAGLE

PETERSON (L) VORW 109.0/PEF

§PUEBLO MEML ***IFR*** 5E **FSS:** PUEBLO on Fld
4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F4
TP1 **RVV:** Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I–PUB Apch Brg 075° **LOM:** 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC **FSS:** AKRON

TOBE (L) BVORTAC 115.8/TBE **FSS:** TRINIDAD

TRINIDAD RBn SABH 329●/TAD **FSS:** TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI ***IFR*** 3SE
FSS: WINDSOR LOCKS (LC ED 5–6097)
9 H47 (11–29(3) (S–36.5, T–55.5, TT–) BL5,6 S5 F5 JP1, JP4
U2 DT2
Remarks: Apch to rnwys 16, 29 blkd by trees.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON **FSS:** PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI–3–3245)
Remarks: [1]Oper by State.

HARTFORD (L) BVORTAC 114.9/HFD **FSS:** WINDSOR LOCKS
RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD **FSS:** WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN **FSS:** WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW **FSS:** PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT **FSS:** WORCESTER

CONNECTICUT—*Continued*

WINDSOR LOCKS
§BRADLEY FIELD ***IFR*** 3W **FSS:** WINDSOR LOCKS on Fld.
173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10,14,15 S5
F5, JP4,5 U2 DT2 **VASI:** Rnwy 33
Remarks: Rnwy 6–24 A–Gear both ends.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I–BDL Apch Brg 058° **LOM:** 388/BD
Remarks: Glide slope rnwy 6 unusable below 373′.

DELAWARE

DOVER (T) VOR 108.4/DOV
Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO **FSS:** MILLVILLE

WATERLOO (L) BVORTAC 112.6/ATR **FSS:** SALISBURY

WILMINGTON
§GREATER WILMINGTON ***IFR*** 4S **FSS:** MILLVILLE (LC 652–5419)
79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5
F4, JP1 U2 DT2 **RVR:** Rnwy 1.
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125.0 110.3T
ILS 110.3 I–ILG Apch Brg 014° BC unusable **LOM:** 248/IL
VHF/DF Ctc twr.
New Castle (L) BVORTAC 114.0/EWT 067° 0.5 nmi to fld.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON
§DULLES INTL ***IFR*** 21W **FSS:** WASHINGTON (DL)
313 H115/(1L–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15
S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R
Remarks: RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.4
Radar Services: (BCN)
App Con 119.2 126.1
Dep Con 125.55
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I–DLX Apch Brg 186°
109.3 I–DIA Apch Brg 006° **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

§WASHINGTON NATIONAL ***IFR*** 3S **FSS:** WASHINGTON on Fld
15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15
S5 F5,JPI U2 DT2 **VASI:** Rnwys 15, 18 **RVV:** Rnwys 18, 15
RVR: Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18
Remarks: Very limited parking. Caution turbulance apch ends rnwys 21, 33 and 36.
Tower 119.1 122.5R **Gnd Con** 121.7
‡Clrnc Del 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[2] 127.0[1] 122.5R 128.8 109.9T
Dep Con 118.1[1] 126.55[2]
Tfc Info: Expanded radar service avbl: Arr 119.3 Dep 118.3
PAR[3] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I–DCA Apch Brg 003° BC unusable **LOM:** 332/DC

DISTRICT OF COLUMBIA—*Continued*

VHF/DF Ctc twr.
Washington (L) VORTAC 111.0/DCA at fld.
Washington RBn H-SAB 332●/DC 001° 4.6 NM to fld.
Remarks: [1]West. [2]East. Circling PAR avbl on 15 min notice durg VFR conditions. [3]Radar monitoring instrument apchs only at pilot's request. LOM is H-SAB. VOT: 108.2.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY FSS: MIAMI

CECIL (L) VORW 108.2/NCZ

CRESTVIEW (H) BVORTAC 115.9/CEW FSS: CRESTVIEW
RBn HW[1] 350/CEW
Remarks: [1]To be decmsnd Sep 16.

CROSS CITY (L) BVOR 112.0/CTY FSS: GAINESVILLE

§DAYTONA BEACH MUNI *IFR* 3SW FSS: ORLANDO (LC255-4767)
34 H57/6-24(3) (S-60, T-80, TT-) BL4,6,8A,9 S5 F5, JP1 U2
Remarks: Rgt tfc rnwy 6.
Tower 120.7 126.2 122.5R **Gnd Con** 121.9
App Con 123.9 122.5R 112.6T 109.7T
ILS[1] 109.7 I-DAB Apch Brg 065° **LOM:** 263/DA
(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.
Remarks: [1]Glide slope unusable below 150' MSL.

DESTIN RBn HW 201/DES

EGLIN (L) VOR 110.8/VPS

EGMONT KEY RBn HW 310/H

§FT. LAUDERDALE-HOLLYWOOD INTL *IFR* 3SW AOE FSS: MIAMI (LC 524-0233)
10 H74/9-27(3) (S-115, T-200, TT-400) BL4 S5 F5, JP1 U2
Remarks: Rnwy 9-27 thresholds displaced 600' both ends 1045' AGL twr 7NM SSW.
Fort Lauderdale Tower 119.3 122.5R 111.4T
Gnd Con 121.7
Radar Services: (BCN)
Miami App Con 123.9 119.7
Miami Dep Con 128.0 119.7
Ft Lauderdale (L) BVOR 111.4/FLL on fld.
Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY FSS: FORT MYERS
RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD FSS: ST. PETERSBURG

GAINESVILLE (H) BVORTAC 116.2/GNV FSS: GAINESVILLE

GREENVILLE (L) BVOR 109.0/GEF FSS: TALLAHASSEE

HOLLYWOOD
§NORTH PERRY 5W FSS: MIAMI (LC 524-0233)
9 H31/4-22(4) (Max-16) BL5 S5 F4 U2
Remarks: Two way rdo required.
Tower[1] 121.3 122.4R
Remarks: [1]Opers 1200-0200Z.

HOMESTEAD (L) VOR 108.2/HST
RBn MHW 221/HST

JACKSONVILLE
§IMESON *IFR* 5N FSS: JACKSONVILLE on Fld
52 H79/5-23(3) (S-62, T-110, TT-200) BL4,6,12 S5 F5, JP4 U2
RVV: Rnwy 5
Remarks: Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. Rnwy 18-36 open for dalgt VFR operns. 1500' apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410/ E, rnwy 12 displaced 335' W. Jet arresting gear rnwy 5-23.

FLORIDA—*Continued*

Jacksonville Tower: 118.3 126.2 122.5R 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2
Tfc Info: Ctc App Con on 119.0 25 mi out.
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452.
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I-JAX Apch Brg 045° BC unusable **LOM:** 221/JA
Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.
Jacksonville RBn H-SAB 344●/JAX 270° 1.4NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Glide slope unusable below 150'. **VOT:** 111.0

§KEY WEST INTL *IFR* 2 E AOE FSS: KEY WEST on Fld
4 H48/9-27(1) (S-30, T-40, TT-) BL4 S3 F4
Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 10:00 PM to Key West FSS.
Tower[1] 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Navy Key West App Con 118.7 122.5R
VFR ADV Ctc Key West rdo 0300-1100Z
(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.
RBn SBH 332/EYW 066° 1.2NM to fld.
Remarks: [1]Oper 0600-2200 lcl time.

LA BELLE (L) BVOR 110.4/LBV FSS: FORT MYERS

§LAKE CITY MUNI 3 E FSS: GAINESVILLE
202 H68/10-28(4) (S-75, T-140, TT-250) *L S5 F4 U1
Tower[1] 126.2
Remarks: [1]Oper 1300-2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL FSS: ST. PETERSBURG

MARATHON RBn HW 260/MTH FSS: KEY WEST

MARIANNA (L) BVOR 114.0/MAI FSS: DOTHAN

MELBOURNE
§JOHN F KENNEDY MEML *IFR* 2 NW FSS: MELBOURNE on Fld
32 H112/(9-27(3) (S-85, T-145, TT-270) BL4 S5 F4, JP5 U2
Remarks: 9603' rnwy 9-27 available ngts, displaced threshold rnwy 27 1589'W
Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9
Radar Services:
Patrick App Con 118.4
Patrick Dep Con 118.4
Melbourne (L) BVOR 110.0/MLB on fld.
Melbourne RBn HW 257/MLB 087° 2.1NM to fld.
Remarks: [1]Oper 0600-2400 daily, VFR use only.

MIAMI
§MIAMI INTL *IFR* 8 NW AOE FSS: MIAMI on Fld
9 H105/9L-27R (4) (S-200, T-200 TT-400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L
Remarks: Fee. Clsd non engine acft.
Tower 118.3 120.5 125.0 126.2 122.4R **Gnd Con** 121.8
‡Clrnc Del 127.5
ATIS: 115.9
Radar Services: (BCN)
App Con 118.1[1] 128.0 123.9[2] 122.4R
Dep Con 128.0[2] 119.7
Tfc Info Ctc Twr 20 mi out or remain above 2500'.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509.
Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.
ILS 110.3 I-MFA Apch Brg 087° **LOM:**[4] 365/MF
109.5 I-MIA[3] Apch Brg 267° **LOM:** 248/MI
VHF/DF Ctc twr.
(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12
RBn H-SAB 365●/MF 087° 4.5NM to rnwy 9L.

FLORIDA—*Continued*

Remarks: [1]090°–269° [2]270°–089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]Glide slope rnwy 27 unusable below 175′ MSL. [4]LOM is H–SAB. **VOT:** 112.0

§OPA LOCKA *IFR* 10 NW **FSS:** MIAMI
9 H80/9L–27R(5) (S–96 T–155 TT–290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L–27R. 1045′ TV twr 5 NM NNE. JP–1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.
Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Miami App Con 120.5 118.1
Miami Dep Con 128.0 119.7
Remarks: [1]Oper 1100–0300Z.

§TAMIAMI 8 W **FSS:** MIAMI
10 H38/14 32 (3) BL4 S5 F4
Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.
Tower[3] 121.1 122.6R **Gnd Con** 121.7
Radar Services:
Miami Dep Con 128.0[1] 119.7[2]
Remarks: [1]270°–089° [2]090–269°. [3]Opers 1200–0400Z.

OCALA (L) BVORTAC 112.8/OCF **FSS:** GAINESVILLE

ORLANDO
§HERNDON *IFR* 3 E **FSS:** ORLANDO on Fld
113 H60/7–25(3) (S–90, T–160, TT–300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7
Remarks: NW–SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.
Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7
Clrnc Del 121.7
Radar Services:
Orlando App Con 119.4 124.8 122.5R 109.9T
Orlando Dep Con 121.1
Tfc Info Ctc App Con on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613.
Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.
ILS 109.9 I–ORL Apch Brg 067° **LOM:** 221/OR
(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK **FSS:** WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN **FSS:** TALLAHASSEE

§PENSACOLA MUNI *IFR* 3 NE **FSS:** PENSACOLA on Fld
118 H50/16–34(2) (S–100, T–180, TT–320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16
Remarks: Overnight tie-down fee.
Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 123.9[1] 134.1 122.7R 119.0[2]
Dep Con 119.0[2] 134.1 123.9[1]
Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN
RBn H–SAB 326●/PNS 343° 1.8NM to fld.
Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR **FSS:** MIAMI

ST AUGUSTINE
§FAIRCHILD-ST AUGUSTINE 3N **FSS:** JACKSONVILLE
10 H65/13–31(3) (S–30) BL4,6 S5 F5
Remarks: Rnwy 2–20 and 6–24 clsd to acft over 12,500 lbs when twr not in opern.
Tower[1] 126.2 123.1 122.5R
Remarks: [1]Oper 1230–2115Z Mon–Fri.

ST. PETERSBURG
WHITTED 2E **FSS:** ST. PETERSBURG
7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2
Remarks: Rgt tfc rnwys 6, 36.
Tower 120.4 122.4R **Gnd Con** 121.8

FLORIDA—*Continued*

Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T
Tampa Dep Con 126.5
Tfc Info: See Tampa Intl
Remarks: Opers 0600–2200.

§ST. PETERSBURG-CLEARWATER INTL *IFR* 8N **FSS:** ST PETERSBURG on Fld
10 H80/17–35 (3) (S–95, T–155, TT–200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17
Remarks: Rnwy 4–22 clsd to ngt operns UFN.
Tower [2] 118.3 122.7R **Gnd Con** 121.9
Radar Services (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T **Tampa Dep Con** 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI
St Petersburg (H) BVORTAC 116.4/PIE at fld.
Remarks: [1]Glide slope unusable below 150′ MSL.[2] Efctv Oct 1, twr hrs opern 0600–2200 lcl time.

SANFORD NAS RBn SH 408/NRJ **FSS:** ORLANDO

§SARASOTA-BRADENTON *IFR* 3N **FSS:** ST. PETERSBURG (LC 955–6160)
955–6160) 24 H50/13–31(3) (S–62, T–110, TT–190) BL4,6 S5 F5, JP1 U2
Remarks: Rnwy 9–27 and all perimeter txwys clsd to acft in excess 12,500 lbs.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 108.4T
Tampa Dep Con 126.5
Sarasota (L) BVOR 108.4/SRQ at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUFLEY (L) BVOR 108.8/NUN
RBn MH 293/NUN

§TALLAHASSEE MUNI *IFR* 4 SW **FSS:** TALLAHASSEE on Fld
81 H61/18–36(2) (S–80, T–150, TT–270) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 36
Tower 118.7 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
App Con 118.1 122.5R 117.5T 110.3T
Dep Con 118.1
ILS[1] 110.3 I–TLH Apch Brg 358° **LOM:** 379/TL
(H) BVORTAC 117.5/TLH
RBn H–SAB 379●/TL 358° 4.1NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 160′ MSL. LOM is H–SAB **VOT:** 111.0

§TAMPA INTL *IFR* 3 W AOE **FSS:** ST. PETERSBURG (LC223–3431
27 H87(18R–36L (S–60, T–175, TT–270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L
Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.
Tower 119.9 126.2 122.5R 110.3T **Gnd Con** 121.7
Radar Services (BCN)
App Con 119.5 125.3 122.5R 118.5 116.0T 116.4T 108.4T
Dep Con: 126.5
Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.
ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP
RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36
VHF/DF: ctc FSS
Remarks: **VOT:** 111.0

TAYLOR (L) BVORTAC 113.8/TAY **FSS:** VALDOSTA

TYNDALL (L) VOR 117.7/PAM
RBn HW 227/AAN

FLORIDA—*Continued*

VERO BEACH (H) BVORTAC 117.3/VRB **FSS:** VERO BEACH

WEST PALM BEACH
§PALM BEACH INTL ***IFR*** 3 W AOE **FSS:** MIAMI (LC 832–5697)
19 H80/9–27(2) (S–85, T–400, TT–) BL4.6,8A,9 S5 F5 JP4
RVV: Rnwy 9
Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.
Tower 119.1 122.7R **Gnd Con** 121.9
App Con 118.0 122.7R 115.5T 109.3T
ILS[1] 109.3 I–PBI Apch Brg 093° **LOM:** 356/PB
Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.
Palm Beach RBn HW 356/PB 093° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 150′. LOM is HW.
VOT: 109.0.

GEORGIA

ALBANY (L) BVOR 112.9/ABY **FSS:** ALBANY

ALMA (H) BVORTAC 115.1/AMG **FSS:** ALMA

ATHENS (L) BVORTAC 109.6/AHN **FSS:** ANDERSON

ATLANTA
§ATLANTA MUNI ***IFR*** 7SSW **FSS:** ATLANTA
1024 H100(9L–27R(4) (S–100, T–170, TT–340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.
Remarks: Aprxly 2100′ of W end rnwy 9R–27L not visible from twr. TV towers 1042′ (2049′ MSL) 8.5 NM NE. 1076′ (2049′ MSL) 7.5 NM NE. 1100′ (2049′ MSL) 10 nmi NE. Commercial Fee only. [1]Avail for apch and roll out.
Tower 119.1 119.5 122.7R **Gnd Con** 121.9
‡Clnrc Del 121.6
ATIS: 111.8 111.0
Radar Services: (BCN)
App Con 127.7 (N of V18) 118.1 (S of V18) 109.9T 109.3T 110.5T
Dep Con 125.7 125.0
Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.
PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.
ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424.
Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.
ILS 109.9 I–ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I–AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I–ALR Apch Brg 089° **LOM:** 254/AL
(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.
RBn H–SAB 266●/ATL 270° 4.7NM to rnwy 27R.
Remarks: [1]Glide slope rnwy 33 unusable below 1085′ MSL. [2]Radar monitoring of instrument apchs only at pilot's request.
VOT: 111.0

§DEKALB-PEACHTREE ***IFR*** 8 NE **FSS:** ATLANTA
1002 H40/16–34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2
Remarks: TV towers 1042 (2049′ MSL) 7.5NM SSW; 1076′ (2049′ MSL) 8NM SSW; 1100′ (2049′ MSL) 5NM SSW.
Peachtree Tower[1] 120.9 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
Remarks: [1]Oper 1200–0400Z.

§FULTON COUNTY ***IFR*** 6W **FSS:** ATLANTA on Fld
839 H52/8–26(2) (S50, T–77, TT–) BL4, 11 S5 F5
REIL: Rnwy 8.
Remarks: Towers 1042′ (2049′ MSL) 9 NM E. 1076′ (2049′ MSL) 8NM E. 110′ (2049′ MSL) 9.5 NM E.
Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
(L) BVOR 108.2/FTY on fld.
RBn MH 245/FTY on fld

GEORGIA—*Continued*

VHF/DF Ctc FSS.
Remarks: [1]Oper 1200–0400Z.

AUGUSTA
§BUSH FIELD ***IFR*** 6S **FSS:** AUGUSTA on Fld
145 H80–17–35(2) (S–150, T–200, TT–360) BL4,6,8A,9 S5 F5, JP1, JP4 U2
Remarks: 1506′ (1882′ MSL) twr 7NM ENE and 1292′ (1677′ MSL) twr 7NM NE.
Augusta Tower 118.7 126.2 122.5R 110.5T
Gnd Con 121.9
Augusta App Con 125.4 122.5R 113.9T 110.5T
ILS[1] 110.5 I–AGS Apch Brg 349° BC unusable **LOM:** 233/AG
Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.
Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 245′ MSL.

BLAKELY RBn MHW 365/BLG

BRUNSWICK (L) BVOR 109.8/SSI **FSS:** BRUNSWICK

COLUMBUS
§MUSCOGEE COUNTY ***IFR*** 4NE **FSS:** ATLANTA
397 H50/5–23(2) (S–60, T–80, TT) BL4,6 S5 F5, JP5 U2
Remarks: Rnwy 12–30 closed to ngt lndgs.
Tower 120.1 122.5R **Gnd Con** 121.9
Columbus App Con 25.3 122.5R 110.3T 335T
Columbus Dep Con 125.3
ILS[1] 110.3 I–CSG Apch Brg 053° BC unusable **LOM:** 355/CS
Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.
Remarks: [1]Glide slope unusable below 693′.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN **FSS:** MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA

HARRIS (L) BVOR 110.4/HRS **FSS:** KNOXVILLE, TENN.

LA GRANGE (L) BVOR 109.4/LGC **FSS:** ANNISTON

LAWSON (L) VOR 111.4/LSF
RBn SH 335/AWS
Remarks: VOR inoperative UFN.

LIBERTY RBn MHW 263/HIN

LOST MOUNTAIN RBn HW 314/LSM

§MACON MUNI ***IFR*** 9S **FSS:** MACON on Fld
354 H50/5–23(2) (S–30, T–50, TT–85) BL4,6,8A,9 S3 F5, JP1 U2 **RVV:** Rnwy 5 .
Remarks: Apch lgts rnwy 5 unattented 2300–0700 lcl time. Rnwy lgts oper dusk-2300; after on req thru FSS.
Tower[2] 118.3 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T
Dep Con 124.8
ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.
ILS[1] 109.5 1–MCN Apch Brg 047° BC unusable **LOM:** 290/MC
(H) BVORTAC 114.2/MCN at fld.
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 450′ MSL. [2]Opers 0700–2300 lcl time.

MOULTRIE (L) BVOR 108.8/MGR **FSS:** VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR **FSS:** ATLANTA

REX (L) BVOR-DME 111.8/REG **FSS:** ATLANTA

ROME (L) BVOR 115.4/RMG **FSS:** ATLANTA
RBn MHW 388/RMG

GEORGIA—*Continued*

SAVANNAH
§TRAVIS FIELD ***IFR*** 7NW FSS: SAVANNAH on Fld
50 H90/9–27(3) (S40–T60–TT–110) BL4,6,8A,9 S5
F4, JP5 **RVR:** Rnwy 9
Remarks: Rnwy 27 threshold displaced 400′. Rnwy 5–23 clsd all acft in excess 12,500 lbs GWT. Jet barrier and arresting gear rnwy 9–27
Savannah Tower 119.1 126.2 122.5R 110.1T
Gnd Con 121.9
Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7
ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: **VOT:** 111.0

TOCCOA (L) BVOR 109.8/TOC FSS: ANDERSON

VALDOSTA (L) BVOR 110.4/VLD FSS: VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA FSS: MACON

WAYCROSS (L) BVORTAC 110.2/AYS FSS: ALMA

IDAHO

§BOISE AIR TERMINAL ***IFR*** 3S FSS: BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9
S5 F5, JP1,4 U2 **RVV:** Rnwy 28R **RVR:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R. Jet barriers and arresting gear Rnwy 10R–28L plus jet barriers with donut supported cable aprxly 1000′ in from threshold lgts on rnwy 10R–28L.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI FSS: BURLEY
RBn SBH 272/BYI

COEUR D' ALENE RBn HW 347/COE FSS: SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS FSS: IDAHO FALLS

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§IDAHO FALLS
FANNING FIELD ***IFR*** 2NW FSS: IDAHO FALLS on Fld
4739 H75/2–20(2) (S–30, T–90, TT–150) BL5,6,11 S5 F4 JP5
REIL: Rnwy 20.
Remarks: Rnwy 20 threshold displaced 930′ SW. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 655′ S. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350●/IDA 199° 2.2NM to rnwy 20.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

LEWISTON (L) BVOR 108.2/LWS FSS: WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD FSS: MALAD CITY

McCALL (H) BVORTAC 116.2/MYL FSS: BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP FSS: MULLAN PASS

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§POCATELLO MUNI ***IFR*** 7NW FSS: POCATELLO on Fld
4448 H82/3–21(3) (S30, T80, TT130) BL5,6,9,12 S5 F4 JP1
U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF FSS: BURLEY

ILLINOIS

§ALTON CIVIC MEML ***IFR*** 5E FSS: ST. LOUIS
541 H51(2) BL5 S5 F4 JP1 U2 (LC HO 5–4112)
Remarks: P-line NW. Hwy N
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
St. Louis Dep Con 119.9
VFR ADV: Ctc St. Louis, Lambert-St. Louis
RBn MHW 263/ALN
Remarks: [1]Oper 0700–2300 [2]Southeast Arrivals [3]Northwest arrivals

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BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB FSS: VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI FSS: PEORIA

BRADFORD (H) BVORTAC 114.7/BDF FSS: PEORIA

CAHOKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

CAPITAL (H) BVORTAC 112.7/CAP FSS: VANDALIA

CARBONDALE RBn BMH 248/MDH FSS: CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL FSS: VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD ***IFR*** 4SSW
FSS: CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4 U2 DT2
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY ***IFR*** 3NW FSS: JOLIET (DL)
758 H40/10–28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 DT2
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy 5–23 clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R ~~121.5~~ **Gnd Con** 121.7
Remarks: [1]Oper 0600–2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E FSS: JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1,500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear acft. (3) 25 knots or more to all acft. Fld clsd daily to all opers btn hrs 2400 and 0600 lcl time due, no safety or svcs facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs.
Meigs Tower[1] 121.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Chicago Dep Con: 119.5
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY ***IFR*** 9SW AOE FSS: JOLIET (DL)
619 H65/13R–31L(6) (S–130, T–200, TT–400) BL2,4,6,8A,9,11
S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Customs svc avbl 0800–1700 cst Mon–Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 119.2 126.2 122.7R 123.7 ~~121.5~~ 109.9T 109.5T
Gnd Con 121.7
Radar Services:
Chicago App Con 119.5

ILLINOIS—*Continued*

Chicago Dep Con[1] 119.5
Tfc Inf Ctc Chicago App Con on 119.5.
VFR ADV: Ctc twr on 119.2
PAR[3] Rnwy 13R Ceiling 300 Vsby 3/4 mi Min alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I-MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I-MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H-SAB 350●/MDW
VHF/DF Ctc twr.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immediate area of Midway on 119.2 [2]PAR unusable from MM to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. LOM is Kedzie MHW. **VOT:** 111.0.

§CHICAGO-O'HARE INTL ***IFR*** 14NW **FSS:** JOLIET (DL)
667 H116/14R-32L(5) (S-120, T-200, TT-375) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **RVR:** 14R, 14L, 32L
RVV: Rnwys 4, 9, 27, 32R **VASI:** Rnwy 22.
Remarks: Motel sign 1 3/4 mi from apch end of rnwy 32L maybe mistaken for apch lgts First 1000′ rnwy 14L clsd.
O'Hare Tower 118.1 126.2 122.6R 120.7 113.9T 110.1T 109.7T
‡Clrnc Del 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4[1] 125.0[2]
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
VFR ADV: 127.4
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby 1/2 mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby 3/4 mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I-ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I-OHA Apch Brg 138° **LOM:** 368/OH
110.5 I-IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I-RVG Apch Brg 318° **LOM:** 257/RV
111.1 I-IDN Apch Brg 318° **LOM** 385/ID
111.3[3] I-HNA Apch Brg 040°
(L) VORTAC 113.9/ORD on fld.
VHF/DF Ctc twr.
Remarks: [1]180°-359° [2]360°-179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. [3]To be comsnd Sep 30 **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE

DECATUR MUNI ***IFR*** 4E **FSS:** VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 TPI U-2
Remarks: REIL rnwy 18, 36
Tower: 118.9 122.5R 121.5 **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700-2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

ILLINOIS—*Continued*

GLENVIEW RBn MH 269/NBU

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY ***IFR*** 3S **FSS:** BURLINGTON (DL)
590 H55/9-27(3) (S-56, T-82, TT-140) BL4,6,8A,9 S5 F4, JP4 U2 DT2 **RVV:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 121.7[1] 224T
ILS 110.3 I-MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.
Remarks: [1]For IFR acft operg Davenport Mun Arpt.

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE

PEORIA
§GREATER PEORIA ***IFR*** 4W **FSS:** JOLIET
659 H70/12-30(4) (S-65, T-90, TT-170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. Arresting gear rnwy 12-30. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 I-PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD ***IFR*** 9E **FSS:** QUINCY on Fld
769 H54/3-21(3) (S65, T-90, TT-170) BL4,6 S5 F4 JP1 DT2
ILS 110.1 I-UIN Apch Brg 035° **LOM:** 293/UI
Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.
Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS **FSS:** CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD ***IFR*** 4S **FSS:** ROCKFORD on Fld
735 H60/18-36(3) (S-150, T-200, TT-400) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 36 **RVR:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I-RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV

SAMSVILLE (L) BVOR 116.6/SAM **FSS:** EVANSVILLE

SPRINGFIELD
§CAPITAL ***IFR*** 3NW **FSS:** VANDALIA (DL)
593 H70/4-22(3) (S-85, T-120, TT-210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVV:** Rnwy 4 **REIL:** Rnwy 22.

ILLINOIS—*Continued*

Remarks: Jet barrier rnwy 4–22.
Tower 121.3 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 118.6 aprx 25NM out
Springfield App Con 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I–SPI Apch Brg 038° **LOM:** 379/SP
Springfield RBn MHW 379/SP
Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY **FSS:** ST. LOUIS

VANDALIA (L) BVOR 114.3/VLA **FSS:** VANDALIA
Remarks: To be BVORTAC Oct 3.

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID **FSS:** INDIANAPOLIS

BAKALAR RBn HW 410/BAK

BLOOMINGTON (L) BVOR 110.2/BMG **FSS:** INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL
RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU **FSS:** INDIANAPOLIS

CONNERSVILLE RBn MHW 275/CEV
Remarks: Owned and operd by city.

EVANSVILLE
§DRESS MEMORIAL *IFR* 3N **FSS:** TERRE HAUTE (DL)
389 H60/3–21(3) (S–70, T–90, TT–) BL4.6 S5 F5 TPI U2 DT2
Remarks: P-line apch rnwy 21. Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below. First 700′ rnwy 21 clsd dalgt operns and first 250′ clsd ngt operns UFN.
Evansville Tower 118.7 122.5R **Gnd Con** 121.9
Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T
VFR ADV: Ctc App Con on 119.4
ILS 109.9 I–EVV Apch Brg 215° BC unusable **LOM:** 219/EV
Evansville (H) VORTAC 113.3/EVV ·12.4NM to fld.

FT. WAYNE
§BAER FIELD *IFR* 6SSW **FSS:** FORT WAYNE on Fld.
801 H80/4–22(3) (S–90, T–120, TT–) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 22
Remarks: P-line SE. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9. Jet barrier rnwy 4–22.
Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6
Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.
ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW
Fort Wayne (H) BVORTAC 117.8/FWA on fld.
Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31
Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH **FSS:** SOUTH BEND

HUNTINGBURG RBn MHW 239/HNB

§INDIANAPOLIS MUNI (Weir Cook) *IFR* 7SW **FSS:** INDIANAPOLIS on Fld
797 H100/4–22(2) (S–100, T–150, TT–270) BL6,8A,9,10,11 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 **RVR:** Rnwy 4, 31
Remarks: Fee multi-eng commercial acft.

INDIANA—*Continued*

Tower 120.9 126.2 122.5R 116.3T
‡Clrnc Del 125.7 **Gnd Con** 121.9
ATIS 110.5
Radar Services:
App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.5 or 118.1
PAR[3] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN
110.5 I–COA Apch Brg 313° **LOM:** 232/CO
(H) BVORTAC 116.3/IND 142° 6.1NM to fld.
RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4
VHF/DF Ctc FSS.
Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI **FSS:** SOUTH BEND

KOKOMO (L) BVOR 109.8/OKK **FSS:** INDIANAPOLIS
RBn MHW 227/OKK

LAFAYETTE
§PURDUE UNIVERSITY *IFR* 1SW **FSS:** LAFAYETTE on fld
605 H54/10–28(2) (S35 T53 TT80) BL5 S3 F5 JP1
Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.
ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA
Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU **FSS:** TERRE HAUTE

MARION (T) BVOR 108.6/MZZ **FSS:** INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI **FSS:** FORT WAYNE

MUNCIE
§DELAWARE COUNTY (Johnson Fld) *IFR* 3N **FSS:** INDIANAPOLIS (DL)
937 H51/14–32(2) (S–70, T–90, TT–150) BL4 S5 F4 JP1 U2
Remarks: P-line in NW apch 3480′ off end rnwy 14.
Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9
Muncie (L) BVOR 113.7/MIE
Remarks: [1]Oper 1200–0400Z.

NABB (L) BVOR 113.5/ABB **FSS:** LOUISVILLE

RICHMOND (L) BVOR 110.6/RID **FSS:** DAYTON
RBn MHW 385/RID

SCOTLAND (L) BVORTAC 111.2/SCJ **FSS:** TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB **FSS:** INDIANAPOLIS

SOUTH BEND
§ST. JOSEPH COUNTY *IFR* 3NW **FSS:** SOUTH BEND on Fld
785 H60/9–27(4) (S–110, T–145, TT–) BL4,6,8A,9 S4 F5, JP1 U2 **RVV:** Rnwy 27
Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.
South Bend Tower 118.9 122.5R 115.4T 109.3T **Gnd Con** 121.9
South Bend App Con 121.0 122.5R 115.4T 109.3T
VFR ADV: Ctc App Con on 121.0
ILS 109.3 I–SBN Apch Brg 269° **LOM:** 341/SB
South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.
VHF/DF Ctc FSS.

TERRE HAUTE
§HULMAN FIELD *IFR* 5E **FSS:** TERRE HAUTE on Fld
585 H90/5–23(3) (S–100, T–150, TT–270) BL4,6 S3 F4, JP1 U2
Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18–36 clsd to acft over 25,000 lbs. Jet barrier rnwy 5–23.

INDIANA—*Continued*

Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 122.5R 118.3
VFR ADV Ctc App Con on 123.8
ILS 109.7 I–HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
VHF/DF Ctc FSS.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT FSS: LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK FSS: FT. WAYNE

IOWA

AMES RBn MHW 275/AMW FSS: DES MOINES
Remarks: Operd by city.

ATLANTIC RBn MHW 365/AIO FSS: OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL FSS: BURLINGTON

§CEDAR RAPIDS MUNI *IFR* 5SSW FSS: CEDAR RAPIDS on Fld
863 H70/8–26(2) (S–100, T–135, TT–) BL4,6,8A,9,11 S–5
F4, TP–1 –JP1 U2 **REIL** Rnwy 26
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 119.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I–CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBN MHW 375/CCY FSS: MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN FSS: BURLINGTON

§DES MOINES MUNI *IFR* 3SW FSS: DES MOINES on Fld
957 H90/12–30(3) (S–100, T–180, TT–350) BL4,6,8A,9,11 S–5
F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17–35 clsd to acft over 25,000 lbs.
DT Memorial Day—Labor Day.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi
Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I–DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ FSS: CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD FSS: MASON CITY

IOWA CITY (L) BVORTAC 111.0/IOW FSS: CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW FSS: DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK FSS: BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN FSS: DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW FSS: MASON CITY

NEOLA (L) BVORTAC 117.1/EOL FSS: OMAHA

NEWTON (L) BVOR 112.5/TNU FSS: DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM FSS: OTTUMWA

IOWA—*Continued*

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

§SIOUX CITY MUNI *IFR* 6S FSS: SIOUX CITY
1097 H90/13–31(3) (Max 2.25) BL4,6,8A,9,11 S–5
F4, JP–1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 13
Remarks: First 1500′ rnwy 22 not visible to tower. Arresting gear rnwy 13–31.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I–SUX Apch Brg 307° **LOM:** 414/SU
VHF/DF Ctc twr
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
Remarks: [1]LOM is MHW.

SPENCER RBn MHW 257/SPW

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

§WATERLOO MUNI *IFR* 4NW FSS: WATERLOO on Fld
870 H54/12–30(3) (S–100, T–180, TT–305) BL4,8A,9 S–5
F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
App Con 125.8 122.5R 109.9T 108.2T
VFR ADV Ctc App Con on 125.8
ILS[1] 109.9 I–ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN FSS: LACROSSE

KANSAS

ANTHONY (L) BVOR 112.9/ANY FSS: WICHITA

CHANUTE (L) BVOR 109.2/CNU FSS: CHANUTE

DODGE CITY (L) BVORTAC 108.2/DDC FSS: DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP FSS: EMPORIA

FORT RILEY (L) VORW 109.4/FRI FSS: SALINA
RBn MHW 317/FRI

GARDEN CITY (H) BVORTAC 113.3/GCK FSS: GARDEN CITY
RBn H–SAB 257 /GCK

GOODLAND (L) BVORTAC 115.1/GLD FSS: GOODLAND

GREAT BEND RBn MHW 308/GRB FSS: RUSSELL

HILL CITY (H) BVORTAC 113.7/HLC FSS: HILL CITY

§HUTCHINSON MUNI *IFR* 3E FSS: WICHITA (DL)
1542 H70/13–31(3) (S–50, T–65, TT–103) BL4,6,8A,9 S5 F4 JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Rnwy 31 threshold displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 125.5 122.5R 118.5 116.8T
VFR ADV Ctc App Con on 125.5
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP FSS: CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE FSS: KANSAS CITY
746 H61/17–35(4) (S–30, T–50, TT–85) BL6 S5 F–5, JP–1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys. Rnwy 17–35 only rnwy avbl ngts.
Tower[2] 119.1 126.2 122.5R ~~121.5~~ **Gnd Con** 121.7

KANSAS—*Continued*

Radar Services:
Kansas City App Con 126.2 122.'7R 121.1[1] 118.9[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Opers 0600–2200 daily, during hrs twr not in 2200–0600 tfc advisories will be furnished by Kansas City twr on 119.1.

LIBERAL (H) BVOR 112.3/LBL **FSS:** GARDEN CITY
Remarks: To be BVORTAC Oct 7.

McCONNELL (L)VORW 117.3/IAB

MANHATTAN (T) BVOR 110.2/MHK **FSS:** SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO **FSS:** SALINA

OSWEGO (L) BVOR 117.6/OSW **FSS:** JOPLIN

OTTAWA (L) VORW 111.6/TOE

PRATT RBn HW 356/PTT **FSS:** DODGE CITY

RUSSELL (L) BVOR 114.5/RSL **FSS:** RUSSELL

SALINA MUNI 3 SW **FSS:** SALINA
1271 H133/17–35(2) (S–100, T–185, T–350) BL6 S5 F4
Tower[1] 119.3 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R
(H)BVORTAC 115.3/SLN 182° 4.4NM to fld.
Remarks: [1]Oper 0600–2200 lcl time.

TOPEKA
§PHILIP BILLARD MUNI ***IFR*** 3NE **FSS:** TOPEKA on Fld
880 H51/13–31(3) (S–70, T–100, TT–175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
Olathe Dep Con 120.5 122.5R
ILS[1] 109.5 I–TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

WICHITA
§BEECH ***IFR*** 5E **FSS:** WICHITA (DL)
1387 H50/18–36(3) F4
Remarks: P-lines N, S.
Tower[1] 119.9 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Oper 1400–2300Z Mon-Fri. Sat. 1300–1730Z. Clsd Sun and holidays.

§WICHITA MUNI ***IFR*** 5SW **FSS:** WICHITA on Fld
1332 H73/1–19(2) (S–100, T–188, TT–350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr [illegible] NNW.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS[1] 110.3
Radar Services: (BCN)
Wichita App Con 120.1 120.6 134.1 125.7 122.7R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I–ICT Apcr Brg 011° **LOM:** 332/ICT

KANSAS—*Continued*

(H) BVORTAC 113.8/ICT 162° 4.3NM to rnwy 14.
RBn H–SAB 332/ICT
Remarks: [1]Oper 0700–2100 lcl time. LOM is H–SAB.

KENTUCKY

ASHLAND RBn MHW 385/AKY **FSS:** HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG **FSS:** BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC **FSS:** LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT **FSS:** BOWLING GREEN

FALMOUTH (L) BVOR 109.0/FLM **FSS:** CINCINNATI

FORT KNOX (T) VOR 109.6/FTK
RBn MH 396/FTK

LEXINGTON
§BLUE GRASS FIELD ***IFR*** 5W **FSS:** LEXINGTON on Fld
978 H55/4–22(3) (S–95, T–128, TT–284) BL4,6,8A,9 S5 F5, JP–5 U2 **RVV:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.
Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd Con 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I–LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3NM to fld
Lexington RBn MHW 242/LE 042° 3.5NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ **FSS:** LONDON

LOUISVILLE
§BOWMAN FIELD ***IFR*** 5SE **FSS:** LOUISVILLE on Fld
549 H43/6–24(3) (Max 30) BL4,11 S–5 F–4, JP–4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

§STANDIFORD FIELD ***IFR*** 4S **FSS:** LOUISVILLE (DL)
497 H78/1–19(3) (S-60, T–90, TT–200) BL4,6,8A,9,14,15 S–4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1
Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7
Radar Services:
App Con 124.5 126.2 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I–SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I–LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF Ctc twr.
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS **FSS:** LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB **FSS:** HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO **FSS:** LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB **FSS:** EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK **FSS:** PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK **FSS:** HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG **FSS:** LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX FSS: ALEXANDRIA
RBn HW 251/AEX

BARKSDALE (L) VOR 114.8/BAD
RBn HW 379/BAD

BATON ROUGE

§**RYAN** *IFR* 4 N FSS: BATON ROUGE on Fld
70 H60/4-22 (3) (S-137, T-175, TT-340) BL4, 6, 11 S5
F4, JP5 U2 **REIL:** Rnwy 13

Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 120.3 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW

Tower 118.3 122.5R **Gnd Con** 121.9
Baton Rouge App Con 120.3 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT
Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (T) BVOR 108.8/ESF FSS: ALEXANDRIA

GRAND ISLE (H) BVORTAC 113.5/GNI FSS: NEW ORLEANS
RBn HH-SAB 236●/GNI

HARVEY (L) BVORTAC 112.4/HRV FSS: NEW ORLEANS

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§**LAFAYETTE MUNI** *IFR* 2 SE FSS: LAFAYETTE on Fld
42 H51/1-19(2) (S-29, T-47, TT-78) BL4, 8A, 9, 11 S5
F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1
Tower 118.5 122.5R **Gnd Con** 121.7
Clrnc Del 121.7
App Con 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193° **LOM:** 257/LF
(L)BVORTAC 110.8/LFT 344° 3.0 NM to fld.
RBn BMH 375/LFT at fld.

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§**LAKE CHARLES MUNI** *IFR* 3 S FSS: LAKE CHARLES on Fld
16 H65/15-33(2) (S-137, T-165, TT-350) BL4,5,6,8A, 9 S5
F4, JP4 **RVV:** Rnwy 15
Remarks: Rgt tfc rnwys 15 and 22.
Tower 120.7 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 113.4T 109.1T
ILS 109.1 I-LCH Apch Brg 148° **LOM:** 353/LC
(H)BVORTAC 113.4/LCH 252° 6.3 NM to fld.
RBn BH 242/LCH

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§**MONROE** *IFR* 3 E FSS: MONROE on Fld
79 H50/4-22(3) (S-50, T-75, TT-135) BL4,6,8,9 S5
F4, JP4 U2

Remarks: Apch to runwys 17-35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.

Tower 119.1 122.5R **Gnd Con** 121.9
App Con 119.1 122.5R
ILS[1] 109.5 I-MLU Apch Brg 039° **LOM:** 219/ML
(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.
Remarks: [1]Glide slope unusable below 320′ MSL.

NEW ORLEANS

§**NEW ORLEANS-LAKEFRONT** *IFR* 4 NE FSS: NEW ORLEANS on Fld
10 H57/17-35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2

Remarks: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 290′ N. 4424′ avbl lndg rnwy 35. 4186′ avbl lndg rnwy 17. No ngt operns rnwy 8-26. 1046′ (1049′ MSL) TV twr 8 NM S. 1049′ MSL) TV twr 7 NM SE.

Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7
Radar Services:
New Orleans App Con 125.5 122.7R 118.1
New Orleans Dep Con 120.6

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§**NEW ORLEANS INTL-MOISANT FLD** *IFR* 10 W
FSS: NEW ORLEANS (DL)
3 H92/10-28(3) (S-180, T-225, TT-425) BL4,6,8A,9,11,14,15
S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10

Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300-1700Z Mon-Sat) req arr notice **be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28** threshold displaced 720′ SW. **Usable length rnwy 28—8507′;** rnwy 10-9227′. 720′ E of rnwy 28 **threshold usable tkof only** with approval ctl twr.

LOUISIANA—*Continued*

Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9
Radar Services:
New Orleans App Con [1]125.5 122.7R 118.1 109.9T
New Orleans Dep Con 120.6
Tfc Info Ctc App Con on 125.5, for other arpts in or transversing the area ctc App Con on 118.1
ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.
Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.
Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.
ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS
New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.
New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 10.
VHF/DF Ctc twr.
Remarks: [1]Acft transitioning New Orleans NAS MCC freq 126.0 during above 5000′; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

SHREVEPORT

§**GREATER SHREVEPORT** *IFR* 4 SW FSS: SHREVEPORT on Fld
257 H73/13-31(2) (S-83, T-120, TT-201) BL4, 6, 8A, 9, F4
RVV: Rnwy 13
Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
Tfc Info Ctc App Con on 118.5
ILS 110.3 I-SHV Apch Brg 136X **LOM:** 230/SH
Shreveport RBn H-SAB 230●/SH 136° 3.6 NM to rnwy 14.
Remarks: LOM is H-SAB

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§**SHREVEPORT DOWNTOWN** *IFR* 2 N FSS: SHREVEPORT (DL)
179 H45/14-32(3) (S30) BL4 S5 F4
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
(T)VOR 108.6/DTN at fld.
Shreveport (H) BVORTAC 117.4/SHV 159° 13.9 NM to fld.

TIBBY (L) BVORTAC 112.0/TBD FSS: NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA FSS: LAFAYETTE

MAINE

AUGUSTA (L)BVORTAC 111.4/AUG FSS: AUGUSTA
RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR FSS: OLD TOWN
Rng SBRAZ[1] 239/BW
Remarks: [1]Reliable reception distance 65 NM.

BAR HARBOR RBn MHW 320/BHB FSS: OLD TOWN

BRUNSWICK (L) VOR 116.2/NHZ
Rng MRLZ[1] 368/NZ
Remarks: [1]Reliable reception distance 50 NM.

HOULTON (L)BVOR 108.2/HUL FSS: HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE FSS: PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT FSS: MILLINOCKET
RBn H-SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU
Remarks: Owned and operd by Airport Commission.

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§**PORTLAND MUNI** *IFR* 2W FSS: PORTLAND on Fld
66 H50/11-29(2) (S-94, T-116, TT-) BL 5, 6, 8A, 9, 10 S5 F5,
JP1 U2 DT2 **VASI:** Rnwy 29 **RVV:** Rnwy 11

MAINE—*Continued*

Remarks: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27′ lctd at the end of rnwy and 800′ rgt cntrline. Lesser penetrations lctd 250′–430′ from end of rnwy and 720′–890′ left cntrline. 1890′–2180′ from end of rnwy and 900′–1090′ left cntrline.
Tower 120.9 122.5R 109.9T **Gnd Con** 121.9
App Con 120.9
ILS 109.9 I–PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI **FSS:** HOULTON

PRINCETON (L)BVOR 114.3/PNN **FSS:** HOULTON

ROCKLAND RBn MHW 353/RKD **FSS:** AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR **FSS:** HOULTON
Remarks: Reliable reception distance 40 NM.

WATERVILLE RBn MHW 375/AVI **FSS:** AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG

ANDREWS (L)VORTAC 113.1/ADW

BALTIMORE
§FRIENDSHIP INTL *IFR* 8 S **FSS:** WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–100, T–220, TT–500) BL6, 8A, 9, 10, 11 S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10 **REIL** rnwy 4, 22
Remarks: For Customs use gates A–14 and A–3. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turboprop due noise complaints.
Tower 118.7 122.7R 109.7T **Gnd Con** 121.9
Radar Services:
Baltimore App Con 119.7 125.9[2]
Baltimore Dep Con 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.
ILS[3] 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA
Baltimore (L) BVORTAC 113.8/BAL on fld.
VHF/DF Ctc twr.
Remarks: [1]101°–281° [2]282°–100° [3]Glide slope unusable from 400′ inside MM to touchdown. **VOT:** 108.2.

CUMBERLAND RBn MHW 317/CBE **FSS:** MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK **FSS:** MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI **FSS:** WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV **FSS:** MORGANTOWN

HAGERSTOWN (L)BVOR 109.8/HGR **FSS:** MARTINSBURG

NOTTINGHAM (L)BVORTAC 116.0/OTT **FSS:** WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT **FSS:** SALISBURY

POOLESVILLE RBn MHW 280/PLV **FSS:** WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY **FSS:** SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL **FSS:** SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI **FSS:** WASHINGTON

MASSACHUSETTS

BEDFORD
§LAURENCE G HANSCOM FLD *IFR* 1 S **FSS:** BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11 S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29
REIL: Rnwys 23, 29 **RVV:** Rnwy 11
Remarks: 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. Jet barriers and arresting gear rnwy 11–29. FEE for commercial acft over 5000′ lbs.
Tower 118.5 122.5R **Gnd Con** 121.7
Radar Services:
Boston App Con 124.4
ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE
Bedford (L)VOR 116.0/BED on fld.
Bedford RBn HW 512/BE 112° 4.0 NM to fld.
VHF/DF Ctc twr.
Remarks: LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF **FSS:** BOSTON

BOSTON
§LOGAN INTL *IFR* 1 E **FSS:** BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A[1], 9[2], 10 S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L **RVV:** Rnwy 22L
Remarks: FEE. Lndg threshold rnwy 4R displaced 2507′ to NE, 10,000′ avbl except lndg length toward NE restricted to 7493′ during IFR conditions and hrs of darkness. Rnwy 4L–22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. [1]Non-standard cntrline apch lgt sys. [2]Sequence flashers extend only 1200′.
Boston Tower 118.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7
Radar Services: (BCN)
Boston App Con [2]120.6 [1]126.5 126.2 124.4 122.5R 110.3T 382T
Boston Dep Con 119.1 124.4
PAR[4] Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.
ILS 110.3 I–BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I–LIP[3] Apch Brg 330° BC unusable **LOM:** 346/LI
Boston (H)VORTAC 112.7/BOS on fld.
Boston RBn H–SAB 382●/BOS 234° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219′ MSL. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR **FSS:** WINDSOR LOCKS

DEVENS RBn MHW 352/AVE

FALL RIVER RBn MHW 395/FLR **FSS:** NANTUCKET

FITCHBURG RBn MHW 206/FIT **FSS:** BOSTON

GARDNER (L)BVORTAC 110.6/GDM **FSS:** WORCESTER

HYANNIS
§BARNSTABLE MUNI *IFR* 1 N **FSS:** NANTUCKET (DL)
52 H55/6–24(2) (S–63, T–110, TT–) BL5, 6, 8A, 9, 11 S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6
Remarks: Poles SE, SW. Rnwy 11–29 usable Oct 15–Apr 30 VFR days & by pilot req only.
Hyannis Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 127.7 134.1 116.8T
Otis Dep Con 127.7
ILS[1] 110.5 I–HYA Apch Brg 245° BC unusable **LOM:** 342/HY
Hyannis (L)BVORTAC 108.6HYA 241° 3.2 NM to rnwy 24.
Remarks: [1]Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM **FSS:** BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY **FSS:** NANTUCKET

MASSACHUSETTS—*Continued*

§NANTUCKET MEMORIAL *IFR* 3 SE FSS: NANTUCKET on Fld
47 H50/6–24(2) (S–31, T–55, TT–) BL5, 6, 8A, 9 S3
F4 DT2 **RVV:** Rnwy 24
Tower [1]118.3 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 118.2 134.1 116.8T
Otis Dep Con 118.2
ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC
Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.
VHF/DF: ctc FSS.
Remarks: [1]Oper 1200–0400Z advisory svc other times.

§NEW BEDFORD MUNI *IFR* 2 NW FSS: NANTUCKET (DL)
79 H50/5–23(2) (S–63, T–110, TT–) BL5,6,8, S5 F4 JP1 U2 DT2
Remarks: ILS apch zone for rnwy has unlgtd trees protruding above the 7 : 1 slope.
Tower 121.3 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I–EWB Apch Brg 053° **LOM:** 274/EW

NORWOOD RBn MHW 212/OWD FSS: BOSTON

PITTSFIELD RBn MHW 343/PSF FSS: ALBANY

PROVINCETOWN MHW 230/PVC FSS: NANTUCKET
Operd Mass Aero Comm

WESTFIELD
§BARNES MUNI *IFR* 3 N FSS: WINDSOR LOCKS (LC 739–7132)
270 H90/2–20(3) (S–63, T–110, TT–195) BL5, 6 S3 F4, JP4 DT2
Remarks: Jet barrier rnwy 2–20.
Westfield Tower[1] 121.3 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 120.0 134.1 109.2T 114.0T
Westfield Dep Con: 120.0 134.1
Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 1200–0400Z.

WHITMAN (L)BVORTAC 109.0/HTM FSS: BOSTON

§WORCESTER MUNI *IFR* 3 W FSS: WORCESTER on Fld
1009 H70 (11–29(3) (S–137, T–180, TT–297) BL6, 7, 12 S5
F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: Rnwy 29 threshold displaced 150′.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I–ORH Apch Brg 332° BC unusable **LOM:** 282/OR
Remarks: [1]ILS glide slope unusable below 1209′ MSL acct roughness 750′ inside MM to ldg threshold. Auto and manual apchs below alt not authorized.

MICHIGAN

ALMA RBn MH 329/AMN FSS: SAGINAW

ALPENA
§PHELPS COLLINS *IFR* 6 W FSS: PELLSTON (DL)
689 H90(18–36 (3) (S95–T125–TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: Rnwy 18 9000′ avbl ldg, 8000′ apbl tkoff. Rnwy 36 8000′ avbl ldg. Rnwy 36 threshold displaced 1000′. Jet barrier 1050′ S of apch end rnwy 18. GCA(ASR–PAR) VFR trng status for availability ctc twr, GCA civil freqs 118.5, 134.1 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5R
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN

MICHIGAN—*Continued*

BATTLE CREEK
§W K KELLOGG REGIONAL AIRFIELD *IFR* 3 W **FSS:** JACKSON (DL)
941 H70/4–22(4) (S–80, T–140, TT–255) BL4,6,8A,9 S5 F5 TP–1
Remarks: Rnwys 9–27, 18–36 clsd during winter months. E ramp S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR Adv Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I–BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141′ MSL. LOM is MHW.

BELLAIRE RBn HW 251/ATM FSS: TRAVERSE CITY

BENTON HARBOR RBn MHW 400/BEH FSS: SOUTH BEND
Remarks: Privately owned and operated. Public instr flt rule apch procedure predicated on facil.

BOYNE FALLS RBn MHW 263/BFA FSS: PELLSTON
Remarks: VFR use only.

CADILLAC RBn MHW 269/CAD FSS: TRAVERSE CITY

CARLETON (L)BVORTAC 115.7/CRL FSS: DETROIT

CHARLEVOIX RBn MHW 222/CVX FSS: PELLSTON

COLDWATER RBn MHW 224/CWM FSS: JACKSON

DETROIT
§DETROIT CITY *IFR* 5 NE AOE **FSS:** DETROIT on fld
626 H51/15R–33L(3) (S250 T–350 TT) BL4, 11 S5 F4, JP1
U2 **REIL:** Rnwy 15
Remarks: 1063′ (1749′ MSL) 1057′ (1738′ MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0
ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226
ILS 111.3 I–DET Apch Brg 146° BC unusable **LOM** 338/DE
Remarks. **VOT:** 109.8

§DETROIT METROPOLITAN WAYNE *IFR* 13 SW AOE
FSS: DETROIT (DL)
639 H105/3L–21R (4) (S–200, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R
REIL: Rnwy 3R
Remarks: Rnwy 15 threshold displaced 650′. Fee.
Metro Tower 121.1 126.2 122.7R 122.7R 109.3T 110.7T
‡Clrnc Del 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[2] 125.15[1] 123.7[2]
Metro Dep Con 118.4[1] 123.7[2]
Tfc Info Ctc 123.7, 124.9 App Con.
ASR Rnwy 9, 3L, 3R, 21L, 27, 33 Ceil 400 Vsby 1 mi Min Alt 1039 Rnwy 21R Ceil 500 Vsby 1 mi Min Alt 1139
ILS 109.3 I–DTW Apch Brg 032° **LOM:** 388/DT
110.7[3] I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H–SAB 388●/DT 121°
Remarks: LOM is SAB. [1]001–180, [2]181–360, [3]ILS unusable for auto apchs below 400′ AGL. Lclzr unusable beyond 12 mi outside 20° E side front crs. **VOT:** 109.0.

§WILLOW RUN *IFR* 19 SW **FSS:** DETROIT (DL)
716 H75/5–23(6) (S–60, T–90, TT–200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500′ rnwy 9L not visible from twr. 320′ overrun area SW end rnwy 5R–23L usable only tkoff rnwy 5R ldg rnwy 23L.
Tower 121.3 122.6R ~~121.5~~ 109.5T 114.9T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro Dep Con 118.4 123.7

MICHIGAN—*Continued*

Tfc Info Ctc Metro App Con on 124.9 or 123.7
ILS 109.5 I–YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF Ctc FSS
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

ESCANABA (L) BVOR 110.8/ESC **FSS:** MARQUETTE (DL)

FLINT
§BISHOP *IFR* 3 SW **FSS:** LANSING (DL)
781 H56/9–27 (S–40, T–60, TT–110) BL4,5,6,8A,9 S5 F4 U2 **RVV:** Rnwy 9.
Remarks: Rnwy 18 threshold displaced 635′.
Flint Tower 119.5 126.3 122.5R ~~121.5~~ 111.6T 109.9T
Gnd Con 121.9
VFR ADV Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

GAYLORD (T) BVOR 109.2/GLR **FSS:** PELLSTON

GRAND MARAIS RBn HW 341/GMI **FSS:** MARQUETTE

GRAND RAPIDS
§KENT COUNTY *IFR* 6 SE **FSS:** SAGINAW
793 H66/8–26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1 U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26. **REIL:**[1] Rnwys 8, 36
Remarks: [2]Non-Fed.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS[1] 109.7 I–GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 970′ MSL.

GROSSE ILE RBn HW 414/NFB

HOUGHTON (L)BVOR 112.8/CMX **FSS:** HOUGHTON
RBn H–SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT **FSS:** MARQUETTE

IRONWOOD (L)BVOR 108.8/IWD **FSS:** MARQUETTE

JACKSON
§REYNOLDS MUNI *IFR* 2W **FSS:** JACKSON on Fld
1000 H53/5–23(2) (S–60, T–80, TT–) BL5,11 S5 F4 U2
REIL: Rnwy 23 (1200–0400Z)
Remarks: Rnwy 5 threshold displaced 559′. Rnwy 31 threshold displaced 475′.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clrnc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
Jackson RBn MHW 281/JXN. 219° 2.1 NM to fld.
Remarks: [1]Oper 1200–0400Z.

§KALAMAZOO MUNI *IFR* 1SE **FSS:** SOUTH BEND (DL)
874 H53/17–35(3) (S–30, T–50, TT–85[1]) BL4,6,8A,9 S5 F4 JP5
Remarks: [1](S–40, T–65, TT–110) avail rnwys 5–23 & 9–27. Rnwy 5 threshold displaced 496′ NE, rnwy 9 threshold displaced 325′ E, rnwy 27 threshold displaced 225′ W.
Tower[1] 118.3 122.7R 121.5 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[2] 110.9 1–AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200–0400Z. Lclzr and glide slope monitored by ATU. LOM unmonitored 2300–0700.

KEELER (L) BVOR 115.1/ELX **FSS:** SOUTH BEND
Remarks: To be BVORTAC Sep 19.

MICHIGAN—*Continued*

KINCHELOE (L) VOR 108.6/INR
RBn MHW 410/IN

LANSING
§CAPITAL CITY *IFR* 3NW **FSS:** LANSING on Fld
859 H65/9–27(2) (S–30, T–40, TT) BL5,6,8A,11 S5 F4, JP1 **RVR:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037′ (1889′ MSL) twr 8 NM ESE and 1023′ (1923′ MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R ~~121.5~~ 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.
ILS 110.1 I–LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL **FSS:** TRAVERSE CITY

MARQUETTE (L) BVORTAC 109.0/MQT **FSS:** MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM **FSS:** GREEN BAY

MT. PLEASANT (L) BVOR 109.8/MOP **FSS:** SAGINAW

§MUSKEGON CO *IFR* 4S **FSS:** MUSKEGON on Fld
628 H56/14–32(3) (S–40, T–65, TT–110) BL6,8A,9 S5 F4 U2
RVR: Rnwy 32
Remarks: Rnwy 36 threshold displaced 300′. Rnwy 14 threshold displaced 300′.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 1–MKG Apch Brg 317° BC unusable **LOM:** 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828′ MSL.

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

PELLSTON (L) BVOR 111.8/PLN **FSS:** PELLSTON
RBn (H) 332/PLN

§PONTIAC MUNI *IFR* 5W **FSS:** DETROIT (DL)
974 H53/9–27(3) (S–40, T–65, TT–110) BL6 S5 F4 U2
Tower [1]120.5 122.5R ~~121.5~~ 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK
Remarks: [1]Oper 0700–2300 lcl time.

PULLMAN (H) BVORTAC 112.1/PMM **FSS:** SOUTH BEND

REED CITY RBn MHW 275/RCT **FSS:** MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW **FSS:** SAGINAW on fld
667 H56/–5–23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 0700–2300 lcl time.

SALEM (L) BVORTAC 114.3/SVM **FSS:** DETROIT

§SAULT STE MARIE MUNI *IFR* 1SW AOE
FSS: SAULT STE MARIE on Fld
722 H50/14–32(1) BL5, 11 S3 F4
REIL: Rnwy 14.
VFR ADV: Ctc Kincheloe for APP CON/DEP CON on 119.0.
(H) BVORTAC 112.2/SSM 337° 4.2 NM to fld.
RBn H–SAB 400●/SSM 313° 2NM to fld.

SAWYER (H) VOR 117.5/SAW
RBn HW 359/SAW

THREE RIVERS RBn MHW 407/HAI **FSS:** JACKSON

MICHIGAN—*Continued*

TRAVERSE CITY (L) BVOR 112.4/TVC FSS: TRAVERSE CITY
RBn H-SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC FSS: MUSKEGON

WHITEFISH (L) BVORTAC 116.6/FSP FSS: SAULT STE MARIE

MINNESOTA

ALEXANDRIA (L) BVOR) 112.8/AXN FSS: ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM FSS: ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE FSS: HIBBING

BEMIDJI (L) BVOR 108.6/BJI FSS: HIBBING

BRAINERD (L) BVOR 109.2/BRD FSS: ALEXANDRIA

DARWIN (L) BVORTAC 109.0/DWN FSS: MINNEAPOLIS

§DULUTH INTL *IFR* 5NW (AOE) FSS: HIBBING
1429 H101/9-27(3) (S-80, T-112.5, TT-205) BL4,6,8A,9,10 F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9-27
Remarks: Jet barrier 2650′ from apch end rnwy 9 and 600′ from apch end rnwy 27. 1000′ overruns rnwy 9-27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I-DLH Apch Brg 087° **LOM:** 379/DL
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H-SAB 379●/DL 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H-SAB. [1]Glide slopes unusuable beyond 12NM.

EVELETH (T) BVOR 108.2/EVM FSS: HIBBING

FERGUS FALLS (T) BVOR 110.4/FFM FSS: ALEXANDRIA
Remarks: State owned. VFR use only.

FAIRMONT (T)BVOR 110.2/FRM FSS: MASON CITY
Remarks: VFR use only.

FARMINGTON (L) BVOR 115.7/FGT FSS: MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ FSS: HIBBING

HIBBING (L) BVOR 110.8/HIB FSS: HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL FSS: HIBBING

MANKATO (L) BVOR 110.8/MKT FSS: MINNEAPOLIS

MINNEAPOLIS

§CRYSTAL *IFR* 8NW FSS: MINNEAPOLIS (DL)
869 H32/13L-31(2) (S-21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Rnwy 5L-23R threshold displaced 400′ lndg distance avbl 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600-2200.

§FLYING CLOUD *IFR* 11SW FSS: MINNEAPOLIS (DL)
909 H36/9L-27R(3) (S-14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3

MINNESOTA—*Continued*

Tfc Info: Ctc Minneapolis App Con 126.5.
(L) BVOR 111.8/FCM at fld.
Remarks: [1]Oper 0600-2200.

§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) *IFR* 6S FSS: MINNEAPOLIS on Fld
840 H100/11R-29L(3) (S-110, T-150, TT-270) BL6,8A,9,10,11 S5, F5 JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4, 29L **RVV:** Rnwy 29L
REIL Rnwy 11R, 22
Remarks: First 1000′ NE end rnwy 4-22 clsd to non-mil acft. Rnwy 11L-29R threshold displaced 610′ SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2 117.3T 110.37 109.39
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 200 Vsby ½ mi Min Alt 1040
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295° **LOM:** 266/MS
109.3[1] I-APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H-SAB 266●/MSP 287° 2.4NM to fld.
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusable beyond 16 nmi. LOM is H-SAB. **VOT:** 111.0.

NEW ULM RBn MHW 272/ULM
Remarks: VFR use only. Owned and operated by the state.

NODINE (H) BVORTAC 117.9/ODI FSS: LaCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD FSS: GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF FSS: REDWOOD FALLS

§ROCHESTER MUNI *IFR* 7S FSS: ROCHESTER on Fld
1310 H64/13-31(2) (S-126, T-159, TT-260) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 31
Remarks: Rnwy 2-20 clsd to acft over 50,000 lbs GWT unless cross wind component rnwy 13-31 exceeds 25 knots.
Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.8
App Con 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I-RST Apch Brg 307° **LOM:** 254/RS
(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC FSS: MINNEAPOLIS
Remarks: VFR use only.

ST PAUL

§ST PAUL-DOWNTOWN (Holman Fld) *IFR* 1S FSS: MINNEAPOLIS (DL) 703 H55/12-30(3) S-54, T-87, TT-160) BL2,5,11 S5 F5, JP5 U2 **REIL:** Rnwy 30
Remarks: 4562′ avbl lndg rnwy 12.
St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R 117.3T 111.8T 110.3T 109.3T 266T
Minneapolis Dep Con 119.3
Tfc Info Ctc Minneapolis App Con on 126.5.
St Paul (T)BVOR 108.6/STP 289° 4.6NM to fld.
Remarks: [1]Oper 0600-2200 lcl time.

MINNESOTA—*Continued*

THIEF RIVER FALLS (L) BVOR 108.4/TVF FSS: GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

WILLMAR (T) BVOR 108.4/ILL FSS: REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA FSS: LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG FSS: REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS FSS: TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV FSS: MOBILE

GREENVILLE (T) BVOR 110.2/GLH FSS: GREENWOOD

GREENWOOD (H) BVORTAC 114.7/GRW FSS: GREENWOOD

§GULFPORT MUNI *IFR* 3NE FSS: MOBILE (LC 436-4242)

28 H90/13-31(3) (S-80, T-120, TT-210) BL4,6 S5 F5, JP1 U2

Remarks: Arrest barrier in oper on Rnwy 13-31. J-bar avbl Rnwy 13-31 on 5 min notice. 1000′ overruns ea end Rnwy 13-31.

Tower 121.3 122.5R 109.0T **Gnd Con** 121.9

App Con 124.6 122.5R 109.0T

(L) BVORTAC 109.0/GPT on fld.

HATTIESBURG (L) BVORTAC 110.6/HBG FSS: McCOMB (LC 582-2009)

HOLLY SPRINGS (L) BVOR 112.4/HLI FSS: MEMPHIS

JACKSON

§HAWKINS FIELD *IFR* 2NW FSS: JACKSON

343 H54/16-34(2) (S-30, T-45, TT-80) BL4,6 S5 F4 JP1 U2

Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW. SW 1615′ (1949′) twr 10 NM WSW.

Tower[3] 118.7 126.2 122.5R ~~121.5~~ 278T

Radar Services:

Jackson App Con 123.9[1] 125.2[2]

Jackson Dep Con 123.9 125.2

Jackson RBn H-SAB 260●/JAN 183° 2.3NM to fld.

Remarks: [1]333°-152°. [2]153°-332°. [3]1200-0400Z.

§THOMPSON FIELD *IFR* 5E FSS: JACKSON on Fld

345 H85/15L-33R(2) (S-120, T-150, TT-265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.

Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7

Radar Services: (BCN)

Jackson App Con 125.2[1] 123.9[2]

Jackson Dep Con 125.2[1] 123.9[2]

ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745

Tfc Info: Ctc App Con

ILS 110.5 I-JAN Apch Brg 153° **LOM:** 365/JA

Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.

VHF/DF Ctc FSS

Remarks: [1]153°-332°. [2]333°-152°.

KEESLER RBn HW 391/BIX

KEWANEE (L) BVOR 113.8/EWA FSS: MERIDIAN

LAUREL (L) BVOR 108.6/LUL FSS: MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB FSS: McCOMB

MERIDIAN

§KEY FIELD *IFR* 3SW FSS: MERIDIAN on Fld

297 H80/1-19(2) (S-45, T-120, TT-220) BL6 S3 F4, JP3

RVV: Rnwy 01

Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Jet barrier rnwy 1-19. Servicing Fee after 7 P.M.

Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

Meridian App Con 120.5

Meridian Dep Con 124.8

MISSISSIPPI—*Continued*

ILS 110.1 I-MEI Apch Brg 004° BC unusable **LOM:** 356/ME

Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.

Remarks: [1]Twr opers 1300-0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ FSS: McCOMB

PICAYUNE (L) BVOR 112.2/PCU FSS: NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP FSS: MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR FSS: COLUMBIA

BLUE SPRINGS (L) BVORTAC 113.6/BSP FSS: KANSAS CITY

BULTER (H) BVOR/DME 115.9/BUM FSS: KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI FSS: CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI FSS: COLUMBIA

DOGWOOD (L) BVORTAC 109.4/DGD FSS: SPRINGFIELD

FARLEY RBN MHW 290/FRY FSS: KANSAS CITY

FARMINGTON (H) BVORTAC 115.7/FAM FSS: CAPE GIRARDEAU

FORNEY (L) VOR 110.0/TBN

RBn MH 391/TBN

HALLSVILLE (L) BVORTAC 115.4/HLV FSS: COLUMBIA

JEFFERSON CITY (L) BVOR 110.2/JEF FSS: COLUMBIA

§JOPLIN MUNI *IFR* 4NE FSS: JOPLIN on Fld

980 H55(3) BL4,6 S5 F4 U1

Remarks: 999′ (2049′ MSL) twr 5 NM SSW.

ILS[1] 110.3 I-JLN Apch Brg 131° **LOM:** 219/JL

Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

KANSAS CITY

§MID-CONTINENT INTL *IFR* 15NW FSS: KANSAS CITY

1011 H90/18-36(1) (S-100, T-188, TT-350) BL6,8A,9

RVR: Rnwy 36

Tower 120.7 **Gnd Con** 121.8

Radar Services:

Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T **Kansas City Dep Con** 118.1

Tfc Info Ctc Kansas City App Con.

ILS 110.5 I-MCI Apch Brg 005° **LOM:** 359/MC

RBn H-SAB 359/MC 005° 4.4 to rnwy 36.

Remarks: [1]E sector. [2]W sector. LOM is H-SAB.

§KANSAS CITY MUNI *IFR* 4N FSS: KANSAS CITY on Fld

758 H70/18-36(3) (S-110, T-165, TT-365) BL4,6,8A,9,11,13 S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36

Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.

Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9

ATIS: [4]111.4

Radar Services: (BCN)

App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T

Dep Con 118.1

Tfc Info: Ctc App Con

PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.

ILS[3] 109.9 I-MKC Apch Brg 187° BC unusable **LOM:** 219/MK

(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.

Riverside (T) VOR 111.4/RIS on fld.

VHF/DF Ctc twr.

Remarks: Acft approaching from 001-180° use 118.9 and/from 179°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. [4]Oper 0600-2400 lcl time

VOT: 108.6.

MISSOURI—*Continued*

KIRKSVILLE (H) BVORTAC 114.6/IRK **FSS:** KIRKSVILLE

LAKE RBn HW 385/LAQ **FSS:** ST. LOUIS

MACON (L) BVOR 112.9/MCM **FSS:** KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW **FSS:** CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP **FSS:** VICHY

MARSHALL (L) BVOR/DME 109.6/MHL **FSS:** COLUMBIA

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS **FSS:** ST LOUIS

NEOSHO (L) BVOR 116.6/EOS **FSS:** JOPLIN

READSVILLE (L) BVOR 112.0/REA **FSS:** COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW **FSS:** KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW **FSS:** ST. LOUIS

ST JOSEPH
§ROSECRANS MEMORIAL *IFR* 3WNW **FSS:** KANSAS CITY (DL)
826 H80/17-35(3) (S-60, T-160, TT-250) BL4,6,8 S5 F4
RVV: Rnwy 35
Tower 119.9 122.5R **Gnd Con** 121.9
Kansas City App Con 121.1 126.2 122.7R 118.9
Kansas City Dep Con 118.1
ILS[1] 110.3 I-STSJ Apch Brg 352° **LOM:** 260/ST
(L) BVORTAC 108.2/STJ 167° 10.7NM to fld.
Remarks:[1] ILS unusable below 1060′

ST. LOUIS
§LAMBERT-ST LOUIS *IFR* 10NW **FSS:** ST. LOUIS on Fld
571 H100/12R-30L(4) (S-100, T-200, TT-400) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24
Remarks: Arresting gear all rnwys excp rnwy 12L-30R. Threshold lgts permly relctd 476′ SE apch end rnwy 12R.
St. Louis Tower 118.5 126.2 122.7R **Gnd Con** 121.9
‡Clrnc Del 119.5
ATIS[4]**:** 110.3 109.7
Radar Services: (BCN)
St. Louis App Con 126.5[1] 123.7 118.1[2]
117.4T 110.3T 109.7T **St. Louis Dep Con** 119.9
Tfc Info Ctc St. Louis App Con.
PAR[3] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° **LOM:** 404/ST
109.7 I-LMR Apch Brg 117° **LOM:** 338/LM
VHF/DF Ctc twr.
St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.
St. Louis RBn (H-SAB) 338●/LM 117° 5.3NM to fld.
Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [3]Radar monitoring of instrument apchs only at pilot's request. LOM is H-SAB. [4]Opers 0600-2400 lcl. **VOT:** 111.0

§ SPIRIT OF ST. LOUIS 20W **FSS:** ST. LOUIS (DL)
462 H51/7-25(1) (S-30) BL6 S5 F4 DT2
Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, lndgs not authorized.
Tower[1] 118.3 122.5R 121.5X **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.
Remarks: [1]Opers 1200-0300Z. [2]Southeast arrivals. [3]Northwest arrivals.

§SPRINGFIELD MUNI *IFR* 5NW **FSS:** SPRINGFIELD on Fld
1267 H56/1-19(2) (S-65, T-95, TT-165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1
Tower 119.9 122.5R **Gnd Con** 121.9
VFR ADV 125.8
App Con 125.8 122.5R 116.9T 109.9T
ILS 109.9 I-SGF Apch Brg 015° **LOM:** 404/SG
(H) BVORTAC 116.9/SGF 193° 6.8NM to fld
RBn H-SAB 254●/SGF 137° 3.6NM to fld
VHF/DF: ctc FSS.

VICHY (L) BVORTAC 117.7/VIH **FSS:** VICHY

WHITEMAN (L) VOR 109.0/SZL
RBn HW 314/SZL

MONTANA

BILLINGS
§LOGAN FIELD *IFR* 2NW **FSS:** BILLINGS on Fld
3606 H86/9-27(3) (S-130, T-200, TT-400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9
Remarks: 1000′ overrun each end rnwy 9-27.
Billings Tower 118.3 122.5R
VFR ADV: 120.5
Billings Gnd Con 121.9
Billings App Con 120.5 122.5R 114.5T 110.3T
ILS 110.3 I-BIL Apch Brg 095° **LOM:** 251/BI
Billings (H) BVORTAC 114.5/BIL 070° 3.2NM to fld
Billings RBn H-SAB 400 /BIL 243° 1.4NM to fld
VHF/DF: Avail ctc FSS.

BOZEMAN (L) BVOR 112.2/BZN **FSS:** BOZEMAN
RBn H-SAB 329●/BZN

BUTTE (L) BVORTAC 111.6/BTM **FSS:** BUTTE

CUT BANK (L) BVORTAC 114.4/CTB **FSS:** CUT BANK
RBn[1] **BH** 263/CTB
Remarks: [1]VFR use only.

DILLON (H) BVORTAC 113.0/DLN **FSS:** DILLON
RBn[1] **BH** 379/DLN
Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU **FSS:** MISSOULA

GLASGOW (H) VOR 113.9/GSG
RBn H 236/GSG

§GREAT FALLS INTL *IFR* 3SW **FSS:** GREAT FALLS on Fld
3671 H90/3-21(4) (S-60, T-80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34
Remarks: Rnwy 7-25 not authorized to acft over 64,000 lbs GWT. Jet barrier rnwy 3-21.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1 119.3 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.1 119.3 or 122.7R
ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171
ILS 110.3 I-GTF Apch Brg 341° BC unusable **LOM:** 371/GTF
(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld
RBn H-SAB 371/GTF 009° 0.9 NM to fld.
Remarks: LOM is H-SAB.

§HELENA *IFR* 2NE **FSS:** HELENA on Fld
3873 H70/8-26(3) (S-90, T-120, TT-200) BL 5,11 S5 F4, JP1 U2 **REIL** rnwy 26
Remarks: Rnwy 11-29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
(H) BVORTAC 117.7/HLN at fld.
RBn[1] **SBH** 317/HLN
Remarks: [1]VFR use only.

MONTANA—*Continued*

KALISPELL (L) BVOR 108.4/FCA FSS: MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT FSS: LEWISTOWN
RBn[1] **SBH** 353/LWT
Remarks: [1] VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM FSS: LIVINGSTON
RBn[1] **BH** 224/LVM
Remarks: [1] VFR use only.

MALMSTROM (L) VOR 116.3/GFA

MILES CITY (H) BVORTAC 112.1/MLS FSS: MILES CITY
Rbn (H–SAB) 320 /MLS

§MISSOULA CO ***IFR*** 4NW FSS: MISSOULA on Fld
3203 H–70/11–29(3) (S–120, T–155, TT–235) BL6 S5 F4 U2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1] Oper 1300–0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA FSS: BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA FSS: SCOTTSBLUFF
RBn[1] **HW** 287/AIA
Remarks: [1] Owned by State.

BEATRICE (T) BVOR 110.6/BIE FSS: LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR FSS: CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

COLUMBUS (T) BVOR 110.4/OLU FSS: LINCOLN
Remarks: Owned by State.

§GRAND ISLAND MUNI ***IFR*** 4NE FSS: GRAND ISLAND on Fld
1846 H72(3) (S–42, T–65, TT–125) BL5,6,8A,9 S5 U–1 F5, JP–1
Remarks: 1000′ asphalt overrun both ends rnwy 17–35. BAK/12 arresting gear lctd 90′ in overrun rnwy 35 and 80′ in overrun rnwy 17.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1] Oper 1200–0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI FSS: GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT FSS: IMPERIAL

IMPERIAL RBn BH 391/IML FSS: IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN FSS: SIOUX CITY

KEARNEY (T) BVOR 111.2/EAR FSS: GRAND ISLAND
Remarks: Owned by state.

§LINCOLN MUNI/AFB ***IFR*** 4NW FSS: LINCOLN on Fld
1198 H129/17R–35L(2)[1] (Max–15) BL6,8A,9,11 S5
F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: [1] All civ acft use 4000′ rnwy 17L–35R except Max 30, BL6 in actual IFR conditions or when acft manufacturers' recommendations rqr the use of rnwy 17R–35L. ·Ctn-jet tfc. Rnwy 17L–35R (S–31, T–50, TT–87)
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I–LNK Apch Brg 351° **LOM:** 385/LN
(L) BVORTAC 116.0/LNK
RBn MHW 385/LN

NEBRASKA—*Continued*

Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC.

McCOOK (L) BVOR 110.0/MCK FSS: NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK FSS: OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF FSS: NORTH PLATTE
RBn H–SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD ***IFR*** 3NE FSS: OMAHA on Fld
983 H85/14–32(2) (S–180, T–200, TT–400) BL4,8A,9,11,12
S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: US Customs lndg rgts arpt.
Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
ATIS: 110.3
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R 116.3T[2]
Omaha Dep Con 124.5 118.0 122.5R[3]
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I–OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H–SAB 320●/OM 136° 4.1 NM to rnwy 14.
Remarks: [1] BC unusable beyond 16 NM. [2] Freqs for Shenandoah, Iowa. [3] Opers 0600–2300. LOM is H–SAB.

O'NEILL (H) BVORTAC 113.9/ONL FSS: GRAND ISLAND

PAWNEE CITY (H) BVORTAC 112.4/PWE FSS: LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF FSS: SCOTTSBLUFF
RBn MHW[1] 341/BFF
Remarks: [1] Operd by State.

SIDNEY (H) BVOR 115.7/SNY FSS: SIDNEY

WOLBACH (H) BVORTAC 114.7/OBH FSS: GRAND ISLAND

NEVADA

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM FSS: ELKO

BEATTY (H) BVORTAC 114.7/BTY FSS: TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD FSS: LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL FSS: TONOPAH

CURRANT (L) BVOR 113.4/URR FSS: ELY

ELKO (L) BVORTAC 114.5/EKO FSS: ELKO
RBn SBH 391/EKO

ELY (L) BVOR 110.6/ELY FSS: ELY

HAZEN (L) BVORTAC 114.1/HZN FSS: LOVELOCK

INDIAN SPRINGS RBn HW 215/INS

LAS VEGAS
§McCARRAN ***IFR*** 5S FSS: LAS VEGAS on fld.
2171 H125/7–25(3) (S–100, T–200, TT–380) BL4,6,10 S5
F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750′W end. 11,795′ avbl lndg rnwy 7 and tgof rnwy 25 day/ngt. 12545′ avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625′ SW end. 6878′ avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503′ avbl lndg rnwy 19 and tgof rnwy 1 day/ngt . Rnwy 32 threshold displaced 379′ SE end. 4021′ avbl rnwy 32 day/ngt. 4400′ avbl tkof rnwy 32 day only. 4021′ avbl tkof rnwy 32 ngt only. 4400′ avbl lndg rnwy 14 day only. 4021′ avbl lndg rnwy 14 ngt only. 4021′ avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 125.9 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.

NEVADA—*Continued*

ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H–SABZ 206●/LAS 196° 8.5 NM to rnwy 19.

LOVELOCK (L) BVORTAC 116.5/LOL FSS: LOVELOCK

MERCURY RBn HW 326/MCY

MINA (L) BVOR 113.1/MVA FSS: TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM FSS: LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO FSS: LOVELOCK

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§RENO MUNI *IFR* 2SE FSS: RENO on Fld
4411 H90/16–34(2) (S–100, T–160, TT–250)* BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: A-gear each threshold rnwy 16–34. *Rnwy 7–25 (S–100, T–200, TT–350).
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 254T
ILS 109.3 I–RNO Apch Brg 162° **LMM:** 254/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn SBH 254/RNO 161° 2.3NM to fld.
Remarks: LMM is SBH. RBn/LMM to be MHW; freq 351 Sep 22.

SOD HOUSE (L) BVOR 114.3/SDO FSS: LOVELOCK

SPARKS RBn MHW 329/SPK FSS: RENO

TONOPAH (L) BVORTAC 117.2/TPH FSS: TONOPAH

WELLS (L) BVOR 114.2/LWL FSS: ELKO

WILSON CREEK (H) BVOR 116.3/ILC FSS: CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML FSS: CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON FSS: CONCORD

KEENE (L) BVOR 109.4/EEN FSS: CONCORD
RBn MHW[1] 224/EEN
Remarks: [1]Oper by State.

LACONIA RBn MHW 400/LCI FSS: CONCORD (LC 524–2236)
Remarks: Oper by State.

LEBANON (L) BVOR 113.7/LEB FSS: LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) *IFR* 4S FSS: CONCORD (LC 669–1641)
233 H70/17–35(2) (S–127, T–200, TT–400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower 121.3 126.2 122.5R
ILS 108.3 I–MHT Apch Brg 352° BC unusable
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW[1] 338/MHT 352° 3.5NM to fld.
Remarks: [1]Oper by State.

NASHUA RBn MHW 260/AMH FSS: CONCORD (LC 889–0301)
Remarks: Oper by State.

NORTH CONWAY RBn MHW 334/CWN FSS: CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR FSS: CONCORD
Remarks: To be in common system.

WHITEFIELD RBn MHW 272/HIE FSS: LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) *IFR* 9NW FSS: MILLVILLE (LC 399–8096)
76 H100/13–31(4) (S–63, T–88, TT–160) BL4,6,8A,9 S3 F5, JP4 DT2
Remarks: Fee. BAK/9 arresting gear installed 2000′ from threshold rnwy 13 and 1000′ from threshold rnwy 31. Pendant 1½″ steel cable stretched across rnwy 31; ½–4″ above surface with rubber doughnuts extending 6″ above surface. Pendant may gyrate. Unlgtd frangible distance to go mrkrs every 1000′ each side rnwy 13–31.
Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I–ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlanta City NAFEC (L) VORTAC 108.6/ACY at NAFEC
VHF/DF Ctc twr.
Remarks: [1]400 authoriezd for rnwys 13, 17, 22, 26, 31.

BARNEGAT (L) BVOR 116.7/BGT FSS: MILLVILLE

CHATHAM RBn MHW 254/CAT FSS: NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL FSS: TETERBORO

COYLE (H) BVORTAC 113.4/CYN FSS: MILLVILLE

LAKEHURST RBn HW 396/NEL

MILLVILLE (L) BVORTAC 115.2/MIV FSS: MILLVILLE
Rng SBRAZ[1] 363/MV
Remarks: [1]Reliable reception distance 50 NM.

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§MORRISTOWN MUNI *IFR* 2E FSS: TETERBORO (LC JE8–2196)
187 H40/4–22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 1600′ rnwy 22. Trng flts by nonbased acft prohibited. Lndg fee. Turbojet operns prohibited rnwy 12; turbojet tkof prohibited rnwy 30. Vehicle tfc crossing at jct N/S txwys; manned intermittently.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6[2] 124.3[3] 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: [1]Oper 0800–2300 lcl time. [2]270–089° [3]090–269°

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§NEWARK MUNI *IFR* 2 S FSS: TETERBORO (DL)
18 H70/4–22(2) (S–115, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE.
Tower 118.3 122.7R
‡Clrnc Del 121.4 **Gnd Con** 121.9
ATIS: 109.1 or 110.3 (Arr)
Radar Services: (BCN)
App Con 120.6[2] 124.3[3] 122.7R
Dep Con 119.2
Tfc Info inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I–EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW[4]
109.1 I–ARK Apch Brg 217° **LOM:** 242/AR
RBn H–SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix [2]270–089° [3]090–269° [4]LOM unusable beyond 12 mi 050–090°. **VOT:** 108.6

NEW JERSEY—*Continued*

PALISADE PARK MHW 233/PAD

PATERSON RBn MHW 347/PNJ FSS: TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV FSS: N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE FSS: MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ FSS: TETERBORO

SPARTA (L)BVORTAC 112.3/SAX FSS: TETERBORO

STILLWATER (L) BVORTAC 109.6/STW FSS: TETERBORO

§TETERBORO MUNI *IFR* 1 SW FSS: TETERBORO on Fld
7 H50/6–24(3) S–50, T–80, TT–) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission. Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14–32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I–TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY *IFR* 4 NW FSS: PHILADELPHIA (LC. 882–1590)
213 H52/6–24(3) S–31.5, T–51, TT–) BL4,11,12,[1] S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. [1]1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R 109.3T
Philadelphia Dep Con 119.0[1] 128.55[2]
ILS 111.3 I–TTN Apch Brg 065° **LOM:** 369/TT
Remarks: [1]270–089°. [2]090–269°.

WOODSTOWN (L)BVOR 112.8/00D FSS: MILLVILLE

NEW MEXICO

ALAMOGORDA RBn HWZ 375/ALM

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE FSS: ALBUQUERQUE on Fld
5352 H127/8–26(4) (S–158, T–200, TT–400) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVR:** Rnwy 35
Remarks: Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC–3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
Gnd Con 121.9
Clrnc Del 119.2
ATIS: 110.3
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
Albuquerque Dep Con 123.9
Tfc Info Ctc App Con 25 mi out on 121.1.
PAR[2] Rnwy 8[1] Ceil 300 Vsby ¾ mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I–ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: [1]500–1½ rqrd for civil jet acft. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO (L)BVOR–DME 110.0/ACH FSS: LAS VEGAS

CANNON (L) VORW 115.7/CVS
RBn HW 272/CVS

NEW MEXICO—*Continued*

CARLSBAD (L)BVOR 116.3/CNM **FSS:** CARLSBAD

CIMARRON (H) BVORTAC 116.4/CIM **FSS:** TRINIDAD

COLUMBUS (L) BVORTAC 111.2/CUS **FSS:** DEMING

CORONA (L) BVOR 115.5/CNX **FSS:** ALBUQUERQUE

DEMING (L) BVOR 108.6/DMN **FSS:** DEMING

§FARMINGTON MUNI *IFR* 2 NW **FSS:** FARMINGTON of Fld
5503 H67(2) (Max–60) BL4 S5 F4 TP1 U2
Tower[1] 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

GALLUP (H)BVORTAC 115.1/GUP **FSS:** ZUNI

GRANTS (L)BVORTAC 116.5/GNT **FSS:** GRANTS

§HOBBS, LEA COUNTY *IFR* 4 W **FSS:** HOBBS on Fld
3659 H63/3–21 (4) (S–115 T–200 TT–400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN (L) VORW 115.8/HMN

LAS VEGAS (H) BVORTAC 117.3/LVS **FSS:** LAS VEGAS

OTTO (L) BVOR 114.0/OTO **FSS:** ALBUQUERQUE

PINON (L) BVOR 110.4/PIO **FSS:** EL PASO

§ROSWELL MUNI *IFR* 1 NW **FSS:** ROSWELL on Fld
3623 H58/17–35(4) (S–42, T–60, TT–110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 120.2 122.7R
Walker Dep Con 123.8
Tfc Info Ctc Walker App Con 30 mi out at 10,000′ and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn SABH[2] 305●/ROW 312° 7.9 NM to fld.
Remarks: [1]Oper 1300–0500Z. [2]Oper 1200–0500Z.

§SANTE FE COUNTY MUNI *IFR* 9 SW **FSS:** SANTA FE on Fld
6344 H83/2–20 (3) (S–45, T–60, TT–) BL4 S5 F4, JP1 U2
Tower 119.5 126.2 122.5R **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO (H) BVORTAC 116.8/ONM **FSS:** ALBUQUERQUE

TAOS (L) BVOR 117.6/TAS **FSS:** SANTA FE

TRUTH OR CONSEQUENCES (H) BVORTAC 112.7/TCS **FSS:** TRUTH OR CONSEQUENCES

TUCUMCARI (H) BVORTAC 113.6/TCC **FSS:** TUCUMCARI

WALKER RBn MHW 396/LK

ZUNI (L) BVORTAC 113.4/ZUN **FSS:** ZUNI

NEW YORK

§ALBANY COUNTY *IFR* 6 NW AOE **FSS:** ALBANY on Fld
288 H50/1–19 (3) (S–110, T–200, TT–400) BL4,6,8A,9,11 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S, trees SE. Rnwy 15–33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I–ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: VOT: 109.0

ALPINE RBn MHW 245/ALP **FSS:** ELMIRA

NEW YORK—*Continued*

AVON RBn MHW 344/AVN **FSS:** ROCHESTER

BABYLON RBn MHW 275/BBN **FSS:** NEW YORK

BECKSGROVE RBn MHW 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY *IFR* 7 N FSS: BINGHAMTON on Fld 1629 H56/16–34(2) (S–94.5, T–135, TT–) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34
Binghamton Tower 119.3 122.5R 114.3T 109.6T
Gnd Con 121.9
Radar Services: (BCN)
Binghamton App Con 118.6 **Binghamton Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I–BGM Apch Brg 338° BC unusable **LMM:** 203/GM
Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.
Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO
§GREATER BUFFALO INTL *IFR* 5 E AOE FSS: BUFFALO on Fld 722 H81/5–23(2) (S–120, T–180, TT–400) BL4, 6, 11 S5 F5, JP1, JP4, JP5 DT2
Remarks: Fee.
Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7
Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7 110.3T
Buffalo Dep Con 125.5
Tfc Info Inbnd acft ctc Buffalo App Con on 126.5 or 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 110.3 1–BUF Apch Brg 232° **LOM:** 219/BU
108.5 I–GBI Apch Brg 052° BC unusable **LOM:** 204/GB
Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld
Buffalo RBn BH 260/BUF 211° 0.9 nm to fld
VHF/DF Ctc App Con.
Remarks: VOT: 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM **FSS:** GLENS FALLS

CANARSIE (T) VORW 111.0/CRI **FSS:** JFK TWR

CARMEL (L) BVORTAC 116.6/CMK **FSS:** TETERBORO

DEER PARK (L) VORTAC 111.2/DPK **FSS:** NEW YORK

DE LANCEY (L) BVOR 112.1/DNY **FSS:** BINGHAMTON

DUNKIRK (L) BVOR 114.2/DKK **FSS:** BUFFALO

ELMIRA
§CHEMUNG COUNTY *IFR* 5 NW FSS: ELMIRA on Fld 951 H56/6–24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2
Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.95 122.5R 120.0[1]
ILS 109.1 I–ELM Apch Brg 239° BC restricted
Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.
Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.
Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE **FSS:** BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT **FSS:** UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL **FSS:** GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO **FSS:** NEW YORK

HANCOCK (L) BVORTAC 109.0 HNK **FSS:** BINGHAMTON

HUGUENOT (H) BVORTAC 116.1/HUO **FSS:** WILKES-BARRE

NEW YORK—*Continued*

ISLIP
§LONG ISLAND–MacARTHUR *IFR* 7 NE **FSS:** NEW YORK on Fld 98 H50/6–24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6
Remarks: Trees E.
Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7
Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
ILS 108.3 I–ISL Apch Brg 057° **LOM:** 366/IS
VHF/DF: ctc FSS.
Remarks: [1]054–110°. [2]110–160°.

ITHACA (L) BVOR 111.8/ITH **FSS:** ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW **FSS:** BRADFORD

KINGSTON (L) BVOR 117.6/IGN **FSS:** POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS **FSS:** MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF
RBn MHW 335/SWF

NEW YORK
§JOHN F KENNEDY INTL *IFR* 11 SE **FSS:** NEW YORK (DL) 12 H146/13R–31L(6) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 13L, 13R **RVR:** Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]
Remarks: Fee. Clsd to fightertype, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R–31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3324′. Rnwy 4L–22R extended til 11,350′ with lndg threshold rnwy 22R displaced 3020′. Rnwy 13L threshold displaced 1000′; rnwy 31R threshold displaced 1036′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Nonstandard. Lead in lgts rnwys 13L and 13R. Rnwy 13R usable 7884′; rnwy 31L usable 6884′.
Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡Clrnc Del 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5
Radar Services: (BCN)
Kennedy App Con 127.4 134.1 135.35 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
PAR Rnwy 4R Ceil 200 Vsby ½ Min Alt 212.
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 31L 22R Ceil 500 Vsby 1 mi Min Alt 512.
Rnwys 31R Ceil 400 Vsby 1 mi Min Alt 412.
ILS 190.5 I–JFK Apch Brg 042° **LOM:** 373/JF[3]
110.9 I–IWY Apch Brg 222° **LOM:** 226/IW
111.5 1–RTH Apch Brg 311° BC unusable. **LOM:** 268/RT
Kennedy (H) BVORTAC 115.9/JFK on fld.
Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.
VHF/DF Ctc twr.
Remarks: [1]054–110°, [2]110–160°. [3]LOM is MHW. **VOT:** 112.5.

§LA GUARDIA *IFR* 4E **FSS:** TETERBORO (DL) 21 H70/4–22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4 **REIL:** Rnwy 13–31, 22
Remarks: Fee. Rnwy threshold displaced 173′ NW. 5813′ avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. 1465′ (1520′ MSL) twr 5 NM WSW. Mag anomalies may affect compass heading when using extensions rnwys 13 and 22 for tkof.
FAA Dep Proc: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
Tower 118.7 122.7R 113.1T 109.9T 108.5T 110.5T
‡Clrnc Del 126.15 **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 1085T 110.5T

NEW YORK—*Continued*

Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [4]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
Rnwy 22 Ceil 200 Vsby ½ mi Min Alt 221
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.
ILS 109.9 I-LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I-GDI[1] Apch Brg 134°
110.5 I-URD[3] Apch Brg 223° BC unusable **LOM:** 385/UR
La Guardia (L) VOR-DME 113.1/LGA 177° 0.4 NM to fld
Palisade Park MHW 233/PAD
VHF/DF Ctc App Con.
Remarks: Flwg shut down indef due arpt constrn: Rnwy 22 apch lgts; Rnwy 4 ILS. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000-3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235-245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 109.0.

§NIAGARA FALLS MUNI *IFR* 4 E **FSS:** BUFFALO (DL)
590 H91/10L-28R(4) (S-90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
Remarks: No signal SS-SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.
Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5 110.3T
Buffalo Dep Con 125.5
ILS 110.1 I-IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF Ctc twr.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200-0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

§ROCHESTER-MONROE CO *IFR* 3 SW AOE **FSS:** ROCHESTER on Fld
560 H70/4-22(5) (S-126, T-160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 28.
Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS-SR to indicate IFR conditions.
Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I-ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I-MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

NEW YORK—*Continued*

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON

ROME RBn HW 212/RME

SARANAC LAKE (L) BVOR 111.2/SLK **FSS:** MASSENA

§SCHENECTADY COUNTY *IFR* 2 N **FSS:** ALBANY (DL)
378 H70/4-22(3) (S-52) BL4, 6 S5 F5, JP5 DT2
Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr. Rnwy 28, 15 and 33 apch restricted by trees.
Tower[1] 126.2 121.3 1225R 356T
Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF Ctc twr.
Remarks: Opers 1200-0400Z.

SYRACUSE
§HANCOCK *IFR* 4 NE **FSS:** SYRACUSE on Fld
421 H90/10-28(3) (S-120, T-190, TT-350) BL4, 6, 8A, 9, 14 S5 F5, JP4 DT2 **RVV:** Rnwy 28
Remarks: Rnwy 6-24 limited to acft under 12,500 lbs GWT.
Syracuse Towerr 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 125.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I-SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY *IFR* 7 NW **FSS:** UTICA on Fld
742 H60/15-33(2) (S-60, T-80, TT) BL4, 6, 8A, 9 S5 F2 U2 DT2 **RVV:** Rnwy 33.
Utica Tower 118.1 122.7R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.7R
Griffiss Dep Con 120.9
ILS 109.3 I-UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WESTHAMPTON BEACH
SUFFOLK COUNTY (T) VOR 110.4/FOK

WHITE PLAINS
§WESTCHESTER COUNTY *IFR* 3NE **FSS:** NEW YORK
439 H65/16-34(3) (S-63, T-110, TT-275) BL4, 8A, 9 S5 F5, JP5 U2 DT2
Remarks: Trees NW, SE. Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I-HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI *IFR* 9 S **FSS:** GREER (LC 684-4401)
2161 H65/16-34(1) (S-100, T-160, TT-275) BL6,8A,9,10 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.

NORTH CAROLINA—*Continued*

Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I-AVL Apch Brg 342° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA **FSS:** ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB **FSS:** WILMINGTON

CHARLOTTE
§DOUGLAS MUNI ***IFR*** 4 W **FSS:** HICKORY (LC 332–8161)
748 H78/18–36 (2) (S–60) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932′ MSL) twr 10 NM ENE. Rnwy 18 threshod displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148
ILS[2] 109.5 I-CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L) BVORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. **VOT:** 112.0

COFIELD (L) BVORTAC 114.4/CVI **FSS:** ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG **FSS:** ELIZABETH CITY

FAYETTEVILLE
§GRANNIS FIELD ***IFR*** 3 S **FSS:** FAYETTEVILLE on Fld
189 H50/3–21(2) (S–64, T–120, TT–200) BL4,6,8A,9 S5 F4, JP4
RVV: Rnwy 3
Remarks: Trees NNW, SSE.
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I-GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG

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§GREENSBORO-HIGH POINT/WINSTON-SALEM ***IFR*** 7 W
FSS: RALEIGH (LC BR 56341)
926 H64/14–32(2) (S–40, T–140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Remarks: Rnwy 5 threshold displaced 290′.
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Grensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1326
ILS[1] 109.9 I-GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY **FSS:** HICKORY

KINSTON (L) BVORTAC 109.6/ISO **FSS:** NEW BERN

LIBERTY (L) BVOR 111.2/LIB **FSS:** RALEIGH-DURHAM

NORTH CAROLINA—*Continued*

NEW BERN (L) BVOR 108.4/EWN **FSS:** NEW BERN

PINEHURST (L) BVORTAC 111.8/SOP **FSS:** FAYETTEVILLE

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§RALEIGH-DURHAM ***IFR*** 9 NW **FSS:** RALEIGH on Fld
435 H75/5–23(3) (S–110, T–160, TT–270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: No signal btn SS–SR indicate gnd vsby of less than 2.6 NM and/or ceil less than 1000.
Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 122.5R 120.6
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I-RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H–SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 633′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT **FSS:** ROCKY MOUNT

SEYMOUR-JOHNSON AFB (L) VOR 116.5/GSB
RBn MHW 285/GSB
ILS[1] 109.3 I-GSB Apch Brg 078° BC unusable **LOM** 285/GSB
Remarks: LOM is MHW. [1]Glide slope unusable below 270′

WEEKSVILLE RBn (HW) 254/EKV **FSS:** ELIZABETH CITY

WILMINGTON
§NEW HANOVER CO ***IFR*** 2 NE **FSS:** NEW BERN
(LC 762–7567)
31 H80/5–23(3) (S–120, T, TT)* BL4, 6, 8A, 9 S5
F5, JP5 **RVR:** Rnwy 34
Remarks: *(S–90, T–120, TT–212) avbl rnwy 5–23 (S–30, T–48, TT–86) avbl rnwy 9–27 Rnwy 9 threshold displaced 2875′ E. Usable length rnwys 9 and 27. 4127′. Due non-vsby some areas of fld, ctc twr. Jet aresting gear rnwy 16–34.
Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9
Clrnc Del 121.9
Wilmington App Con 118.8 122.5R 110.3T
ILS[1] 110.3 I-ILM Apch Brg 343° **LOM:** 281/IL
Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.
Remarks: [1]Glide slope unusable below 223′.

WINSTON–SALEM
§SMITH REYNOLDS ***IFR*** 2NE **FSS:** HICKORY
969 H66/15–33(3) (S–40, T–85, TT–105) BL4, 6, 8, 12 S5
F5, JP5 U2 **RVV:** Rnwy 33.
Remarks: Apch lgts oper 0700–2300 only. Rnwy lgts 15–33 only oper 2300–0700. Rnwy 3–21 (S–56, T–85, TT–105)
Winston-Salem Tower[1] 118.7 126.2 122.7R 278T
Gnd Con 121.7
Radar Services: (BCN)
Greensboro App Con 118.5 122.5R 120.9 109.9T
Greensboro Dep Con 124.6
ILS[2] 110.3 I-INT Apch Brg 328° BC unusable **LOM:** 317/IN
Remarks: [1]Oper 1200–0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300–0700 EST daily.

NORTH DAKOTA

§BISMARCK MUNI ***IFR*** 2 SE **FSS:** BISMARCK on Fld
1677 H69/12–30(3) (S–78, T–114, TT–190) BL4, 6, 8 S5
F4 JP4 U2 **RVV:** Rnwy 30
Remarks: Rnwys 17–35, 2–20 and E–W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to lndg acft. Rnwy 2 threshold displaced 530′ SW end. Rnwy 12 threshold displaced 817′ NW end.

NORTH DAKOTA—*Continued*

Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
ILS 110.3 I–BIS Apch Brg 306° **LOM:** 215/BI
(L) BVORTAC 116.5/BIS 272° 3.6 NM to fld
RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB

DEVILS LAKE (L) BVOR 111.0/DVL FSS: GRAND FORKS

DICKINSON (H) BVORTAC 112.9/DIK FSS: DICKINSON
RBn BH[1] 308/DIK
Remarks: [1]VFR use only.

FARGO
§HECTOR FIELD *IFR* 2NW FSS: FARGO on Fld
900 H91/17–35(3) (S–90, T–120, TT) BL4,6, 8A,9 S5
F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35 **RVR:** Rnwy 35
Remarks: Arresting barriers rnwy 35.
Fargo Tower 118.3 122.5R **Gnd Con** 121.9
Fargo App Con 125.8 110.3T 365T
VFR ADV Ctc App Con 25 mi out on 125.8
ILS 110.3 I–FAR Apch Brg 351° **LOM:** 219/FA
Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld
Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVOR GFK FSS: GRAND FORKS
Remarks: Freq to be 109.4 Sep 26.

JAMESTOWN (L) BVOR 114.5/JMS FSS: JAMESTOWN

MINOT (L) BVOR 117.1/MOT FSS: MINOT
Rng BMRLZ[1] 209/MT
Remarks: [1]Reliable reception distance 70 NM.

PEMBINA (H) BVORTAC 112.4/PMB FSS: GRAND FORKS

RED RIVER (H) VOR 116.7/RDR
RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN FSS: MINOT

OHIO

§AKRON MUNI *IFR* Adj SE AOE FSS: AKRON on Fld
1059 H53/7–25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2
REIL: Rnwys 7 and 25.
Remarks: Poles E. Obstn lgts inop SE hill apch rnwy 32. Rnwy 25 threshold displaced 511′ SW.
Tower 120.1 122.7R 110.9T **Gnd Con** 121.9
Radar Services:
Akron-Canton App Con 125.5 126.2 122.5R 109.5T
Akron-Canton Dep Con 118.6
ILS 110.9 1–AKR Apch Brg 246° **LOM:** 362/AKR
(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld
RBn MHW 362/AKR 246° 3.7 NM to fld.
Remarks: LOM is MHW.

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§AKRON-CANTON *IFR* 10SE FSS: AKRON
1228 H56/1–19(4) (S–120, T–160, TT–250) BL4,6,11 S5 F5, JP1
DT2 **RVV:** Rnwy 1 **REIL:** Rnwy 23
Remarks: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.
Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.5 126.2 122.5R 109.5T
Dep Con 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400
Vsby 1 mi Min Alt 1628
ILS 109.5 1–CAK Apch Brg 006° **LOM:** 233/CA
Remarks: VOT: 115.4.

APPLETON (H) BVORTAC 116.7/APE FSS: COLUMBUS

OHIO—*Continued*

ATHENS RBn MHW 206/UOA FSS: PARKERSBURG

ATTICA (L) BVORTAC 116.9/ATO FSS: MANSFIELD

BELLAIRE (L) BVORTAC 111.0/AIR FSS: WHEELING

BRECKSVILLE RBn MHW 326/BKI FSS: CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV FSS: AKRON

CHARDON (L) BVORTAC 109.8/CXR FSS: CLEVELAND

COVINGTON, KY. (CINCINNATI, OHIO)
§GREATER CINCINNATI *IFR* 9SW Cincinnati FSS: CINCINNATI
890 H86/18–36(2) (S–179, T–283, TT–500) BL4,6,8A,9,11 S5
F5 **REIL:** Rnwy 27 **RVR** Rnwy 18–36
Remarks: Fee.
Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7
Clrnc Del 121.3
ATIS 112.9
Radar Services:
Cincinnati App Con 124.7 126.2 122.7R 119.7
Cincinnati Dep Con 121.0
ASR Rnwys 4, 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290.
Rnwys 22, 27 Ceil 700 Vsby 1 mi Min Alt 1590
ILS 109.9 I–CVG Apch Brg 360° **LOM:** 287/CV
111.5 I–SIC Apch Brg 180° **LOM:** 351/SI
Cincinnati (L) VORTAC 112.9/CVG 043° 2.3 NM to fld
VHF/DF Ctc twr or radar.
Remarks: **VOT:** 108.4.

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§CINCINNATI MUNI-LUNKEN FLD *IFR* 3SE FSS: CINCINNATI on Fld
488 H61/2R–20L(4) (S–55, T–75 TT–167) BL4,6,8A,9 S5 F4, JP4
U2
Remarks: Rnwy 2L threshold displaced 189′ NE. 4795′ avbl lndg rnwy 2L; tkoff rnwy 20R. 4984′ avbl lndg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 701′ SE. 3331′ avbl lndg rnwy 15; tkoff rnwy 33. 4032′ avbl tkoff rwy 15, lndg rnwy 33.
Lunken Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Cincinnati App Con 119.7 126.2 124.7 122.7R
Cincinnati Dep Con 121.0
ILS[1] 110.9 I–LUK Apch Brg 201°
Cincinnati Rng SABRAZ[2] 335/LUK 227° 4.3 NM to fld
Remarks: [1]Glide slope unusable beyond 11 NM below 2700′ MSL. BC unusable beyond 10 NM. [2]Reliable reception distance 60 NM.

CLEVELAND
§BURKE LAKEFRONT Adj N **FSS:** CLEVELAND (DL)
584 H52/6–24(1) (S–31, T–37, TT–55) BL 6 S5 F4, JP1
U2 DT2
Remarks: Fee. Rgt tfc rnwy 24.
Lakefront Tower[3] 120.9 126.2 122.5R **Gnd Con** 121.9
Radar Services
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Remarks: [1]270°–089° [2]090°–269° [3]Oper 1100–0300Z.

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§CLEVELAND-HOPKINS INTL *IFR* 9SW AOE **FSS:** CLEVELAND on Fld
792 H90/5R–23L(5) (S–54, T–78, T–126)* BL4,6,8A,9,10,11 S5
F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27
REIL: Rnwy 36L.
Remarks: *(S-125, T–188, TT–338) avbl rnwy 9–27. Rnwy 23L apch restricted by fence. Rnwy 18L threshold displaced 493′S. 4522′ avbl lndg rnwy 18L; tkof rnwy 36R. 5015′ avbl lndg 36R, tkof rnwy 18L.
Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7
‡Clrnc Del 127.4
ATIS 112.0[5]
Radar Services: (BCN)
Cleveland App Con 124.0[1] 122.7R 118.5[2] 124.5[4] 110.7T
109.9T **Cleveland Dep Con** 121.0 124.5[4]

OHIO—*Continued*

ASR Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292.
Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.
ILS 109.9 I–CLE Apch Brg 055°
110.7 I–CEE[3] Apch Brg 278°
Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld
Cleveland RBn H–SAB 344●/CLE 070° 0.8 NM to fld
VHF/DF Ctc twr
Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]1000–0200Z. [6]For Cuyahoga County Arpt. **VOT:** 110.4.

CLINTON (T) VOR 113.2/ILN
RBn MHW 219/ILN

COLUMBUS, OHIO STATE UNIVERSITY RBn MHW 348/OSU

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§COLUMBUS, PORT COLUMBUS INTL *IFR* 6E **FSS:** COLUMBUS on Fld
816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28R **REIL:** Rnwys 10R, 28R.
Remarks: *(S–180, T–200, TT–400) avbl rnwy 10L–28R.
Due non-vsby some areas of fld, ctc twr. No service Sat 0830–1700.
Tower 121.1 126.2 109.1T **Gnd Con** 121.9
Clrnc Del 121.3
Radar Services: (BCN)
App Con 119.0 126.2 125.4 122.5R 109.5T 3023.5R
Dep Con 120.5 126.2
ASR Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.
Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.
ILS[1] 109.1 1–CBP Apch Brg 096° **LOM:** 271/CB
109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM
RBn BH 391/CMH 070° 1.0 NM to fld
Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM.
VHF/DF Ctc twr.
ASR apchs unavbl til Aug. **VOT:** 111.0

CUYAHOGA RBn MHW 275/CUC **FSS:** CLEVELAND

DAYTON
§JAMES M COX-DAYTON MUNI *IFR* 9N **FSS:** DAYTON on Fld
1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: P-line SE. 1096′ TV twr 10NM S.
Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 125.2
Radar Services: (BCN)
Dayton App Con 118.0 126.5 122.7R 111.6T 110.3T
Dayton Dep Con 125.9 119.9
ILS[1] 110.3 1–DAY Apch Brg 056° **LOM:** 356/DA
Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.
Remarks: **VOT:** 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI **FSS:** FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY **FSS:**FINDLAY
RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO **FSS:** FINDLAY
Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL **FSS:** CLEVELAND

HAMILTON RBn MHW 260/HAO **FSS:** CINCINNATI

HUBBARD RBn MHW 408/HBD **FSS:** YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN **FSS:** YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA **FSS:** FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK

MADEIRA RBn MHW 379/MDE

OHIO—*Continued*

§MANSFIELD MUNI *IFR* 3N **FSS:** MANSFIELD on Fld
1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32
Tower 119.3 122.5R 110.5T **Gnd Con** 121.9
App Con 124.7 122.5R 110.5T 108.8T
ILS 110.5 1–MFD Apch Brg 320° **LOM:** 374/MF
(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.
RBn MHW 374/MF 320° 4.0 NM to fld.
Remarks: LOM is MHW.

MARION RBn MHW 203/MNN **FSS:** MANSFIELD

MIDDLETOWN RBn MHW 239/MWO **FSS:** DAYTON

MONTGOMERY CO. (T) VORW 110./MGY **FSS:** DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW **FSS:** ZANESVILLE

PATTERSON (T) VOR 111.6/FFO
RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD **FSS:** DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY **FSS:** CLEVELAND

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§SPRINGFIELD MUNI *IFR* 5S **FSS:** DAYTON (LC FA 2–4562)
1049 H90/5–23(3) (S–190, T–200, TT–380) BL4 S5 F4, JP4
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245–2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM **FSS:** CLEVELAND

STRONGSVILLE (L) VOR 112.0/STG **FSS:** CLEVELAND

TIPP CITY RBn MHW 212/TPC **FSS:** DAYTON

TIVERTON (L) BVOR 116.5/TVT **FSS:** MANSFIELD

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§TOLEDO EXPRESS *IFR* 9SW **FSS:** FINDLAY (LC 242–4171)
684 H87/7–25(2) (S–107, T–163, TT–287) BL5,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 7
Remarks: First 300′ N end and 1000′E end rnwy 17–35 clsd; usable length 4300′.
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084.
Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I–TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV **FSS:** TOLEDO

WILLOUGHBY
§LOST NATION *IFR* 2 N **FSS:** CLEVELAND (DL)
626 H50/9–27(2) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W. Rnwy 5 threshold displaced 200′ NE. 4800′ avbl lndg rnwy 5, tkof rnwy 23. 5000′ avbl lndg rnwy 23, tkof rnwy 5.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°–089° [2]090°–269° [3]Oper 0230–1430Z.

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§YOUNGSTOWN MUNI *IFR* 10 N **FSS:** YOUNGSTOWN on Fld
1196 H75/14–32(3) (S–116, T–160, TT–270) BL4, 6, 8A, 9 S5 F4 TP1 U2 **RVV:** Rnwy 32

OHIO—*Continued*

Remarks: Rnwy 9–27 rnwy lgts inop.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I–YNG Apch Brg 320° **LOM:** 338/YN
(L) BVOR–DME[1] 109.0/YNG 183° 4.1 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]To be BVORTAC Sep 15.

ZANESVILLE (L) BVORTAC 111.4/ZZV **FSS:** ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS
RBn HW 410/LTS

ARDMORE (L) BVORTAC 116.7/ADM **FSS:** ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO **FSS:** TULSA

CLINTON (L) VOR 111.2/CSM
RBn MHW 320/CSM

DUNCAN (L) BVOR 111.0/DUC **FSS:** ARDMORE

GAGE (H) BVORTAC 115.6/GAG **FSS:** GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR **FSS:** HOBART

KINGFISHER (L) BVORTAC 114.2/IFI **FSS:** OKLAHOMA CITY

§LAWTON MUNI *IFR* 2 S **FSS:** WICHITA FALLS (LC EL5–1323)
1109 H54/17–35(1) (S–50, T–75, TT–135) BL4 S5 F5 JPI U–2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.7R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230–0430Z.

McALESTER (L) BVORTAC 112.0/MLC **FSS:** McALESTER

MUSKOGEE RBn MHW 306/MKO

OKLAHOMA CITY

§WILEY POST *IFR* 7 NW **FSS:** OKLAHOMA CITY on fld
1303 H54/17–35(2) (S–15, T–20, TT–30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200–0400Z.

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§WILL ROGERS WORLD *IFR* 6W **FSS:** OKLAHOMA CITY (LC SU9–7452)
1284 H98/17R–35L(4) (S–100, T–180, TT–350) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3–21 and txwy (C–1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr.
Tower 118.3 126.2R 122.7R 109.9T **Gnd Con** 121.9
ATIS: 109.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684

OKLAHOMA—*Continued*

ILS[1] 109.9 I–OKC Apch Brg 351° **LOM:** 219/OK
Oklahoma City (H) BVORTAC 115.0/OKC 098° 8.1 NM to rnwy 12.
Oklahoma City RBn H–SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM **FSS:** TULSA

OWASSO RBn MHW 317/DW **FSS:** TULSA

PAGE (L) BVOR 113.5/PGO **CS/T:** FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC **FSS:** PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO **FSS:** HOBART

STILLWATER (T) BVOR 108.4/SWO **FSS:** OKLAHOMA CITY (LC FR 2–4935)

TINKER AFB RBn HW 394/TIK

TULAKES RBn MHW 406/TWO **FSS:** OKLAHOMA CITY

§TULSA INTL *IFR* 5NE **FSS:** TULSA on Fld
674 H100/17L–35R(5) (S–50, T–75, TT–135) BL4, 6, 8A, 9, 10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R
Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy. Rnwy 17R–35L: (S–100, T–200, TT–400).
Tower 118.7 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.2
ATIS[3] 114.4
Radar Services: (BCN)
App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7
Tfc Info Ctc App Con 25 mi out on 119.1
ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074
ILS 109.7 I–DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I–TUL[2] Apch Brg 355° **LOM:** 338/TU
(H) VORTAC 114.4/TUL 260° 4.3 NM to rnwy 26
RBn SBH 245/TUL 220° 0.9 NM to fld.
Remarks: [1]500–1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL; unusable for automatic apchs. Both systems not operd simultaneously. [3]Oper 1300–0300Z. **VOT:** 109.0

§TULSA RIVERSIDE *IFR* 5S **FSS:** TULSA
624 H40/18–36(1) (S–50, T–60, TT–) BL4 S5 F4 U2
Remarks: Due non-vsby some areas of fld, ctc twr.
Tower:[1] 118.1 122.7R
Remarks: [1]Oper 1200–0400Z.

WOODRING (T) BVOR 109.0/ODG **FSS:** PONCA CITY

OREGON

ASTORIA (L) BVOR 114.0/AST **FSS:** HOQUIAM

BAKER (L) BVORTAC 115.3/BKE **FSS:** BAKER

CORVALLIS (L) BVOR 108.4/CVO **FSS:** EUGENE

EUGENE

§MAHLON-SWEET FLD *IFR* 7 NW **FSS:** EUGENE on Fld
365 H55/16–34(2) (S–80, T–120, T–190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16
Eugene Tower 118.9 122.5R **Gnd Con** 121.9
Eugene App Con 119.6 122.5R 112.9T 1095T
ILS 109.5 I–EUG Apch Brg 159° **LOM:** 227/EU
Eugene (L) BVORTAC 112.9/EUG on fld

HILLSBORO

PORTLAND-HILLSBORO *IFR* 2NE **FSS:** PORTLAND (DL)
204 H40/2–20(2) BL4 S5 DT2

OREGON—*Continued*

Tower[1] 119.3 122.6R **Gnd Con** 121.7 122.6R

VFR ADV: Ctc Portland App Con

Remarks: [1]Oper 0600–2200 lcl time.

JOHN DAY (H) BVOR 115.6/JDA **FSS:** BAKER

KLAMATH FALLS

§KINGSLEY FLD *IFR* 4 SE **FSS:** KLAMATH FALLS on Fld

4092 H103/14–32(3) (S–100, T–200, TT–380) BL4, 6,8A′, 9′ S5 F4, JP1 U2 DT2

Remarks: [1]Below FAA standards. 1000′ overrun N end, 750′ overrun S end rnwy 14–32.

Kingsley Tower 118.5 126.2 122.5R 269T **Gnd Con** 121.9

Radar Services: (BCN)

Klamath Falls App Con 119.4 126.2 122.5R

Klamath Falls Dep Con 124.1

Tfc Info Ctc App Con

ILS[1] 109.5 I–LMT Apch Brg 319° BC unusable **LMM:**269/MT

Klamath Falls (L) BVORTAC 115.9/LMT on fld

Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.

Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV **FSS:** KLAMATH FALLS

§MEDFORD MUNI *IFR* 2 N **FSS:** MEDFORD on Fld

1330 H54/14–32(2) (S–80, T–120, TT–180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVV:** Rnwy 14

Remarks: Ngt fueling delay and surcharge 1800–0730 lcl time.

Tower 118.3 122.5R **Gnd Con** 121.9

App Con 119.8 110.3T 113.6T

ILS[1] 110.3 I–MFR Apch Brg 141° **LOM:** 394/MF

(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.

RBn SBH 263/MFR 161° 2.1NM to fld.

VHF/DF Ctc twr or FSS.

Remarks: [1]ILS not certified for automatic apchs. [2]VHF/DF coverage 40 NM at MEA excp 360–015°, 9000′; 015–030°, 10,000′; 030–057°, 11,000′; 120–210°, 13,500′; 315–350°, 8000′; 350–360°, 8500′; 057–075°, 30 NM at 11,000′; 075–120°, 30 NM at 13,500′; 210–225°, 30 NM at 12,000′; 225–250°, 30 NM at 10,500′.

NEWBERG (H) BVORTAC 117.4/UBG **FSS:** PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP **FSS:** EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH **FSS:** NORTH BEND

RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO **FSS:** BOISE

§PENDLETON MUNI *IFR* 2 NW **FSS:** PENDLETON on Fld

1493 H63/7L–25R(4) (S–70, T–100, TT–170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25

Remarks: Rnwy 25L threshold displaced 821′W. 2029′ avbl lndg rnwy 25L, 7R–25L dalgt operns only lgt planes.

Tower 118.7 122.5R **Gnd Con** 121.9

App Con 118.7 114.7T 341T

ILS 110.3 I–PDT Apch Brg 250° **LOM:** 236/PD

(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.

RBn SABH 341●/PDT 259° 1.7 NM to fld

§PORTLAND INTL *IFR* 4 NE **FSS:** PORTLAND on Fld

26 H88/10R–28L(3) (S–100, T–200, TT–400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R

Tower 118.7 126.2 122.7R **Gnd Con** 121.9

Clrnc Del 119.0

Radar Services: (BCN)

App Con 118.1[2] 126.2 122.7R 119.8[3] 109.9T

Dep Con 124.9

Tfc Info Ctc App Con

PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226

ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726

Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826

ILS 109.9 I–PDX Apch Brg 098° BC restricted **LMM:** 201/DX

111.3 I–IAP Apch Brg 278° **LOM:** 383/IA

(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.

BRn SABH 332●/PDX 155° 2.9 NM to fld.

VHF/DF Ctc twr.

Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070–289°. [3]290–069°. **VOT:** 111.0.

§PORTLAND-TROUTDALE *IFR* Adj NW **FSS:** PORTLAND (DL)

36 H46/7–25(1) (Max 20) BL 4 S5 F4 U2 DT2

RVV: Rnwy 7

Remarks: Rnwy 7 threshold displaced 400′ E. 4241′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 500′W. 4141′ avbl lndg rnwy 25.

Troutdale Tower[3] 120.5 122.5R **Gnd Con** 121.7

Radar Services:

Portland App Con 118.1[1] 119.8[2]

Portland Dep Con 124.9

Remarks: [1]070–289° [2]290–069°. [3]Oper 1500–0700Z.

REDMOND (L) BVORTAC 117.6/RDM **FSS:** REDMOND

RBn H–SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO **FSS:** BAKER

ROSEBURG (L) BVOR 108.2/RBG **FSS:** EUGENE

§SALEM-MCNARY FLD *IFR* 1 SE **FSS:** PORTLAND (DL)

207 H58/13–31(2) (S–50, T–75, TT–110) BL4, 6 S5 F4 U1 DT2 **RVV:** Rnwy 31

Remarks: Rnwy 16–34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins.

ILS[1] 110.3 I–SLE Apch Brg 309° **LOM:** 266/SL

Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY **FSS:** PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS **FSS:** THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON *IFR* 3 NE **FSS:** ALLENTOWN on Fld

388 H62/6–24(4) (S–55, T–76, TT–125) BL4,6,8A,9 S5 F4 JP1 U2 DT2 **RVR:** Rnwy 6

Remarks: 5210′ avbl lndg rnwy 24. Rnwy 14–32 open for ngt opern 2415′ btn threshold lgts plus 175′ of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.

Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9

Clrnc Del 121.9

Allentown App Con 118.2 122.5R 117.5T 110.7T 321T

ILS 110.7 I–ABE Apch Brg 061° **LOM:** 400/AB

Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld

Allentown Rng SBMAZ[1] 321/AE 195° 2.5 NM to fld.

Remarks: [1]Reliable reception distance 40 NM.

ALTOONA (T) BVOR 108.8/AOO **FSS:** ALTOONA

AMBLER RBn MHW 275/ING **FSS:** PHILADELPHIA

Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD **FSS:** BRADFORD

RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP **FSS:** PITTSBURGH

CARROLLTOWN (L) BVORTAC 110.6/CLN **FSS:** ALTOONA

CLARION (L) BVOR 112.9/CIP **FSS:** DU BOIS

COATESVILLE RBn MHW 262/CVE **FSS:** PHILADELPHIA

CREEK RBn MHW 219/CRK **FSS:** PITTSBURGH

CRYSTAL LAKE RBn MHW 392/CYE **FSS:** WILKES–BARRE

DU BOIS RBn BH 356/DUJ **FSS:** DU BOIS

PENNSYLVANIA—*Continued*

EAST TEXAS (L) BVORTAC 110.2/ETX **FSS:** DU BOIS

ELLWOOD CITY (H) BVORTAC 115.8/EWC **FSS:** PITTSBURGH

ERIE
§PORT ERIE ***IFR*** 5 SW .. **FSS:** ERIE on Fld
732 H50/6-24(3) (S-75, T-115, TT-) BL4, 6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Erie Tower: 118.1 122.5R **Erie Gnd Con** 121.9
Erie App Con 119.0 118.4[1] 122.5R
ILS 110.3 I-ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

FRANKLIN (L) BVOR 109.6/FKL **FSS:** YOUNGSTOWN
RBn MHW 233/FKL

§HARRISBURG-YORK STATE ***IFR*** 3 S **FSS:** HARRISBURG on Fld
347 H50/8-26(3) (S-65, T-105, TT-185) BL4, 6, 8A, 9 S5
F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26. Fence SE. Chimney SSW.
Harrisburg Tower 119.5 126.2 122.5R 109.1T
Gnd Con 121.9
Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447.
Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I-HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMARZ[1] 338/HR 118° 0.9 NM to fld.
Remarks: [1]Reliable reception distance 40 NM.

HAZELTON (T) BVOR 109.4/HZL **FSS:** WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200-2400Z by City.

IMPERIAL (L) BVORTAC 109.4/IRL **FSS:** PITTSBURGH

INDIANA RBn MHW 242/INP **FSS:** ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/HD **FSS:** MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST **FSS:** ALTOONA

KEATING (L) BVOR 114.7/ETG **FSS:** PHILIPSBURG

§LANCASTER ***IFR*** 5N **FSS:** HARRISBURG (LC 392-0881)
403 H50/8-26(2) (S-77, T-107, TT-) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
Rbn MHW 326/LRP
Remarks: [1]Oper 1200-0400Z.

LATROBE (T) VORW 108.2/LBE **FSS:** PITTSBURGH

MCKEESPORT RBn MHW 287/MKP **FSS:** PITTSBURGH

MILTON (L) BVORTAC 109.2/MIP **FSS:** WILLIAMSPORT

PHILADELPHIA
§ NORTH PHILADEPHIA ***IFR*** 10 NE **FSS:** PHILADELPHIA on Fld
120 H50/6-24(2) (S-120, T-200, TT-) BL4, S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]270-089° [2]090-269°

§PHILADELPHIA INTL ***IFR*** 5 SW **FSS:** PHILADELPHIA (DL)
14 H95/9-27 (3) (S-120, T-200, TT-400) BL4, 6, 8A, 9 S5
F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: Fence E, NE. Constrn vcnty rnwy 27.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
PAR[3] Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 214
ILS 109.3 I-PHL Apch Brg 085°. **LOM:** 237/PH
VHF/DF Ctc twr.
Remarks: [1]270-089°. [2]090-269°. [3]Radar monitoring of instrument apchs only at pilots req. **VOT:** 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB **FSS:** PHILIPSBURG
RBn MHW 236/PSB

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PITTSBURGH
§ALLEGHENY COUNTY ***IFR*** 4 S **FSS:** PITTSBURGH on Fld
1252 H55/9-27(3) (S-70, T-120, TT-210) BL6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30
Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7
Radar Services: (BCN)
Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]
Pittsburgh Dep Con 125.9
ILS 109.1 I-AGC Apch Brg 275° BC unusable
(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld
RBn H-SAB 254●/AGC 082° 2.0 NM to fld
Remarks: [1]270-089° [2]090-269°

§GREATER PITTSBURGH ***IFR*** 12 NW **FSS:** PITTSBURGH (DL)
1203 H105/10L-28R(4) (S-120, T-200, TT-400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32
Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. US Customs lndg rts arpt.
Pittsburgh Tower 119.1 126.2 122.7R 110.3T
‡Clrnc Del 121.3 **Gnd Con** 121.9
Radar Services: (BCN)
Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]
Pittsburgh Dep Con 125.9
Tfc Info Ctc Radar App Con on 124.15 when approaching from NW & NE, and on 118.7 from SE & SW.
PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1368
ASR Rnwys 5,14,23,28R,32 Ceil 500 Vsby 1 mi Min Alt 1703
Rnwy 10L, 10R, 28L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° BC unusable **LOM:** 323/GP
111.7 I-LXB Apch Brg 097° BC unusable.
VHF/DF Ctc twr.
Remarks: [1]270-089° [2]090-269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POTTSTOWN (L) BVORTAC 116.5/PTW **FSS:** PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING
§GENERAL SPAATZ FIELD ***IFR*** 2NW **FSS:** HARRISBURG (LC 376-3045)
343 H51/18-36(3) (S-30, T-45, TT-175) BL4, 6, 7, 12 S5
F4, JP4 U2 DT2
Remarks: Rgt tfc rnwys 5, 13, and 36.
Reading Tower 119.9 126.2 122.5R 109.5T
Gnd Con 121.9
Reading App Con 119.9 126.2 122.5R 109.5T

PENNSYLVANIA—*Continued*

ILS 109.5 I-RDG Apch Brg 001° BC unusable **LOM:** 269/RD
VHF/DF Ctc twr.

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

TOBYHANNA RBn MHW 410/TSD

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** PHILADELPHIA

§WILKES-BARRE-SCRANTON ***IFR*** 9 NE **FSS:** WILKES-BARRE on Fld
956 H52/4–22 (3) (S–100, T–140, TT–) BL4–6,8A,9 F5, JP4 DT2 **RVV:** Rnwy 4
Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.
FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.
Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Wilkes-Barre App Con 124.5 122.5R 109.9T
Wilkes-Barre Dep Con 126.3
ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956
Rnwy 10,22 Ceil 900 Vsby 1 mi Min Alt 1856
ILS[1] 109.9 I–AVP Apch Brg 043° BC unusable **LOM:** 257/AV
Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

§WILLIAMSPORT-LYCOMING CO ***IFR*** 4 E **FSS:** WILLIAMSPORT on Fld
528 H50/9–27 (3) (S–40, T–60, TT–) BL4,6,8A,9 S5 F4, JP1 DT2
Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15–33 open to acft 12,500 lbs and under. Rnwy 12–30 (Max–200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW.
Williamsport Tower 119.1 122.5R
Williampsort Gnd Con 121.9
Williampsort App Con 124.9 122.5R
ILS 110.1 I–IPT Apch Brg 266° BC unusable **LMM:** 281/PT
Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO

PROVIDENCE
§GREEN ***IFR*** 6 S **FSS:** PROVIDENCE on Fld
56 H54/5R–23L(4) (S–94.5, T–143, TT) BL5,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 5R
Remarks: Fee. No mult engine lndgs 5L, no tkofs 23R.
Providence Tower 120.7 122.5R 109.3T 368T
Gnd Con 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.3 I–PVD Apch Brg 046° BC unusable **LOM:** 368/PV
Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

SOUTH CAROLINA—*Continued*

ANDERSON (L) BVORTAC 108.6/AND **FSS:** ANDERSON

§CHARLESTON AFB/MUNI ***IFR*** 9 NW **FSS:** CHARLESTON on Fld
45 H90/15–33 (2) (S–100, T–140, TT–250) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15
Tower 121.0 122.5R 126.2 113.5T 109.7T **Gnd Con** 121.9
Clrnc Del 121.7
Radar Services:
App Con 119.3 118.5 113.5T 109.7T
Dep Con 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.
PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445
Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245
Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445
ILS[1] 109.7 I–CHS Apch Brg 149° BC unusable **LOM:** 329/CH
(H) BVORTAC 113.5/CHS on fld.
RBn H–SAB 329●/CH
VHF/DF Ctc FSS
Remarks: LOM is H–SAB. **VOT:** 111.0.

CHESTERFIELD (L) BVOR 108.2/CTF **FSS:** FLORENCE

COLUMBIA
§COLUMBIA METROPOLITAN ***IFR*** 5SW
FSS: FLORENCE (LC 256–1506)
236 H75/10–28(2) (S–45, T–130, TT–270) BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10
Remarks: Rnwy 5–23 (S–45, T–170, TT–320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.
Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
App Con 118.2 122.5R 114.7T 110.3T 227T
ILS 110.3 I–CAE Apch Brg 107° BC unusable **LOM:** 356/CA
(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.

§OWENS FIELD 1SE **FSS:** FLORENCE (LC 256–1506)
203 H36/15–33(2) (S–30) L4 S5 F4 U1
Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.
Tower[1] 126.2 122.5R
Columbia App Con 118.2 122.5R 110.3T 227T
Remarks: [1]AAS—Oper weekdays 1230–1630Z and 1745–2115Z. Sats 1230–1600Z.

CONWAY RBn HW 269/MTL

FLORENCE (H) BVORTAC 115.2/FLO **FSS:** FLORENCE

FORT MILL (L) BVOR 112.4/FML **FSS:** HICKORY

GREENVILLE
§GREENVILLE MUNI DOWNTOWN ***IFR*** 2 E **FSS:** GREER
1047 H54/18–36 (3) (S–21, T–30, TT–60) BL4,6 S5 F4, JP1 U2
Remarks: Rgt tfc rnwys 18, 27, 23.
Tower[2] 119.9 126.2 122.5R 109.7T 391T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.0 124.3 122.5R 119.4 109.7T
Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.
ILS[1] 109.7 I–GRL Apch Brg 002° BC unusable **LOM:** 272/GR
Remarks: [1]Glide slope unusable below 1347′ MSL [2]Oper 1200–0400Z.

GREENWOOD (L) BVORTAC 114.9/GRD **FSS:** ANDERSON

GREER
§GREENVILLE-SPARTANSBURG ***IFR*** 3 S **FSS:** GREER on Fld
972 H76/3–21 (2) (S–120) BL6,8A,9, 14,15 S5 F5, JP5 U2 **RVV:** Rnwy 3
Remarks: Fee commercial only.

SOUTH CAROLINA—*Continued*

Greer Tower 120.1 126.2 122.7R 115.7T 109.3T 209T
Gnd Con 121.8
Radar Services: (BCN)
Greenville App Con 118.0 126.2 124.3 122.5R 119.4 109.7T
Greenville Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.
ILS 109.3 I–GSP Apch Brg 033° **LOM:** 287/GS
VHF/DF Ctc FSS.
Remarks: [1]Oper 1200–0400Z.

MYRTLE BEACH (L) BVOR 117.6/CRE FSS: FLORENCE

SHAW AFB (L) VOR 109.2/SSC
RBn HW 375/SW

§SPARTANSBURG DOWNTOWN MEMORIAL *IFR* 2SW
FSS: GREER (LC 585–5470)
816 H52/4–22(3) (S–56) BL4, 6 S5 F5, JP1, JP5
Tower[1] 118.3 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Greenville App Con 124.3
Greenville Dep Con 118.8
(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H–SAB 248●/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100–0300Z.

VANCE (L) BVOR 110.4/VAN FSS: CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR FSS: ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR FSS: PIERRE

ELLSWORTH (L) BVOR 110.8/RCA

HURON
§HOWES MUNI *IFR* 1NW FSS: HURON on Fld
1287 H51/12–30(2) (S–50, T–75, TT–132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17–35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 1–HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM FSS: DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE FSS: HURON
Remarks: VFR use only.

PHILIP (L) BVOR 108.4/PHP FSS: PIERRE

PIERRE (L) BVORTAC 112.5/PIR FSS: PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

§RAPID CITY MUNI *IFR* 8SE FSS: RAPID CITY on fld
3181 H62/14–32(2) (S–63, T–85, TT–140) BL6,11 S5 F4 U2
JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld.
RBn SABH 254/RAP 102X 1.7 NM to fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

SOUTH DAKOTA—*Continued*

SIOUX FALLS
§JOE FOSS FIELD *IFR* 2NW FSS: HURON (DL)
1428 H90/3–21(3) (S–85, T–120, TT–220) BL4,6,8A,9,11 S5
F5 JP1 U2 **RVV:** Rnwys 3, 21 **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9–27 clsd acft over 30,000 lbs. First 320′ rnwy 27 unusable tkof. Usable length 5380′.
Foss Tower 118.3 122.5R **Gnd Con** 121.9
Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 1–FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

WATERTOWN (L) BVORTAC 116.6/ATY FSS: WATERTOWN

WINNER (L) BVOR 112.8/ISD FSS: PIERRE

YANKTON (L) BVOR 111.4/YKN FSS: HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW FSS: TRI-CITY on Fld
1519 H66/4–22(2) (S–95, T–125, TT–215) BL6,8A,9 S5
F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 125.7 128.4 126.2
ILS[1] 109.9 I–TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 700 Vsby ¾ mi Min Alt 2219
Remarks: [1]Glide slope unusable below 2219′ MSL. Lclzr unusable above 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME FSS: MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E FSS: CROSSVILLE (LC 267–5343)
682 H62/2–20(2) (S–90, T–120, TT–) BL4,6,8A,9,10
S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanoga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I–CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn HW 341/CQN 196° 7.7 NM to fld.
Remarks: [1]016–196° [2]197–015° Glide slope unusable below 885′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV FSS: NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV FSS: CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR FSS: DYERSBURG

GRAHAM (L) BVOR 111.6/GHM FSS: NASHVILLE

HARDEE RBn MHW 281/MKL
Remarks: Privately owned.

HIGHWAY (L) BVOR 108.4/HIY FSS: CROSSVILLE

TENNESSEE—*Continued*

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE

§McGHEE-TYSON ***IFR*** 1IS **FSS:** KNOXVILLE on Fld
989 H90/4L–22R(3) (S–84, T–90, TT–200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I-TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H-SAB[1] 281●/TYS 200X 2.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]AB 1000–0300Z. **VOT:** 112.0.

§MEMPHIS METROPOLITAN ***IFR*** 3S **FSS:** MEMPHIS on Fld
331 H89/9–27(4) (S–105, T–150, TT–240) BL4,6,8A,9,10,15 S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwys 3–21 & 14–32 (S–100). Rnwy 17–35. (S–110, T–150, TT–270). 3816' avbl lndg & tkoff both directions rnwy 14–32. 1088' (1340' MSL) twr 9 NM NNE. 1078' (1333' MSL) twr 10 NM NE. 1077' (1349' MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 126.2 122.5R 118.3 115.5T 110.5T 109.5T
Gnd Con 121.9
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I-MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I-TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn SBH 371/TS 354° 4.7 NM to fld
VHF/DF Ctc FSS
Remarks: [1]087–267° [2]268–086° [3]Glide slope unusable below 400' MSL. [4]LOM is Brooks MHW. [5]LOM is SBH. [6]Glide slope unusable below 350' MSL. **VOT:** 111.0

§NASHVILLE METROPOLITAN ***IFR*** 5SE **FSS:** NASHVILLE on Fld
597 H80/13–31(3) (S–76, T–130, TT–220) BL4,6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 2L
Remarks: Rnwy 2R–20L–240' overrun N end; 1185' S end; rnwy 2L–20R–1065' overrun S end; rnwy 13–31–1000' overrun SE and NW end. 1368.5' (2049' MSL) twr 8.5 NM W. 1179' (2049' MSL) 9 NM NNW.
Berry Tower 126.2 122.5R 119.1 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I-BNA Apch Brg 016° **LOM:**304/BN
Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.
Nashville RBn H-SAB[2] 304●/BN 016° 5.0 NM to rnwy 2L.
VHF/DF Ctc twr.
Remarks: [1]Main 1200' til 2 mi from end of rnwy on final to rnwy 20R. LOM is H-SAB. [2]AB 0500–2200. **VOT:** 112.0.

TENNESSEE—*Continued*

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 275/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT

TEXAS

§ABILENE MUNI ***IFR*** 3SE **FSS:** ABILENE on Fld
1778 H60/17–35(2) (S–70, T–89, TT–145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35
Remarks: NW–SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmit 122.5 and receive 124.1 mc 20 mi out.
Tower[1] 120.1 126.2 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0
Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB
(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.
Remarks: [1]Opers 0600–2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

§AMARILLO AFB/MUNI ***IFR*** 8E **FSS:** AMARILLO on Fld
3605 H135/3–21(2) (S–65, T–330, TT–470) BL6,8A,9,10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21
Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100' MSL. Overhead tfc ptn 5400' MSL. Rnwy 13–31 lmtd to 33,000 lbs GWT.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T
Dep Con 119.5
Tfc Info Ctc App Con 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005.
Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105
ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM
(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.
RBn SABH 251●/AMA 109° 1.3 NM to fld.
Remarks: [1]Glide slope unusable below 3905' MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN

§MUELLER MUNI ***IFR*** 2NE **FSS:** AUSTIN on Fld
632 H73/12R–30L(5) (S–74, T–100, TT–159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVV:** Rnwy 30L
Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844' SE. 6400' avbl lndg rnwy 12R. Rnwy 16R threshold displaced 589' S. 4406' avbl lndg rnwy 16R. 1137' (2049' MSL) twr 5 NM W. 1199' (2049' MSL) twr 7 NM W.
Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Austin App Con 124.9 118.8 122.7R 112.5T
Austin Dep Con 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
Tfc Info Contact App Con 25 mi out on 118.8.
ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU
Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.
Austin RBn MHW 353/AU 305° 4.8 NM to fld.
Remarks: LOM is MHW.

TEXAS—*Continued*

BEAUMONT-PORT ARTHUR
§JEFFERSON CO *IFR* 9SE **FSS:** BEAUMONT on Fld
16 H57/11–29(3) (S–65, T–91, TT–170) BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16
Remarks: (S–83, T–118, TT–212) avbl rnwy 16–34.
Tower 119.5 122.5R **Gnd Con** 121.9
Beaumont App Con 121.3 122.5R 114.9T
ILS 109.5 I–BPT Apch Brg 114° **LOM:** [2]257/BP
Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.
RBn[1] **MHW** 368/BEM
Remarks: [1]VFR use only. [2]LOM unusable beyond 8 NM.

BEEVILLE **FSS:** ALICE
§CHASE (NAAS) FLD 45E
186 H80/13R–31L(3) BL4,6,7
Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.
Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO

BERGSTROM (L) VORW 109.8/BSM
RBn HW 293/BSM

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326 /BGS

BORGER (L) BVOR 108.6/BGD

BRAZOS SANTIAGO RBn HW 314/PIL **FSS:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE
§RIO GRANDE VALLEY INTL *IFR* 4E AOE **FSS:** BROWNSVILLE on Fld 22 H74/13R–31(5) (S–26, T–50, TT–87) BL4,6,7 S5 F5, JP1 JP4 U2
Remarks: Brush apch 31L. Trees apch rnwy 35R. Rnwy 17R–35L: (S–35, T–56, TT–108). Rnwys 8–26 and 4–22 do not meet air carrier standards for day/ngt operns. No lgts rnwys 13R–31L and 8–26.
Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I–BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 111.4/ARO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION
§EASTERWOOD FIELD *IFR* 2SW **FSS:** COLLEGE STATION on Fld
319 H51/10–28(3) (S–30, T–40, TT–) BL4 S3 F4 JP1
Remarks: Services offered dalgt hrs only. Due non-vsby some areas of fld, ctc twr.
Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9
College Station App Con[2] 118.5 126.2
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: [1]Oper 1200–0400Z. [2]App Con from Houston ARTCC 0400–1200Z.

CONNALLY RBn MHW 400/CNW

§CORPUS CHRISTI INTL *IFR* 5W **FSS:** ALICE (LC TU 4–5712)
43 H56/13–31(2) (S–96, T–108, TT–152) BL4,6,8A,9 S5 F4, TP–1 JP4 U2 **RVV:** Rnwy 13
Remarks: Amber flashing lgt for rgt ptn. US Customs–lndg rts arpt 0800–1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I–CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS
§ADDISON *IFR* 9N **FSS:** DALLAS (LC FL2–8491)
643 H52/15–33(2) (S–50, T–70, TT–120) BL4 S5 F5 JP1 U2
REIL: Rnwy 15
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°–307° [2]308°–126°.

§DALLAS LOVE FIELD *IFR* 5NW **FSS:** DALLAS on Fld
485 H88/13R–31L(3) (S–100, T–150, TT–350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R
RVR: Rnwy 13L
Remarks: US Customs lndg rgts arpt 0030–1430 Mon-Fri, 0030–1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[3] 125.2 125.8[2] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I–DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°–307° [3]308°–126° [4]Glide slope unusable below 677′ MSL due roughness. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

§RED BIRD *IFR* 6SW **FSS:** DALLAS (LC FL2–8491)
660 H44/13–31(2) (S–35, T–60, TT–110) BL4 S5 F4, JP1 U2
Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8[1] 119.8[2] 125.2 122.5R 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°–307° [2]308°–126° [3]Oper 1200–0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

TEXAS—*Continued*

DYESS (L) VOR 109.2/DYS
RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

§EL PASO INTL *IFR* 4NE (AOE) **FSS:** EL PASO on Fld
3956 H120/4-22(3) (S-95, T-156, TT-280) BL4,5,6,8A,9,11 S5 F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26
Remarks: Rnwy 4 threshold displaced 1000′ NE. 11,000′ avbl lndg rnwy 4. Rnwy 17 threshold displaced 395′ S. 6606′ avbl lndg rnwy 17.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
Dep Con 119.1
ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I-ELP Apch Brg 218° **LOM:** 266/EL
(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.
RBn H-SAB 242●/ELP 258° 3.2 NM to fld.
Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH
§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE **FSS:** FORT WORTH (DL)
568 H90/17-35(2) (S-83, T-120, TT-210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13
Remarks:1074′ (1679′ MSL) twr 10.5 NM WSW.
Southwest Tower 120.5 126.2 122.7R **Gnd Con** 121.8
Radar Services:
Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T
Fort Worth Dep Con 123.9 122.7R
Tfc Info Ctc App Con 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I-GSW Apch Brg 129° **LOM:** 219/GS
Greater Southwest (L) BVORTAC 110.6/GSW at fld.
VHF/DF[1] Ctc twr.
Remarks: [1]VHF/DF inop til Oct 27. **VOT:** 111.8.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld
692 H52/17-35(3) (S-60, T-80, TT-) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17
Remarks: P-line SE.
Tower[1] 118.3 126.2 122.7R **Gnd Con** 121.9
Radar Services:
Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T
Fort Worth Dep Con 123.9 122.7R
ILS 109.9 I-FTW Apch Brg 174° **LOM:** 365/FT
Fort Worth RBn H-SAB[2] 365●/FT 174° 3.5 NM to rnwy 17
Remarks: [1]Oper 1200-0400Z. Wea bcsts discontd 2400-0500 excp forecast. LOM is H-SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON
RBn HH-SAB[1] **206●/GLS**
Remarks: [1]Ctld by Houston FSS.

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK

GREENVILLE
§MAJORS FIELD *IFR* 4SE **FSS:** DALLAS
544 H80/17-35(2) S-26, T-50, TT-) BL4 S5 F4
Remarks: Rgt tfc rnwy 17.

TEXAS—*Continued*

Tower[1] 121.3 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 1330-2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE
HOOD (L) VORW 111.8/HLR
RBn MHW 347/HLR

HOUSTON
§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld
48 H76/3-21(2) (S-75, T-107, TT-185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12
Remarks: US Customs lndg rgts arpt 0800-1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12-30, 3-21 not usable for lndgs or taxg acft; usable rnway pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del: 127.6
ATIS 119.7
Radar Services:
App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T
Dep Con 120.2 126.2
Tfc Info Ctc App Con 25 mi out on 119.1 or 118.1
ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448
Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548
ILS 109.9 1-HOU Apch Brg 036° **LOM:** 251/HO
Houston (H) BVORTAC 115.9/HOU on fld.
VHF/DF Ctc twr.
Remarks: [1]218°-008° [2]009°-217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/IDU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN
1515 H63/17-35(1) L4,11 F4 U1 **REIL:** Rnwy 35
Tower[1] 126.2
Radar Services:
Austin App Con 124.9 118.8 122.7R
Austin Dep Con 120.8
RBn MH 393/JCY 346° 2 NM to fld.
Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (H) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

KELLY (L) VORW 113.8/SKF
RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI

§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2-3612)
524 H49/15-33(1) (S-25, T-37, TT-) BL4 S3 F4 U1
Remarks: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T.
VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.
(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.

LAUGHLIN (L) VOR 114.4/DLF
RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FSS:** SAN ANTONIO

LEONA (L) BVORTAC 110.8/LOA **FSS:** COLLEGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

TEXAS—*Continued*

LONGVIEW

§GREGG COUNTY MUNI ***IFR*** 6SE **FSS:** GREGG COUNTY on Fld
365 H61/17–35(3) (S–75, T–100, TT–) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13
Tower 118.9 122.5R **Gnd Con** 121.9
ILS 109.5 I–GGG Apch Brg 127° **LOM:** 410/GG
Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

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§LUBBOCK MUNI ***IFR*** 4NE **FSS:** LUBBOCK on Fld
3269 H85/17R–35L(5) (S–90, T–150, TT–250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R
Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl lndg rnwy 35L, 8500′ avbl lndg rnwy 17R. Clsd to tactical mil jet acft.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 125.8 112.9T 109.5T 110.8T
Dep Con 119.3
ASR [1]Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Alt 3669
ILS 109.5 I–LBB Apch Brg 169° **LOM:** 219/LB
(L)BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12
Remarks: [1]Oper 1200–0400Z.

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI

McALLEN

§MILLER INTL ***IFR*** 2S (AOE) **FSS:** McALLEN on Fld
106 H49/13–31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13
Remarks: Rnwy 31 threshold displaced 542′ NE.
McAllen Tower [1]118.9 122.5R **Gnd Con** 121.9
McAllen App Con 118.9
Brownsville App Con[2] 119.5 126.2 118.1
McAllen (L) BVOR 109.8/MFE on fld
VHF/DF Ctc FSS
Remarks: [1]Oper 1200–0400Z. [2]Oper 0400–1200Z.

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§MIDLAND AIR TERMINAL ***IFR*** 8SW **FSS:** MIDLAND on Fld
2870 H83/10–28(4) (S–100, T–128, TT–280) BL4,6,8A,9 S5 F5,JP2 U2 **RVV:** Rnwy 10
Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl lndg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
App Con 121.1 122.5R 114.8T 110.3T
ILS 110.3 I–MAF Apch Brg 103° **LOM:** 344/MA
VHF/DF Ctc FSS
(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.

MINERAL WELLS (H) BVORTAC 117.7/MWL **FSS:** MINERAL WELLS
RBn BMH 284/MWL

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CORPUS (L) VORW 109.2/NGP
RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PERRYTON RBn MHW 266/PYX **FSS:** GAGE
Remarks: VFR use only.

PLAINVIEW

§HALE COUNTY ***IFR*** 1S **FSS:** AMARILLO (LC CA 3–2148)
3372 H52/4–22(2) (S–30, T–40, TT) BL4 S5 F4 U2
Remarks: Hangar NE.
Plainview Tower[1] 118.9 122.5R **Gnd Con** 121.7
Lubbock App Con 118.1 126.2 112.9T
Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.
Remarks: [1]Oper 1200–0400Z.

QUITMAN (L) BVOR 114.0/UIM **FSS:** TYLER

RANDOLPH RBn HW 359/RND

ROCKSPRINGS (L) BVORTAC 111.2/RSG **FSS:** SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI **FSS:** BEAUMONT

SALT FLAT (L) BVORTAC 113.0/SFL **FSS:** EL PASO

SAN ANGELO

§MATHIS FIELD ***IFR*** 7SW **FSS:** SAN ANGELO on Fld
1915 H59/3–21(3) (S–35, T–56, TT–) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3
Remarks: Trees E. Rnwy 9–27 clsd to acft over 25,000 lbs GWT.
Tower 118.3 122.5R **Gnd Con** 121.9
San Angelo App Con 119.2 118.3 122.5R 115.1T 109.7T
ILS 109.7 I–SJT Apch Brg 033° **LOM:** 356/SJ
San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

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§SAN ANTONIO INTL ***IFR*** 7N **FSS:** SAN ANTONIO on Fld
808 H85/12–30(3) (S–150, T–225, TT–300) BL4,6,8A,9 S5 F4, JP1 U2 **RVR:** Rnwy 3, 12
Remarks: US customs lndg rts arpt 1000–2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′.
Tower 118.9 122.5R **Gnd Con** 121.9
Clrnc Del 127.3
Radar Services:
App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 1208
ILS 110.9 I–ANT Apch Brg 123° BC unusable **LOM:** 305/AN
109.7 I–SAT Apch Brg 032° **LOM:** 219/SA
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
VHF/DF Ctc twr.
Remarks: VOT: 110.4.

SAN ANTONIO

§STINSON MUNI ***IFR*** 5S **FSS:** SAN ANTONIO (LC TA 6–9575)
577 H48/9–27(3) (S–40, T–75, TT–) BL5 S5 F4
Remarks: Trees all apchs. Tfc 800′ above terrain 1367′ MSL. Rnwy 14 threshold displaced 600′ SE; rnwy 32–400′ NW.
Tower[1] 119.5 122.7R **Gnd Con** 121.7
Radar Services:
San Antonio App Con 120.3 134.1 126.5 126.2R 122.7R
San Antonio Dep Con 123.9
Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld
Remarks: [1]Oper 1300–0500Z.

SEGUIN RBn HW 371/UCT
Remarks: VFR only. Opers daylight hours Mon-Fri.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR **FSS:** DALLAS

TANK RBn BH 388/DDA **FSS:** DALLAS

TEMPLE (L) BVOR 110.4/TPL **FSS:** WACO

TEXICO (H) BVORTAC 112.2/TXO **FSS:** TUCUMCARI

TRADEWIND RBn MHW 338/AM **FSS:** AMARILLO

TEXAS—*Continued*

TYLER
§POUNDS FIELD *IFR* 4W **FSS:** TYLER on Fld
544 H52/13–31(3) (S–40, T–60, TT–100) BL5,6,8A,9 S5 F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl lndg rnwy 17.
Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I–TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT **FSS:** PALACIOS (512) 445–1281

§WACO MUNI *IFR* 5NW **FSS:** WACO on Fld
515 H57/18–36(3) (S–26, T–38, TT–)* BL4,6,8A,9 S5 F5 U2 **RVV:** Rnwy 18
Remarks: *Rnwy 14–32 (S–57, T–68, TT–104) Rnwy 5 threshold displaced 453′ E. Usable length rnwy 23–5500′; rnwy 5–5049′.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 115.3T
Dep Con 125.4
ILS 109.7 I–ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS
§SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5N
FSS: WICHITA FALLS on Fld
1015 H131/15–33(2) (S–65, T–300, TT–530) BL4,6,8A,9,10 S5 F4, JP1 JP5 U2 **VASI:** Rnwy 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700′ rectangular tfc ptn 2200′ MSL. Rgt tfc rnwys 17 & 33. Rnwy 17–35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Wichita Falls App Con 118.2 122.5R 109.7T
Wichita Falls Dep Con 118.2
ILS 109.7 I–SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.8 NM to rnwy 33.
VHF/DF Ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK **FSS:** WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL **FSS:** SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE **FSS:** BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC **FSS:** CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA **FSS:** SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG

HANKSVILLE (H) BVORTAC 115.9/HVE **FSS:** CEDAR CITY

LA SAL (L) BVORTAC 112.9/LXL **FSS:** GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU **FSS:** SALT LAKE CITY

MILFORD (H) BVORTAC 112.1/MLF **FSS:** CEDAR CITY

MYTON (H) BVORTAC 117.9/MTU **FSS:** GRAND JUNCTION

§OGDEN MUNI *IFR* 3SW **FSS:** SALT LAKE CITY (LC 394–8712)
4455 H73/3–21(3) (S–100, T–160, TT–280) BL4,11 S5 F5 JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000′ NE end. 6300′ avbl lndg day/ngt rnwy 21 and lndg rnwys. Tkof rnwy 21 ngts. 7300′ avbl lndg rnwy 3 and tkof rnwys 21 days.
Tower[1] 118.7 122.5R ~~121.6~~ **Gnd Con** 121.7
Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1
Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
VHF/DF Ctc FSS and twr.
Remarks: [1]Oper 1300–0500Z.

PROVO (H) BVORTAC 116.6/PVU **FSS:** SALT LAKE CITY (LC 374–6327)

§SALT LAKE CITY MUNI NO. 1 *IFR* 4W **FSS:** SALT LAKE CITY on Fld
4226 H100/16R–34L(2) (S–100, T–160, TT–260) BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: Rnwy 7–25 & 14–32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500–2330Z Mon-Fri. No service holidays.
Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
ATIS: 116.8
Radar Services: (BCN)
Salt Lake App Con 120.9 122.7R 116.8T 109.5T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I–SLC Apch Brg 339° **LOM:** 239/SL
(H) VORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF[1] Ctc FSS
Remarks: [1]VHF/DF unusable 350–140°, 170–225° beyond 15 NM at MOCA. **VOT:** 111.0

VERNAL (L) BVOR 108.2/VEL **FSS:** GRAND JUNCTION

VERMONT

§BURLINGTON MUNI *IFR* 2E AOE **FSS:** MONTPELIER (LC 878–3393)
335 H78/15–33(2) (S–62, T–110, TT–195) BL5,6,8A,9 S5 F5, JP1, JP4 U2 DT2 **RVV:** Rnwys 15 and 33
Tower 118.3 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 122.5R 110.3T
Dep Con 119.2
ILS 110.3 I–BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H–SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF Ctc twr
Remarks: VOT: 109.0.

MONTPELIER (L) BVOR 108.2/MPV **FSS:** MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK **FSS:** MONTPELLER

RUTLAND RBn MHWZ 391/RUT **FSS:** GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD **FSS:** LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA **FSS:** BLUEFIELD

BLACKSTONE RBn MHW 326/BKT **FSS:** BLACKSTONE (0600–2200)
FSS: RICHMOND (2200–0600)

BROOKE (L) BVORTAC 111.8/BRV **FSS:** WASHINGTON

CAPE CHARLES (L) BVORTAC **FSS:** NEWPORT NEWS
112.2/CCV

VIRGINIA—*Continued*

CASANOVA (L) BVORTAC 109.6/CSN **FSS:** WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE ***IFR*** 7N
FSS: CHARLOTTESVILLE on fld
634 H46(1) BL4,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
ILS 109.1 I–CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.9 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD **FSS:** ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN **FSS:** DANVILLE

ECLIPSE RBn HW 209/NGU

EVINGTON RBn MHW 385/EVI **FSS:** ROANOKE

FELKER (T) VOR 111.4/FAF
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU
RBn MHW 356/NTU

FLAT ROCK (H) BVORTAC 113.3/FAK **FSS:** RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN **FSS:** NEWPORT NEWS
RBn H 362/FKN. Private facility

FRONT ROYAL (H) BVORTAC 115.3/FRR **FSS:** MARTINSBURG

GORDONSVILLE (H) BVORTAC **FSS:** CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM **FSS:** NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN **FSS:** WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW **FSS:** RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP **FSS:** ROANOKE
Remarks: Private Facility

LANGLEY (L) VOR 111.6/LFI

LAWRENCEVILLE (L) BVOR 112.9/LVL **FSS:** BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE **FSS:** ROANOKE

LINDEN (L) BVORTAC 114.3/LDN **FSS:** WASHINGTON

§LYNCHBURG MUNI-PRESTON GLENN FLD ***IFR*** 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sept 6.
Lynchburg Tower 120.7 122.5 **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS[1] 110.1 I–LYH Apch Brg 032°
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: [1]BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR **FSS:** CHARLOTTESVILLE
112.6/MOL

MORRISON RBn MHW 248/MOV

NAVY NORFOLK SMRLWZ 269/NGU

NEWPORT NEWS
§PATRICK HENRY ***IFR*** 9NW **FSS:** NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVR:** Rnwy 6
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30–Sept 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 126.8
ILS 110.1 I–PHF Apch Brg 065° **LOM:** 375/PH
Remarks: BC unusable below 1500′ MSL beyond 5 NM.

§NORFOLK MUNI ***IFR*** 5NE **FSS:** NEWPORT NEWS (DL)
26 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVV:** Rnwy 4
Remarks: DT May 30–Sept 5. Rnwy 13 threshold displaced 219′ SE. 4657′ avbl lndg rnwy 13. 4876′ avbl lndg and tkof rnwy 31 and tkof rnwy 13. Rnwy open day/ngt operns. Rnwy 19 threshold displaced 950′ SW. Dalgt operns 4050′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both direstions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibted from making eng runup when facing SE at the apch end of rnwy 4.
Tower 121.1 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 127.2 **Dep Con** 118.5
Tfc Info: Expanded radar air service Ctc App Con 35 mi out on 118.9
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526
ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF Ctc twr.

PULASKI (H) BVORTAC 115.9/PSK **FSS:** BLUEFIELD
Rng SBMRAZ[1] 272/PK
Remarks: [1]Reliable reception distance 40 NM.

RICHMOND
§RICHARD E. BYRD FLYING FIELD ***IFR*** 6 E **FSS:** RICHMOND on Fld
167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5 F5, JP1, JP4 U2 DT **RVV:** Rnwy 6
Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ overrun each end rnwy 15–33. DT may 30–Sept 5.
Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Richmond App Con 119.0 126.2 122.5R 119.9 110.3T
Richmond Dep Con 118.2
Tfc Info: Lndg acft ctc App Con 35 mi out on 119.9
ASR Rnwys 2, 15,[1] 20, 24,[1] 33[1] Ceil 400 Vsby 1 mi Min Alt 567
Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667
ILS 110.3 I–RIC Apch Brg 063° **LOM:** 382/RI
Richmond (H) BVORTAC 114.1/RIC on fld.
Richmond SBH 260/RIC 018° 1.7 NM to fld.
Remarks: [1]400–¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT:** 110.8.

§ROANOKE MUNI ***IFR*** 3 NW
FSS: ROANOKE on Fld
1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5 F5, JP1 U2 DT **REIL:** Rnwy 23
Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sept 6.
Tower 118.3 120.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 126.9 122.5R 120.2 109.0T
Dep Con 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374
Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV **FSS:** DANVILLE

SPRINGFIELD RBn MHW 353/SRI **FSS:** WASHINGTON

WOODRUM (T) VOR 109.0/ODR **FSS:** ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI FSS: BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K

ELLENSBURG (L) BVORTAC 117.9/ELN FSS: WENATCHEE

EPHRATA (H) BVOR 116.8/EPH FSS: EPHRATA

EVERETT
§PAINE FIELD ***IFR*** 6 SW FSS: SEATTLE (DL)
603 H90/16–34(2) (S–50, T–150, TT–220) BL6, 8A, 9 S5
F4, JP4 U2 DT2
Remarks: Rnwy 11 threshold displaced 1600′. Jet arresting barrier 3″ above rnwy 16/34 J-bar each end rnwy 34 not visible to twr 2000′ to 4000′ from apch end. Due constrn twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.
Tower 121.3 126.2 122.5R
Radar Services:
Seattle Center App Con 121.2
ASR Rnwy 16 Ceil 200 Vsby ½ mi Min Alt 803
ILS 109.3 I–PAE Apch Brg 155° **LOM:** 396/PAE
Everett (L) VOR 114.2/PAE on fld.
Everett RBn HW 396/PAE 158° 7.9 NM to fld
Remarks: LOM is HW.

GRAY RBn MH 216/GRF

HOQUIAM (H) BVORTAC 115.4/HQM FSS: HOQUIAM
Remarks: Restricted to awy and apch only.

KITSAP RBn MHW 206/PWT FSS: SEATTLE
Remarks: Operd by County.

MOSES LAKE FSS: EPHRATA
GRANT COUNTY 5.5 NW
1186 H135(2) BL5,6 **RVR:** Rnwys 14, 32
Remarks: Apch lgts unattended when twr not in opern.
Tower[1] 118.1 122.7R 117.0T **Gnd Con:** 121.9
ILS 109.5 I–MWH **LOM:** 408/MW
Moses Lake (L) VOR 117.0/MWH
Moses Lake RBn MHW 408/MW
Remarks: [1]Oper 1400–0700 Mon-Fri; 1400–0600 Sat-Sun. [2]RBn, ILS & VOR VFR practice only; monitored during hrs twr in opern. LOM is MHW.

NEAH BAY RBn HW 391/EBY FSS: SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM FSS: SEATTLE

PASCO (L) BVOR 108.4/PSC FSS: WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM FSS: SEATTLE

PULLMAN (L) BVOR 109.0/PUW FSS: WALLA WALLA
Remarks: For awy and apch use only.

§RENTON MUNI ***IFR*** Adjt NW 031° **FSS:** SEATTLE (LC RO 2–4000)
29 H53/15–33(1) (S–100, T–190, TT–300) BL5 S5
F4, U2 JP4 DT2
Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195–300° at 1000′ MSL beyond 2 mi.
Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9
Seattle Dep Con 119.2
Remarks: [1]Oper 0700–2300 lcl time.

SEATTLE
§KING COUNTY ARPT, BOEING FIELD ***IFR*** 4 S **FSS:** SEATTLE on fld
17 H100/13–31(2) (S–100, T–160, TT–290) BL6, 11, 12 S5
F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
Remarks: Rnwy 12–30 (Max–12.5)
Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2
ILS[1] 110.9 I–BFI Apch Brg 128° BC unusable **LOM:**[2] 387/BF
Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.

WASHINGTON—*Continued*

Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline. [2]LOM freq to be 260 Sep 29.

§SEATTLE-TACOMA INTL ***IFR*** 10 S FSS: SEATTLE (DL)
428 H119/16–34(2) S–45, T–145, TT–300) BL4,6,8A,9,14
S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I–SEA[1] Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I–SZI[2] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF Ctc twr.
Remarks: [1]Automatic apchs not authorized from MM to touchdown. [2]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

§SPOKANE INTL ***IFR*** 5 S FSS: SPOKANE
2372 H90/3–21(2) (S–100, T–200, TT–350) BL5, 6, 8A, 9
S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3–21.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3
Tfc Info Ctc Spokane App Con aprx 20 mi out.
ILS 109.9 I–GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: **VOT:** 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW FSS: SEATTLE

WALLA WALLA (L) BVOR 111.8/ALW FSS: WALLA WALLA
RBN BH 356/ALW

WENATCHEE (L) BVOR 111.0/EAT FSS: WENATCHEE

§YAKIMA MUNI ***IFR*** 2 S FSS: YAKIMA on Fld
1082 H55/9–27(3) (S–50, T–60, TT–100) BL4, 6 8A, 9 S5
F5, JP1, JP4 U2 **RVR:** Rnwy 27
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.7 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I–YKM Apch Brg 269° **LOM:** 284/YK
(H) BVOR 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW FSS: CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF FSS: BLUEFIELD

CHARLESTON
§KANAWHA ***IFR*** 2 NE FSS: CHARLESTON on Fld
982 H56/5–23(2) (S–150, T–200, TT–44) BL4, 6, 8A, 9, 11
S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:
Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I–CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/SRW 084° 8.1 NM to fld

WEST VIRGINIA—*Continued*

VHF/DF Ctc twr.
Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. **VOT:** 111.0.

CLARKSBURG (L) BVOR 115.1/CKB **FSS:** MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN **FSS:** ELKINS
Rng SBMRAZ[1] 245/EN
Remarks: [1]Reliable reception distance 40 NM.

HENDERSON (L) BVORTAC 111.2/HNN **FSS:** HUNTINGTON

HUNTINGTON
§TRI-STATE (WALKER LONG FLD) ***IFR*** 6 SW **FSS:** HUNTINGTON on Fld
828 H53/11–29(1) (S–50, T–75, TT–135) BL6, 8A, 9 S5 F4, JP1 U2 DT1
Huntington Tower 120.9 122.5R **Gnd Con** 121.9
Huntington App Con 118.5 122.5R 109.9T
ILS[1] 109.9 I–HTS Apch Brg 114° **LOM:** 287/HT
Huntington RBn BH 323/HTW 199° 2.5 NM to fld.
Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL **FSS:** ELKINS

§MARTINSBURG MUNI ***IFR*** 4 S **FSS:** MARTINSBURG on Fld
556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2
Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Dulles App Con 119.2 126.1
Dulles Dep Con 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ¾ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.
Remarks: [1]Oper 0830–1630 lcl time Tues, Thur, Sat and Sun; 0830–2200 lcl time Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 lcl time Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW **FSS:** MORGANTOWN
RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB **FSS:** PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL **FSS:** CHARLESTON

§WHEELING-OHIO COUNTY ***IFR*** 7 N **FSS:** WHEELING on Fld
1195 H50/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12 F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21
Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9
ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL
Wheeling (L) BVORTAC 112.2/HLG 220° 5.8 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU **FSS:** ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW **FSS:** GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ **FSS:** WAUSAU

CAMP MC COY RBn MHW 412/CAY

DELLS (L) BVORTAC 110.4/DLL **FSS:** LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU **FSS:** EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD **FSS:** GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG **FSS:** MINNEAPOLIS

WISCONSIN—*Continued*

GREEN BAY
§AUSTIN STRAUBEL ***IFR*** 7 SW **FSS:** GREEN BAY on Fld
694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT1 **RVR:** Rnwy 6
Remarks: US Customs lndg rts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE
Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9
Green Bay App Con 119.4
VFR ADV Ctc App Con on 119.4.
ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR
Green Bay (H) BVORTAC 117,0/ GRB 145° 4.6 NM to fld.
VHF/DF Ctc FSS.

JANESVILLE
ROCK COUNTY ***IFR*** 4 SW **FSS:** ROCKFORD (LC EN5639)
808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2
REIL: Rnwy 4
Remarks: Rnwy 22 threshold displaced 698′ NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.
Tower[1] 121.2 122.7R 121.5x[2] **Gnd Con** 121.9
Rockford App Con 119.6
(L) BVORTAC 113.4/JVL
Remarks: [1]Opers 0600–2200 lcl time. [2]Thru Rockford FSS.

LACROSSE (T) BVOR 108.4/LSE **FSS:** LACROSSE
RBn MHW 371/LSE

LAND 'O LAKES RBn MHW 396/LNL **FSS:** WAUSAU
Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR **FSS:** LONE ROCK

MADISON
§TRUAX FIELD ***IFR*** 5 NE **FSS:** MADISON on Fld
859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36
Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.
Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9
Madison App Con 120.1 126.2 109.9T
Madison Dep Con 118.8
VFR ADV Ctc App Con on 120.1.
ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN
Madison RBn MHW 400/MSN 359° 3.9 NM to fld.
Truax (L) BVOR 115.5/TAX at fld.
VHF/DF Ctc FSS.
Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW **FSS:** GREEN BAY

MARSHFIELD RBn MHW 391/MFI
Remarks Operd by City

MILWAUKEE
§GENERAL MITCHELL FLD ***IFR*** 5 S **FSS:** MILWAUKEE on Fld
722 H99/1–19(4) (S–100. T–185, TT–350) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwys 1, 7R
Remarks: Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N. Rnwy 7L threshold displaced 667′ NE. Rnwy 25R threshold displaced 944′ SW. Air carrier turbo-jet trng lndgs and tkofs prohibited 0330–1100Z. Tkofs permitted rnwy 7R btn 040–100° and wind velocity greater than 10 knots only.
Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 120.0

WISCONSIN—*Continued*

Radar Services: (BCN)

Milwaukee App Con 126.5 123.8 126.2 116.4T 110.3T 242T

Milwaukee Dep Con 118.0 126.2 122.7R 118.6

Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.

ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19, 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223

ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK

Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.

Mitchell BRn H–SAB 242●/GM 070° 5.8 to rnwy 7R

VHF/DF Ctc twr.

Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. **VOT:** 109.0

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§TIMMERMAN FIELD *IFR* 5 NW **FSS:** MILWAUKEE (DL)

745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1

Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County arpt Director except emgcy.

Tower[1] 120.5 122.5R 121.5x[4] **Gnd Con** 121.7

Radar Services:

Milwaukee App Con 126.5[3] 126.2 123.8[2] 116.4T 110.3T 242T

Milwaukee Dep Con 118.0 126.2 122.7R 118.6

Tfc Info Ctc Milwaulkee App con 123.8 E sector; 126.5 W sector.

Timmerman (L) BVOR 108.6/MWC on fld.

Remarks: [1]Oper 1200–0400Z. [2]360–179. [3]180–359. [4]Thru Mitchell Twr or Milwaukee FSS.

OSHKOSH

§WINNEBAGO CO *IFR* 1 SW **FSS:** GREEN BAY (DL)

795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2

Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.

Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9

Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.

ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS

Oshkosh (L) BVOR 111.8/OSH at fld.

Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC **FSS:** MILWAUKEE

REWEY (L) BVOR 115.8/RWY **FSS:** LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI **FSS:** WAUSAU

SHEBOYGAN MHW 254/SBM

STEVENS POINT (L) BVOR-DME 110.6/STE **FSS:** WAUSAN

Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC **FSS:** MILWAUKEE

TRUAX (L) BVOR 115.5/TAX

VOLK (L) VOR 109.0/VOK

RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW **FSS:** WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI **FSS:** ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY **FSS:** WORLAND

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§CASPER AIR TERMINAL *IFR* 7 NW **FSS:** CASPER on Fld

5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2

WYOMING—*Continued*

Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.

Tower 118.3 122.5R ~~121.6~~ **Gnd Con** 121.9

App Con 120.7 122.5R 116.2T 110.3T

ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP

(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.

RBn SABH 269●/CPR 255° 6.7 NM to fld.

VHF/DF ctc FSS.

Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVORTAC 112.2/CKW **FSS:** RAWLINS

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§CHEYENNE MUNI *IFR* 1 N **FSS:** CHEYENNE on Fld

6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30

Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.

Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9

App Con 120.0 122.5R 113.1T 109.9T

VFR Adv Ctc App Con on 120.0 aprx 25 mi out.

ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY

(H) BVORTAC 113.1CYS 196° 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI **FSS:** SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW **FSS:** CASPER

DUNOIR (L) BVOR 113.4/DNW **FSS:** WORLAND

FORT BRIDGER (L) BVORTAC 108.6/FBR **FSS:** ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC **FSS:** IDAHO FALLS

Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR **FSS:** LARAMIE

MEDICINE BOW (L) BVOR 114.1/MBW **FSS:** LARAMIE

RIVERTON (L) BVOR 108.8/RIW **FSS:** WORLAND

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§ROCK SPRINGS MUNI *IFR* 7E **FSS:** ROCK SPRINGS on Fld

6747 H67/7–25(2) BL4,6,7 S3 F4

Remarks: Fee.

ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK

(H) BVORTAC 114.7/RKS

RBn SABH 290/RKS

VHF/DF Ctc FSS.

SHERIDAN (L) BVORTAC 115.3/SHR **FSS:** SHERIDAN

SINCLAIR RBn SBH 368/SIR **FSS:** RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE **FSS:** SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ **FSS:** SAN JUAN

SAN JUAN

§ISLA GRANDE Adj W **FSS:** SAN JUAN

10 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4

Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R **Gnd Con** 121.7

Remarks [1]Oper 1100–0200Z

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§PUERTO RICO INTL 6E **FSS:** SAN JUAN

9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7

Remarks: U.S. Customs lndg rqts. Lndg fee over 7500 lbs.

San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9

Radar Services:

San Juan App Con 124.6 119.0

San Juan Dep Con 120.9

PUERTO RICO—*Continued*

ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391.SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP **FSS:** SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX **FSS:** ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W **FSS:** SAN JUAN
11 H42/9-27(1) (S-30, T-45, TT-70) BL5 F4
Remarks: U.S. Customs lndg rgts.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

WISCONSIN—*Continued*

Radar Services: (BCN)
Milwaukee App Con 126.5 123.8 126.2 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19, 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Mitchell BRn H–SAB 242●/GM 070° 5.8 to rnwy 7R
VHF/DF Ctc twr.
Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. **VOT:** 109.0

§TIMMERMAN FIELD *IFR* 5 NW **FSS:** MILWAUKEE (DL)
745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County arpt Director except emgcy.
Tower[1] 120.5 122.5R 121.5x[4] **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[3] 126.2 123.8[2] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info Ctc Milwaulkee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200–0400Z. [2]360–179. [3]180–359. [4]Thru Mitchell Twr or Milwaukee FSS.

OSHKOSH
§WINNEBAGO CO *IFR* 1 SW **FSS:** GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC **FSS:** MILWAUKEE

REWEY (L) BVOR 115.8/RWY **FSS:** LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI **FSS:** WAUSAU

SHEBOYGAN MHW 254/SBM

STEVENS POINT (L) BVOR-DME 110.6/STE **FSS:** WAUSAN
Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC **FSS:** MILWAUKEE

TRUAX (L) BVOR 115.5/TAX

VOLK (L) VOR 109.0/VOK
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW **FSS:** WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI **FSS:** ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY **FSS:** WORLAND

§CASPER AIR TERMINAL *IFR* 7 NW **FSS:** CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2

WYOMING—*Continued*

Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.6~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVORTAC 112.2/CKW **FSS:** RAWLINS

§CHEYENNE MUNI *IFR* 1 N **FSS:** CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
App Con 120.0 122.5R 113.1T 109.9T
VFR Adv Ctc App Con on 120.0 aprx 25 mi out.
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1CYS 196° 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI **FSS:** SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW **FSS:** CASPER

DUNOIR (L) BVOR 113.4/DNW **FSS:** WORLAND

FORT BRIDGER (L) BVORTAC 108.6/FBR **FSS:** ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC **FSS:** IDAHO FALLS
Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR **FSS:** LARAMIE

MEDICINE BOW (L) BVOR 114.1/MBW **FSS:** LARAMIE

RIVERTON (L) BVOR 108.8/RIW **FSS:** WORLAND

§ROCK SPRINGS MUNI *IFR* 7E **FSS:** ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290/RKS
VHF/DF Ctc FSS.

SHERIDAN (L) BVORTAC 115.3/SHR **FSS:** SHERIDAN

SINCLAIR RBn SBH 368/SIR **FSS:** RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE **FSS:** SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ **FSS:** SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W **FSS:** SAN JUAN
10 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100–0200Z

§PUERTO RICO INTL 6E **FSS:** SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9

PUERTO RICO—*Continued*

ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391.SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP **FSS:** SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX **FSS:** ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W **FSS:** SAN JUAN
11 H42/9-27(1) (S-30, T-45, TT-70) BL5 F4
Remarks: U.S. Customs lndg rqts.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE PART I DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)	VHF (High)
119.8 120.1 124.5 124.6	132.65 132.9 133.0 133.05
124.7 125.2 125.4 125.9	133.45 133.55 133.65 133.8
126.0 126.4 126.9 127.2	133.85 134.35 134.45 134.75
132.3 134.5	135.05 135.15 135.3 135.7
	135.8

ATLANTA

VHF (Low)	VHF (High)
118.9 120.0 120.3 120.8	132.25 132.75 132.85 132.9
120.9 121.2 123.8 124.1	133.1 133.35 133.7 134.45
124.4 125.2 125.5 126.4	134.55 134.6 135.15 135.75
126.6 126.8 127.55 127.8	
127.95 128.3 128.6 128.65	
128.75 135.6	

BOSTON

VHF (Low)	VHF (High)
119.0 121.0 124.0 124.2	127.8 128.1 132.5 132.65
124.9 125.8 127.0 127.1	132.9 133.5 134.3 134.7
127.3 127.6 127.8 127.9	134.45 134.95 134.85
128.1 128.2 132.4 132.5	
132.65 135.7	

CHICAGO

VHF (Low)	VHF (High)
119.4 119.6 120.2 120.4	124.5 127.95 128.65 132.15
120.6 120.8 121.4 123.9	132.4 132.5 132.75 133.1
124.0 124.1 124.4 124.8	133.35 133.5 133.7 133.9
125.1 125.2 125.6 126.4	133.95 134.85 135.1 135.35
126.6 126.8 127.0 127.1	135.55
127.5 127.6 127.7 127.8	
128.0 128.05 128.2 128.4	
128.5 128.7 132.2 132.3	
133.9	

CLEVELAND

VHF (Low)	VHF (High)
118.8 118.9 119.6 119.8	132.25 132.45 133.25 133.3
120.2 120.3 120.4 120.6	133.95 134.25 134.65
120.8 121.2 121.4 123.9	
124.2 124.3 124.4 124.6	
125.0 125.1 125.2 125.3	
125.6 125.7 126.1 126.4	
126.8 127.15 127.45 127.5	
127.65 127.9 128.35 128.45	
128.6 134.3	

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)	VHF (High)
119.8 124.1 125.0 125.6	127.55 128.2 132.1 132.05
125.8 126.0 127.2 127.8	132.15 132.85 133.15 127.3
132.5 132.7 133.0 133.4	133.3 133.75 133.85 134.4
134.6	134.65 134.7 135.5 135.15
	135.65

FORT WORTH

VHF (Low)	VHF (High)
119.4 124.4 124.6 124.7	132.2 132.35 132.45 132.55
124.8 125.0 125.5 125.6	132.75 133.25 133.35 133.5
126.0 126.6 127.3 127.7	133.55 133.7 133.95 134.25
128.1 128.3 128.8 133.1	134.55 134.85 135.1 135.35
133.3 133.9 135.0 135.6	135.4 135.6 135.75

GREAT FALLS

VHF (Low)	VHF (High)
120.4 124.1 125.0 125.1	118.9 125.0 132.25 132.65
125.8 125.9 126.4 126.5	132.95 133.4 133.55 134.55
127.6	135.25 135.55

HOUSTON

VHF (Low)	VHF (High)
118.2 118.9 120.6 120.7	127.8 132.15 132.4 132.5
121.0 121.2 124.0 124.1	132.6 132.7 132.8 132.95
124.2 125.8 125.9 126.0	133.05 133.4 133.65 133.75
126.4 126.6 126.8 126.9	133.85 134.35 134.8 134.95
126.95 127.0 127.2 128.0	135.2
128.1 128.2 128.3 128.4	
132.9 134.7	

INDIANAPOLIS

VHF (Low)	VHF (High)
118.2 124.2 124.4 124.8	128.25 132.7 133.05 133.45
126.0 127.0 127.1 127.3	133.75 134.35 134.75 134.9
127.4 128.3 128.4 128.55	134.95
128.8 132.2 132.6 135.1	
135.7 135.8	

ARTCC COMMUNICATIONS FREQUENCIES

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
121.3	124.3	124.7	125.1	133.25	133.95	134.25	134.75
125.5	126.5	126.9	127.2	134.85	135.4	135.05	135.25
128.1	132.3	132.5	132.8	135.55	135.65		
133.4	133.5	134.3	134.7				

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.5	135.4			
125.9	127.4	127.5	127.6				
127.7	127.8	128.1	128.4				
128.6	132.1	134.6	134.9				

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	125.8	127.9	128.3	128.6	132.15
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.8
127.1	127.3	127.4	128.2	134.55	134.75	134.95	135.25
128.4	128.8	132.3	132.5	135.45			
132.6	133.4	133.8	134.2				
134.4	134.6	135.05					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	126.1	127.1	134.25	134.9	135.3	135.5
127.2	127.25	127.3	127.4	135.7			
127.6	127.75	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	125.8	127.7	132.7
124.4	124.5	124.7	125.4	132.15	132.95	133.65	133.8
125.6	125.8	126.4	127.0	134.35	134.5	134.95	135.5
127.2	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.5	132.15	133.4	133.55	133.65
125.6	125.9	126.0	126.1	133.85	134.25	134.45	134.8
127.1	127.2	127.3	127.8	134.55	135.45	135.7	
127.9	128.6	132.1	132.6				
134.6	134.8						

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.2	132.1	132.3	132.75	132.95
124.8	125.1	125.3	125.4	133.8	133.9	134.8	135.45
125.5	125.6	126.0	126.4	135.55	135.75		
126.6	126.8	126.9	127.95				
128.2	128.3	128.5	128.65				
128.7	132.6	134.6	135.1				
135.55	135.6	135.65					

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	128.15	132.05	132.8	132.65
121.2	123.8	123.9	124.2	132.85	132.95	133.3	133.7
124.6	125.5	125.7	125.9	133.75	134.35	134.7	
126.5	126.8	127.05	127.3				
127.2	127.5	127.7	127.8				
128.7							

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.40	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	128.4	133.1	134.25	134.85	135.7	

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.3	125.1	125.3	125.6	133.5	133.65	133.9	134.65
125.8	126.0	128.1	132.1	134.75			
132.6	133.5						

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.5	133.15	133.55	133.65	133.85
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
134.3	135.0	135.4					

SAN JUAN

VHF (Low)	VHF (High)			
	119.9	120.3	121.5	125.0

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 1 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed. Four designated part-time FSS's transmit and receive on only 123.6 and 121.5 (emergency). These are identified in the tabulation by ✓ symbol preceding the name.

ALABAMA

Location and Identifier			Area Code	Telephone
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595-6151▬
		WB	(205)	595-2101★
Dothan DHN	DF	FSS	(205)	794-6683
Huntsville HSV		FSS	(205)	536-1254
		WB	(205)	881-2761◆
Mobile MOB (Bates)		FSS	(205)	342-1177
		WB	(205)	342-2762◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269-4368
		WB	(205)	263-0621◆
Muscle Shoals MSL	DF	FSS	(205)	383-6541
		WB	(205)	383-6657◆
Tuscaloosa TCL		FSS	(205)	758-3628

ARIZONA

Location and Identifier			Area Code	Telephone
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4-5353
Flagstaff		WB	(602)	774-1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261-4295▬
		WB	(602)	261-3868★
Prescott PRC	DF	FSS	(602)	HI 5-2160
Tucson TUS	DF	FSS	(602)	294-1463▬
Winslow		WB	(602)	289-3592
Yuma YUM		FSS	(602)	725-2601▬

ARKANSAS

Location and Identifier			Area Code	Telephone
El Dorado ELD (Goodwin)		FSS	(501)	UN 3-9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2-8277

ARKANSAS (Con't)

Location and Identifier			Area Code	Telephone
Ft. Smith FSM		FSS	(501)	MI 6-7868/69
		WB	(501)	646-5731
Harrison HRO		FSS	(501)	EM 5-3433
Little Rock		WB	(501)	374-1546◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5-0652
Texarkana TXK		FSS	(501)	774-6221
Walnut Ridge ARG		FSS	(501)	TU 6-6671

CALIFORNIA

Location and Identifier			Area Code	Telephone
Arcata ACV	DF	FSS	(707)	TE 9-2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399-1787▬
Bishop		WB	(714)	873-3213 (0545-1915)
Blue Canyon		WB	Emigrant Gap	2721 (0545-1415)
Blythe BLH	DF	FSS	(714)	948-6638
Burbank				
		WB	(213)	848-6206◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4-2514
Daggett DAG		FSS	(714)	CL4-2223
Eureka		WB	(707)	442-2171◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251-8269▬
Imperial IPL		FSS	(714)	355-1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429-0337◆
Los Angeles LAX (International)		FSS	(213)	SP 6-2727
		WB	(213)	670-2223
Marysville MYV (Yuba Co.)		FSS	(916)	742-1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459-3003
Mt Shasta		WB	(916)	926-2227 (0730-1600)
Needles EED		FSS	(714)	326-3511

CALIFORNIA (Con't.)

Location and Identifier			Area Code	Telephone
Oakland OAK (International)		FSS	(415)	562-7807▬
		WB	(415)	832-5418★
				(Via San Francisco)
Ontario ONT		FSS	(714)	983-2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947-3502
Paso Robles PRB	DF	FSS	(805)	238-2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527-0242▬
Sacramento SAC	DF	FSS	(916)	428-6500▬
Salinas SNS		FSS	(408)	422-4723
San Diego SAN (Lindbergh)		FSS	(714)	296-3181▬
San Francisco		WB	(415)	589-6711★
		WB	(415)	761-2052◆
(So. San Francisco)		WB	(415)	588-3012
Santa Barbara SBA		FSS	(805)	967-2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925-3525
				(0600-2200)
Stockton SCK		FSS	(209)	466-3684▬
Thermal TRM		FSS	(714)	EX 9-5155
Ukiah UKI		FSS	(707)	462-6136

COLORADO

Location and Identifier			Area Code	Telephone
Akron AKO		FSS	(303)	345-2271
Alamosa		WB	(303)	589-2547
				(0400-2000)
Colorado Springs		WB	(303)	632-0535◆
Denver DEN (Stapleton Intl)		FSS	(303)	297-3277▬
		WB	(303)	388-3653★
Eagle EGE		FSS	(303)	328-2125
Grand Junction GJT (Walker Field)		FSS	(303)	242-1801▬
La Junta LHX		FSS	(303)	DU 4-4311
Pueblo PUB (Memorial)		FSS	(303)	948-3301
		WB	(303)	948-3376◆
Trinidad TAD	DF	FSS	(303)	846-2623

CONNECTICUT

Location and Identifier			Area Code	Telephone
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247-2855◆
New Haven		WB	(203)	469-2141◆
				(0630-1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3-5590

DELAWARE

Location and Identifier			Area Code	Telephone
Wilmington		WB	(302)	328-2755◆

DISTRICT OF COLUMBIA

Location and Identifier			Area Code	Telephone
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661-8526◆
Washington National DCA		FSS	(202)	DI 7-4040
		WB	(202)	628-0491▬
		WB	(202)	347-8016★

▬This line answered by FSS or WB. Caller can be switched to either office upon request.

FLORIDA

Location and Identifier			Area Code	Telephone
Apalachicola		WB	(305)	653-3171
Crestview CEW	DF	FSS	(305)	MU 2-2795
Daytona Beach DAB		FSS	(904)	255-4767
		WB	(904)	252-3112
Ft. Myers FMY (Page Field)		FSS	(813)	936-1857
		WB	(813)	WE 6-2057
				(0600-1400 Apr-Oct)
				(0600-2200 Nov-Mar)
Gainesville GNV		FSS	(904)	376-8521
Jacksonville JAX (Imeson)		FSS	(904)	355-3601▬
		WB	(904)	353-8605★
Key West EYW (International)		FSS	(305)	CY 6-2042
		WB	(305)	CY 6-2011
Lakeland		WB	(813)	682-4221
				(0600-2400 Nov 15-Mar 15)
				(0800-1700 Mar 16-Nov 14)
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3-6151
Miami MIA		IFSS	(305)	633-1461▬
		WB	(305)	666-2543★
Orlando ORL (Herndon)		FSS	(305)	841-5101▬
Pensacola PNS		FSS	(305)	HE 8-4390
St Petersburg via Tampa		FSS	(813)	527 2148/9
		WB	(813)	894-3086★
Tallahassee TLH	DF	FSS	(305)	224-7101
		WB	(305)	222-3335
Tampa TPA (Tampa International)		WB	(813)	229-1708★
		WB	(813)	877-1677◆
Vero Beach VBR	DF	FSS	(305)	562-2167
			(305)	464-1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832-5697★
		WB	(305)	683-3032◆

GEORGIA

Location and Identifier			Area Code	Telephone
Albany ABY		FSS	(912)	435–6201
Alma AMG		FSS	(912)	632–4422 (0600–2200 EST)
Athens		WB	(404)	LI 3–3891◆
Atlanta FTY (Fulton Co.)	DF	FSS	(404)	344–1551
		WB	(404)	767–0244★
		WB	(404)	767–3187◆
Augusta AGS (Bush Fld)		FSS	(404)	798–5164
		WB	(404)	798–6821◆
Brunswick SSI (Malcom McKinnon)		FSS	(912)	638–8641
Columbus		WB	(404)	322–1793◆ (0630–2045)
Macon MCN (Muni)	DF	FSS	(912)	788–5064
		WB	(912)	788–1100◆
Rome		WB	(404)	232–6801 (0700–1300 Mon–Fri) (0700–1100 Sat)
Savannah SAV (Travis)		FSS	(912)	234–2257/8▬
Valdosta VLD		FSS	(912)	CH 4–2361

IDAHO

Location and Identifier			Area Code	Telephone
Boise BOI (Air Terminal)		FSS	(208)	343–2525▬
Burley BYI		FSS	(208)	678–7451
Idaho Falls IDA (Fanning Field)	DF	FSS	(208)	522–9024
Lewiston		WB	(208)	743–3841
Malad City MLD		FSS	(208)	766–2971
Mullan Pass MLP		FSS	(208)	PR 5–2001
Pocatello PIH		FSS	(208)	232–2032
		WB	(208)	233–0143◆

ILLINOIS

Location and Identifier			Area Code	Telephone
Champaign CMI (University of Ill.)		FSS	(217)	822–5211
Chicago		WB	(312)	686–2155◆
		WB	(312)	667–5055★
Joliet JOT	DF	FSS	(815)	725–3144
		FSS	(312)	242–3111
Moline MLI (Quad City)		FSS	(309)	762–2412
		WB	(309)	762–1726
Peoria PIA (Greater Peoria)		FSS	(309)	697–0751
		WB	(309)	637–6422◆
Quincy UIN (Baldwin)		FSS	(217)	885–3251
Rockford RFD (Greater Rockford)		FSS	(815)	965–6758
		WB	(815)	963–5816◆ (0515–2115)
Springfield SPI (Capital)		FSS	(217)	544–9012
		WB	(217)	523–5812◆
Vandalia VLA		FSS	(618)	283–0478

INDIANA

Location and Identifier			Area Code	Telephone
Evansville EVV (Dress Memorial)	DF	FSS	(812)	422–8120
		WB	(812)	424–9613◆
Ft. Wayne FWA (Baer Field)		FSS	(219)	747–3139
		WB	(219)	747–2577◆
Indianapolis IND (Weir-Cook)	DF	FSS	(317)	244–3316▬
		WB	(317)	244–2411★
Layfayette LAF (Purdue University)		FSS	(317)	743–1802/3
South Bend SBN (St. Joseph Co.)	DF	FSS	(219)	CE 3–4433
		WB	(219)	234–3937◆
Terre Haute HUF (Hulman)	DF	FSS	(812)	C–2704

IOWA

Location and Identifier			Area Code	Telephone
Burlington BRL		FSS	(319)	752–4734
Cedar Rapids CID		FSS	(319)	364–3041
Davenport (via Moline Ill.)		WB	(319)	326–2677
Des Moines DSM		FSS	(515)	285–5691
		WB	(515)	284–4493◆
Dubuque		WB	(319)	582–3171 (0545–2105)
Mason City MCW		FSS	(515)	GA 3–7512
Ottumwa OTM		FSS	(515)	MU 2–1846
Sioux City SUX	DF	FSS	(712)	258–1060
		WB	(712)	252–0244 ext 210
Waterloo ALO		FSS	(319)	AD 3–5528
		WB	(319)	234–1602◆

KANSAS

Location and Identifier			Area Code	Telephone
Concordia		WB	(913)	243–3141
Chanute CNU		FSS	(316)	HE 1–4450
Dodge City DDC		FSS	(316)	HU 3–3441
		WB	(316)	483–3311
Emporia EMP		FSS	(316)	DI 2–7475
Garden City GCK (New Municipal)		FSS	(316)	BR 6–2531
Goodland GLD	DF	FSS	(913)	899–7154▬
Hill City HLC		FSS	(913)	674–5642
Hutchinson HUT		FSS	(316)	2–4851
√Manhattan MHK		FSS	(913)	PR 8–2162 (0700–2100) (Other hrs. Salina) LC PR 6–9751
Russell RSL		FSS	(913)	483–2312
Salina SLN		FSS	(913)	TA 5–5309
Topeka TOP (Phillip Billard)		FSS	(913)	232–5478
		WB	(913)	CE 4–8659◆
Wichita ICT		FSS	(316)	942–2261/2
		WB	(316)	942–3284★
		WB	(316)	943–1063◆

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

KENTUCKY

Location and Identifier			Area Code	Telephone
Bowling Green BWG (Warren County)		FSS	(502)	843–4424
Erlanger (Gtr Cincinnati Arpt)		WB	(513)	381–8195◆
Lexington LEX (Blue Grass)		FSS	(606)	254–5143
		WB	(606)	255–1774◆
London LOZ		FSS	(606)	864–4410
Louisville LOU (Bowman)		FSS	(502)	451–5344
		WB	(502)	368–2188◆
Paducah PUK (Barkley)		FSS	(502)	442–1551

LOUISIANA

Location and Identifier			Area Code	Telephone
Alexandria AEX	DF	FSS	(318)	445–3663▬
Baton Rouge BTR (Ryan)		FSS	(504)	EL 5–2763
		WB	(504)	357–9943◆
Lafayette LFT		FSS		CE 5–3752
		WB		234–1220◆
Lake Charles LCH		FSS	(318)	477–1784▬
		WB	(318)	477–5227◆
Monroe MLU		FSS	(318)	322–3157
New Orleans MSY		FSS	(504)	943–5535
		WB	(504)	523–4311★
		WB	(504)	729–2520◆
Shreveport SHV (Greater Shreveport)		FSS	(318)	ME 1–3661
		WB	(318)	631–1141◆

MAINE

Location and Identifier			Area Code	Telephone
Augusta AUG (State)	DF	FSS	(207)	622–6491
Caribou		WB	(207)	496–8931
Houlton HUL (Memorial International)	DF	FSS	(207)	532–2475
Millinocket MLT		FSS	(207)	723–8343
Old Town OLD		FSS	(207)	827–2363
		FSS	(207)	827–4010
Portland PWM		FSS	(207)	SP 5–0602
		WB	(207)	775–3071◆

MARYLAND

Location and Identifier			Area Code	Telephone
Baltimore		WB	(301)	761–1333◆
		WB	(301)	766–0757★
Salisbury SHV (Salisbury-Wicomico)		FSS	(301)	742–8719

MASSACHUSETTS

Location and Identifier			Area Code	Telephone
Boston BOS (Logan)		FSS	(617)	LO 7–0099▬
		FSS	(617)	LO 7–0015▬
		WB	(617)	569–1773★
Nantucket ACK	DF	FSS	(617)	228–0815▬
		WB	(617)	228–0971
Worcester ORH		FSS	(617)	PL 5–6083
		WB	(617)	798–2124◆ (0600-2200)

MICHIGAN

Location and Identifier			Area Code	Telephone
Alpena		WB	(517)	354–8733◆
Battle Creek BTL (Kellogg)		FSS	(616)	962–7878
Detroit DTW (City)		FSS	(313)	372–3737
		WB	(313)	274–5310★
		WB	(313)	278–7340◆
Detroit (Willow Run)		WB	(313)	482–5001◆ (0600–2200)
Flint FNT (Bishop)		FSS	(313)	CE 3–6250
		WB	(313)	CE 4–3987◆
Grand Rapids GRR (Kent County)		FSS	(616)	949–4090
		WB	(616)	949–4251◆
Houghton CMX (Houghton County)		FSS	(906)	482–0380
Houghton Lake (Roscommon County)		WB	(517)	366–5392
Jackson JXN (Reynolds Mun.)		FSS	(517)	ST 4–9640
Lansing LAN (Capital City)		FSS	(517)	482–9237
		WB	(517)	489–4603◆
Marquette MQT		FSS	(906)	GR 5–4197
		WB	(906)	226–8642◆ (0500–2100)
Muskegon MKG (Muskegon County)		FSS	(616)	798–1222
		WB	(616)	798–3048
Pellston PLN (Emmet County)		FSS	(616)	LE 9–8401
Saginaw MBS (Tri City)	DF	FSS	(517)	OX 5–6621
Saulte Ste Marie SSM		FSS	(906)	632–8271
		WB	(906)	632–9461
Traverse City TVC		FSS	(616)	947–5056
Ypsilanti		WB	(313)	482–5001 (0600–2200)

MINNESOTA

Location and Identifier			Area Code	Telephone
Alexandria AXN		FSS	(612)	763–3710
Duluth		WB	(218)	722–7982◆
Hibbing HIB (Chisholm-Hibbing)	DF	FSS	(218)	262–1820
International Falls		WB	(218)	285–5151
Minneapolis MSP St. Paul Intl		FSS	(612)	PA 9–9386
(Wold-Chamberlain)	DF	FSS	(612)	PA 9–1957
		WB	(612)	PA 9–4429◆
		WB	(612)	729–9339★
Redwood Falls RWF		FSS	(507)	637–8530
Rochester RST		FSS	(507)	289–1579▬
St. Cloud		WB	(612)	251–3213 (0400–2200)
St. Paul (See: Minneapolis)				

MISSISSIPPI

Location and Identifier			Area Code	Telephone
Greenwood GRW		FSS	(601)	GL 3–2631
Jackson JAN (Thompson Field)		FSS	(601)	939–5212
		WB	(601)	939–5881◆

Location and Identifier		Area Code	Telephone
MISSISSIPPI (Con't.)			
McComb MCB (Pike County)	FSS	(601)	684-7070
Meridian MEI (Key Field)	FSS	(601)	482-1243
	WB	(601)	483-3725◆
Vicksburg	WB	(601)	636-1193
			(0630-1530 Mon-Fri)
			(0630-1130 Sat, Holidays)
			(clsd Sunday)
MISSOURI			
Cape Girardeau GGI	FSS	(314)	ED 4-2803
Columbia CBI	FSS	(314)	449-1136/7
	WB	(314)	443-4332
Joplin JLN	FSS	(417)	MA 3-6868
Kansas City MKC	FSS	(816)	GR 1-5484▬
	WB	(816)	471-2131★
Kirksville IRK	FSS	(816)	MO 5-4132
St. Joseph STJ (Rosecrans Memorial)	FSS	(816)	BR 9-2394
St. Louis STL (Lambert)	FSS	(314)	PE 1-0900
	WB	(314)	731-3001◆
	WB	(314)	PE 1-3004★
	WB	(314)	848-3303★
			(Hazlewood)
Springfield SGF DF	FSS	(417)	862-3588▬
Vichy VIH (Rolla National)	FSS	(314)	AX 9-3677
MONTANA			
Billings BIL (Logan Field) DF	FSS	(406)	259-4545▬
Bozeman BZN (Gallatin Field)	FSS	(406)	586-6520
Butte BTM (Silver Bow)	FSS	(406)	723-3004
Cut Bank CTB	FSS	(406)	938-4522
Dillon DLN	FSS	(406)	683-5651
Glasgow Intl	WB	(406)	228-8395
			(0300-2400)
Great Falls GTF (International)	FSS	(406)	452-6495
	WB	(406)	453-3512◆
Havre	WB	(406)	265-6424
			(0430-1315)
Helena HLN	FSS	(406)	442-9902
	WB	(406)	442-8260
Kalispell	WB	(406)	756-4829
Lewistown LWT	FSS	(406)	538-3639
Livingston LVM (Mission Field)	FSS	(406)	222-2411
Miles City MLS DF	FSS	(406)	232-1503
Missoula MSO (Missoula City)	FSS	(406)	542-2230
	WB	(406)	543-7996◆

Location and Identifier		Area Code	Telephone
NEBRASKA			
Chadron CDR	FSS	(308)	HE 2-3153
Grand Island GRI	FSS	(308)	382-5196
	WB	(308)	384-1907
Imperial IML	FSS	(308)	TU 2-4887
Lincoln LNK (Mun/AFB)	FSS	(402)	477-3929▬
Norfolk	WB	(402)	371-3386
			(0530-2130)
North Plate LBF (Lee Bird)	FSS	(308)	LE 2-4034▬
Omaha OMA (Eppley)	FSS	(402)	341-6178▬
	WB	(402)	342-3603★
Scottsbluff BFF	FSS	(308)	635-2615
	WB	(308)	632-6822
Sidney SNY	FSS	(308)	254-3130
Valentine	WB	(402)	376-3442
NEVADA			
Elko EKO	FSS	(702)	738-6506▬
Ely ELY (Yelland Filed)	FSS	(702)	289-2045
	WB	(702)	289-2403
Las Vegas LAS (McCarran)	FSS	(702)	736-1573/4▬
Lovelock LOL (Derby Field) DF	FSS	(702)	273-2448
Reno RNO	FSS	(702)	784-5414
	WB	(702)	784-5402◆
Tonopah TPH (Nye County)	FSS	(702)	482-6421
Winnemucca	WB	(702)	623-2203
NEW HAMPSHIRE			
Concord CON	FSS	(603)	224-7474▬
Lebanon LEB (Regional)	FSS	(603)	298-8360
NEW JERSEY			
Atlantic City	WB	(609)	641-4327◆
Millville MIV	FSS	(609)	825-1173
Newark	WB	(201)	624-8118
			624-7272★
			(Via New York)
Teterboro TEB	FSS	(201)	288-9092
NEW MEXICO			
Albuquerque ABQ (Sunport/Kirtland)	FSS	(505)	243-7831▬
	WB	(505)	242-2661★
Carlsbad CNM	FSS	(505)	TU 5-2042
Clayton	WB	(505)	374-9511
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

Location and Identifier			Area Code	Telepone
NEW MEXICO (Con't.)				
Deming DMN		FSS	(505)	546-2726
Farmington FMN	DF	FSS	(505)	325-9271
Grants GNT		FSS	(505)	AT 7-3011
Hobbs HOB (Lea County)		FSS	(505)	EX 3-3222
Las Vegas LVS		FSS	(505)	GA 5-7411
Raton		WB	(505)	445-3891
				(0545-1225)
Roswell ROW		FSS	(505)	622-6780▬
Santa Fe SAF		FSS	(505)	YU 3-6581
Silver City		WB	(505)	538-9023
				(0530-2000 Mon-Fri)
Truth or Consequences TCS	DF	FSS	(505)	894-3277
Tucumcari TCC	DF	FSS	(505)	461-2900
Zuni ZUN		FSS	(505)	782-3770
NEW YORK				
Albany ALB (Albany County)		FSS	(518)	869-9225
		WB	(518)	UN 9-9173◆
Binghamton BGM (Broome County)		FSS	(607)	RA 9-6145
		WB	(607)	797-0784◆
Buffalo BUF (Greater Buffalo)		FSS	(716)	632-6083▬
		WB	(716)	632-5042★
Elmira ELM (Chemung County)		FSS	(607)	RE 9-2471
Glens Falls GFL (Warren County)		FSS	(518)	RX 3-2593
Islip ISP (Long Island MacArthur)	DF	FSS	(516)	JU 8—1061
(New York)		FSS	(914)	723-4330
		FSS	(212)	995-8657
Massena MSS	DF	FSS	(315)	RO 9-2033
New York JFK (John F. Kennedy Intl)		IFSS	(212)	995-8659
		WB	(212)	656-7474★
New York (John F. Kennedy Intl and LaGuardia)		WB	(212)	995-9151◆
Poughkeepsie POU (Dutchess County)		FSS	(914)	462-3400
Rochester ROC (Monroe County)		FSS	(716)	BE 5-5625
		WB	(716)	FA 8-7391◆
Syracuse SYR (Hancock)		FSS	(315)	GL 4-2479
		WB	(315)	454-1214◆
Utica UCA (Oneida)		FSS	(315)	RE 6-9023
Watertown ART		FSS	(315)	NE 9-3321
NORTH CAROLINA				
Asheville AVL		FSS	(704)	684-4401
		WB	(704)	684-6906◆
Cape Hatteras		WB	(919)	995-2321
Charlotte		WB	(704)	399-6000◆
Durham		WB	(919)	596-2326
Elizabeth City ECG (Coast Guard Air Station)		FSS	(919)	338-3808
Fayetteville FAY (Grannis Field)		FSS	(919)	483-7904
Greensboro		WB	(919)	299-9499◆
Hickory HKY		FSS	(704)	DA 7-8281

Location and Identifier			Area Code	Telephone
NORTH CAROLINA (Con't.)				
High Point		WB	(919)	883-1927
				(Answered in Greensboro)
New Bern EWN (Simmons-Nott)		FSS	(919)	ME 7-2080
Raleigh-Durham RDN		FSS	(919)	787-4289
		WB	(919)	787-4092◆
				596-2446
				(Durham Exchange)
				275-6341
				(Greensboro Exchange)
Rocky Mount RMT		FSS	(919)	442-7171
Wilmington ILM (New Hanover County)		FSS	(919)	762-7567
		WB	(919)	762-3240
Winston-Salem		WB	(919)	725-1731
		WB	(919)	724-2208◆
NORTH DAKOTA				
Bismarck BIS		FSS	(701)	CA 3-8790
		WB	(701)	223-0920◆
Dickinson DIK		FSS	(701)	224-2989
Fargo FAR (Hector)		FSS	(701)	AD 5-8894
		WB	(701)	232-1584◆
Grand Forks GFK (International)	DF	FSS	(701)	772-7201
Jamestown JMS		FSS	(701)	252-4350
Minot MOT (International)		FSS	(701)	833-8112
Williston		WB	(701)	572-3198◆
				(0445-2045)
OHIO				
Akron ACO		FSS	(216)	ST 4-1246/7
		WB	(216)	896-2246◆
Canton		WB	(216)	499-7933◆
Cincinnati CVG (Lunken)		FSS	(513)	321-1434
		WB	(513)	381-2300★
		WB	(513)	381-6706◆
(Greater Cincinnati)		WB	(513)	684-2129◆
		WB	(606)	283-3696◆
Cleveland CLE (Hopkins)		FSS	(216)	267-0149▬
		WB	(216)	267-3410★
Columbus CMH		FSS	(614)	237-8478▬
Dayton DAY		FSS	(513)	898-4639
		WB	(513)	898-4620◆
				(Vandalia Exchange)
Findlay FDY		FSS	(419)	GA 2-3237
Mansfield MFD		FSS	(419)	524-5323
		WB	(419)	522-7070
				(0600-1800)
Toledo TOL (Express)		FSS	(419)	242-4171
		WB	(419)	385-4921◆
Youngstown YNG		FSS	(216)	539-5121
		FSS	(216)	856-4806
		WB	(216)	545-2447◆
Zanesville ZZV		FSS	(614)	452-8611

OKLAHOMA

Location and Identifier		Area Code	Telephone
Ardmore ADM	FSS	(405)	CA 3-6772
	FSS	(405)	DU 9-5441
Gage GAG DF	FSS	(405)	923-2601
Hobart HBR	FSS	(405)	GE 6-4234
McAlester MLC DF	FSS	(918)	GA 3-4091
Oklahoma City OKC (Wiley Post)	FSS	(405)	SU 9-7452
	WB	(405)	685-4433★
	WB	(405)	685-6350◆
(Answered personally after PATWAS message.)			
Ponca City PNC	FSS	(405)	RO 5-5485
Tulsa TUL	FSS	(918)	TE 8-3316▬
	WB	(918)	835-2364★

OREGON

Location and Identifier		Area Code	Telephone
Astoria	WB	(503)	861-2722
Baker BKE	FSS	(503)	523-2961
Eugene EUG (Mahlon-Sweet)	FSS	(503)	343-7738
	WB	(503)	344-0141◆
Klamath Falls LMT (Kingsley Field)	FSS	(503)	882-4641
	WB	(503)	882-5060 (0800-1600)
Meacham	WB	(503)	Meacham 2 (0700-1500)
Medford MFR DF	FSS	(503)	779-3241
	WB	(503)	773-1525◆
North Bend OTH	FSS	(503)	756-4916
Pendleton PDT	FSS	(503)	276-1761
	WB	(503)	276-1852
Portland PDX (International)	FSS	(503)	AT 2-7293▬
	WB	(503)	282-2285★
Redmond RDM (Roberts Field) DF	FSS	(503)	548-2522
Salem	WB	(503)	363-6151
The Dalles DLS	FSS	(509)	PO 7-1187

PENNSYLVANIA

Location and Identifier		Area Code	Telephone
Allentown ABE (Bethlehem-Easton)	FSS	(215)	264-4539
	WB	(215)	264-2241
Altoona AOO (Blair)	FSS	(814)	793-3113
Bradford BFD (Bradford-McKean) DF	FSS	(814)	362-8860
DuBois DUJ	FSS	(814)	328-2231
Erie ERI (Port Erie)	FSS	(814)	833-1345
	WB	(814)	833-1991◆
Harrisburg HAR (Harrisburg-York State)	FSS	(717)	233-5987
	WB	(717)	233-7315◆

PENNSYLVANIA (Con't.)

Location and Identifier		Area Code	Telephone
Philadelphia PNE (N. Philadelphia) DF	FSS	(215)	OR 3-8020
	WB	(215)	726-7511◆
	WB	(215)	726-3503★ (0600-2300)
Philipsburg PSB (Mid-State) DF	FSS	(814)	342-0830
Pittsburgh AGC (Allegheny)	FSS	(412)	462-3707
	WB	(412)	462-5185★
	WB	(412)	462-5586★
Pittsburgh (Greater Pittsburgh)	WB	(412)	771-2855◆
Reading (General Spaatz Fld)	WB	(215)	376-4103◆ (0800-0900 Sun, 0700-noon Sat) (0700-1630 Mon-Fri)
Scranton	WB	(717)	457-5650◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)	FSS	(717)	457-9600
	WB	(717)	457-5650◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)	FSS	(717)	368-8547
	WB	(717)	368-1866◆

RHODE ISLAND

Location and Identifier		Area Code	Telephone
Providence PVD (Green)	FSS	(401)	RE 7-5300
	WB	(401)	737-0051◆

SOUTH CAROLINA

Location and Identifier		Area Code	Telephone
Anderson AND	FSS	(803)	225-7501
	FSS	(803)	225-5031◆
Charleston CHS DF	FSS	(803)	747-5293▬
	WB	(803)	747-5778★
Columbia	WB	(803)	794-4054◆
✓Crescent Beach CRE (Myrtle Beach)	FSS	(803)	448-7187 (0800-2000) (Other hrs Florence)
Florence FLO	FSS	(803)	662-8197
Greer GSP (Greenville) DF	FSS	(803)	Greenville 239-3738▬ Spartanburg 585-5470

SOUTH DAKOTA

Location and Identifier		Area Code	Telephone
Aberdeen ABR	FSS	(605)	225-5264▬
Huron HON (W. W. Howes)	FSS	(605)	352-3806▬
Pierre PIR	FSS	(605)	224-5894
Rapid City RAP DF	FSS	(605)	FI 2-2280
	WB	(605)	342-1160 (0700-2300 daily)

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

SOUTH DAKOTA (Con't)

Location and Identifier		Area Code	Telephone
Sioux Falls FSD (Joe Foss Fld)	FSS	(605)	ED 8–4841
	WB	(605)	338–1441 ◆
Watertown ATY	FSS	(605)	TU 6–4581

TENNESSEE

Location and Identifier		Area Code	Telephone
Blountville	WB	(615)	323–8752 ◆
Bristol	WB	(615)	323–8242 ◆
Chattanooga	WB	(615)	892–3747 ◆
Crossville CSV (Crossville-Cumberland) DF	FSS	(615)	484–6711
Dyersburg DYR	FSS	(901)	285–4842 (0600–2200)
Jackson JKS (McKellar)	FSS	(901)	427–0611
Johnson City	WB	(615)	323–8242
Kingsport	WB	(615)	323–8242 ◆
Knoxville TYS (McGhee-Tyson)	FSS	(615)	577–0795
	WB	(615)	577–4805 ◆
(from Maryville)		(615)	982–3682
Maryville (See Knoxville)			
Memphis MEM DF	FSS	(901)	398–9260/9
	WB	(901)	398–2347 ★
Nashville BNA (Metropolitan)	FSS	(615)	254–6552/3
	WB	(615)	255–8732 ★
	WB	(615)	256–4468 ◆
Tri City TRI	FSS	(615)	323–7242

TEXAS

Location and Identifier		Area Code	Telephone
Abilene ABI	FSS	(915)	OR 4–6915 ▬
Alice ALI DF	FSS	(512)	MO 4–4291
Amarillo AMA (Air Terminal)	FSS	(806)	349–1608 ▬
Austin AUS (Robert Mueller)	FSS	(512)	GR 8—6695 ▬
Beaumont BPT (Jefferson County)	FSS	(713)	RA 2–0288
	WB	(713)	722–7011 ◆
Brownsville BRO (Rio Grande Valley International)	FSS	(512)	LI 6–6421
	WB	(512)	542–8231 ◆
Childress CDS	FSS	(817)	WE 7–3892
College Station CLL (Easterwood)	FSS	(713)	VI 6–8784/5
Corpus Christi	WB	(512)	883–3008 ◆
Cotulla COT	FSS	(512)	TR 9–2417
Dalhart DHT	FSS	(806)	CH 9–2006
Dallas Love Field DAL	FSS	(214)	FL 2–8491 ▬
	WB	(214)	FL 7–4343 ★
Del Rio	WB	(512)	775–2115
El Paso ELP (International)	FSS	(915)	778–6449
	FSS	(915)	778–6448 ▬
	WB	(915)	778–4487 ★

TEXAS (Con't.)

Location and Identifier		Area Code	Telephone
Fort Worth FTW (Meacham)	FSS	(817)	MA 4–8471
	WB	(817)	283–1571 ★
	WB	(817)	283–3961 ◆
Galveston GLS (Scholes)	FSS	(713)	SH 4–3255
	WB	(713)	763–5670
Gregg County GGG (Longview)	FSS	(214)	MI 3–2612
Houston HOU (International)	FSS	(713)	MI 5–6693 ▬
	WB	(713)	644–1507 ★
√Junction JCT (Kimble Co.)	FSS	(915)	HI 6–3214 (0600–1800) (Other hrs San Antonio)
Lubbock LBB	FSS	(806)	PO 2–5802
	WB	(806)	762–2380 ◆
Lufkin LFK (Angelena County) DF	FSS	(713)	NE 4–3544
McAllen MFE (Miller Field) DF	FSS	(512)	MU 2–2878/9
Midland MAF (Air Terminal) DF	FSS	(915)	563–2611 ▬
Mineral Wells MWL	FSS	(817)	FA 5–5922
Palacios PSX	FSS	(713)	824–2218
Port Arthur	WB	(713)	722–7011 ◆
San Angelo SJT (Mathis)	FSS	(915)	655–5638
	WB	(915)	655–9780 ◆
San Antonio SAN (International)	FSS	(512)	TA6–9575 ▬
Tyler TYR (Pounds)	FSS	(214)	LY 4–6301
Victoria	WB	(512)	445–1276 ◆
Waco ACT	FSS	(817)	PL 2–4811
	WB	(817)	754–1582 ◆
Wichita Falls SPS (Sheppard AFB/Wichita Falls Air Trml) DF	FSS	(817)	322–1302 ▬
Wink INK DF	FSS	(915)	LA 7–3351

UTAH

Location and Identifier		Area Code	Telephone
Bryce Canyon BCE	FSS	(801)	834–5311
Cedar City CDC DF	FSS	(801)	586–9131
√Delta DTA	FSS	(801)	4741 (0600–1800) (Other hrs Salt Lake City)
Milford	WB	(801)	387–2361 (0900–1700)
Salt Lake City SLC (Municipal No. 1) DF	FSS	(801)	524–5183 ▬
	FSS	(801)	364–5571 ★
Wendover	WB	(801)	665–2382 (0430–2015)

VERMONT

Location and Identifier		Area Code	Telephone
Burlington	WB	(802)	862–2475 (0600–2300)
Montpelier MPV (Barre–Montpelier)	FSS	(802)	223–2376
	FSS	(802)	878–3393 (from Burlington)

VIRGINIA

Location and Identifier			Area Code	Telephone
Blackstone BKT		FSS	(703)	292–3826 (0600–2200)
Bristol		WB	(615)	323–8242◆
Chantilly (Dulles)		WB	(703)	661–8526◆
Charlottesville CHO (Charlottesville/ Albermarle)		FSS	(703)	973–3909
Danville DAN		FSS	(703)	SW 3–1163
Lynchburg (Muni-Preston Glenn		WB	(703)	239–0345◆ (0600–1930)
Newport News PHF (Patrick Henry)		FSS	(703)	877–0200
Norfolk		FSS	(703)	627–7084▬
Richmond RIC (Byrd Flying Field)		FSS	(703)	737–5249▬
Roanoke ROA (Woodrum)		FSS	(703)	362–1668▬

WASHINGTON

Location and Identifier			Area Code	Telephone
Bellingham BLI	DF	FSS	(206)	734–6400
Ephrata EPH		FSS	(509)	SK 4–2361
Hoquiam HQM (Bowerman)		FSS	(206)	GE 9–3432
Olympia		WB	(206)	357–8386
Seattle SEA (Boeing)		FSS	(206)	RO 2–4000
		WB	(206)	682–3655★
Spokane SFF (Felts)		FSS	(509)	KE 5–2906
		WB	(509)	624–5674◆
Toledo TDO (Toledo-Winlock)		FSS	(206)	864–2371 (0500–2100)
Walla Walla ALW (City-County)		FSS	(509)	JA 9–1413
Wenatchee EAT (Pangborn)		FSS	(509)	TU 4–5654
Yakima YKM		FSS	(509)	GL 3–9862
		WB	(509)	GL 7–4371

WEST VIRGINIA

Location and Identifier			Area Code	Telephone
Beckley		WB	(304)	252–3171◆
Bluefield BLF (Mercer County)		FSS	(304)	325–6521
Charleston CRW (Kanawha)		FSS	(304)	342–1371▬
Elkins EKN (Randolph)		FSS	(304)	636–0810
		WB	(304)	636–1246◆
Huntington HTS (Tri-State)		FSS	(304)	453–3951▬
Martinsburg MRB		FSS	(304)	AM 3–9353

WEST VIRGINIA (Con't.)

Location and Identifier			Area Codes	Telephone
Morgantown MGW	DF	FSS	(304)	292–3632
Parkersburg PKB (Wood County)		FSS	(304)	485–6421
		WB	(304)	422–3661 (0700–1400 Mon-Fri) (0700–1200 Sat)
Wheeling HLG (Ohio County)		FSS	(304)	CR 7–1252

WISCONSIN

Location and Identifier			Area Codes	Telephone
Eau Clare EAU		FSS	(715)	835–9642
Green Bay GRB (Austin Straubel)	DF	FSS	(414)	494–7417▬
La Crosse LSE		FSS	(608)	785–1225▬
Lone Rock LNR (Tri-County)		FSS	(608)	583–2661
Madison MSN (Traux)		FSS	(608)	244–1033
		WB	(608)	249–6644◆
Milwaukee MKE (General Mitchell)		FSS	(414)	481–4414
		FSS	(414)	744–5860▬
		WB	(414)	744–7810★
Wausau AUW		FSS	(715)	845–7396

WYOMING

Location and Identifier			Area Codes	Telephone
Casper CPR (Air Terminal)	DF	FSS	(307)	235–1555▬
Cheyenne CYS		FSS	(307)	638–9711
		WB	(307)	638–3642◆
Lander		WB	(307)	332–2718
Laramie LAR (General Brees Field)		FSS	(307)	745–4010
Rawlins RWL		FSS	(307)	324–3241
Rock Springs RKS	DF	FSS	(307)	362–2121
Sheridan SHR (Sheridan County)		FSS	(307)	674–7426▬
Worland WRL	DF	FSS	(307)	347–4122

PUERTO RICO

Location and Identifier			Area Codes	Telephone
San Juan SJU (Puerto Rico Intl)		IFSS		791–1780
		WB		791–0320

VIRGIN ISLANDS

Location and Identifier			Area Codes	Telephone
St. Croix STT (Christiansted, Alexander Hamilton)		FSS		773–1425

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

> **NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.**

Indicate Appropriate Part. Date ______________________________

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3–A, Notices to Airmen

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AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE 1966–67

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Part

Effective Date	Part 1	Part 2	Part 3	Part 3A
September 1				August 22
September 15			August 29	August 29
September 29				September 19
October 13			September 26	September 26
October 27				October 17
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12
January 5			December 16	December 16
January 19				January 9
February 2			January 16	January 16
February 15	January 20			
February 16				February 6
March 2			February 10	February 10
March 16				March 6
March 30			March 13	March 13
April 13				April 3
April 27			April 10	April 10
May 11				May 1

Editorial Staff Telephone Number, Area Code 202—WO 2–4063.

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930–1730 Sun. Up to 12,500′.

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Gadsden:1000–1700 Weekends. Up to 12,500′.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500′.

ARIZONA

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800–1700. Up to 12,500′.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000′.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Marked Tree: 2 mi S. Weekends SR–SS. Up to 12,500′.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200–SS. Up to 12,500′.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500′.

California City Arpt: Weekends and holidays. Up to 15,000′ MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000′ MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800′–15,000′, opening at absolute alts of 2000′–2500′. Center of drop zone lctd at 36°38′N, 121°46′W in Restricted Area R–2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000′.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000′.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500′ MSL.

Imperial Beach: Weekends. 0800–1200. Up to 1500′.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld. 7 days a wk. SR–SS.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Los Banos Arpt: 3.5 mi SE; edge of V–113. Suns SR–SS. Up to 10,000′.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000′ MSL.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000′.

Sonoma Valley: Weekends (occansionally during the wk.) 0800–SS. Up to 15,000′.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Daylgt hrs. Up to 8,000′.

Boulder: 3 mi NE of arpt. Wk-ends and holidays. 0800–SS. Up to 13,000′ AGL.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 18,000′ MSL.

Denver, C&S Arpt: 2.5 mi SE of Cherry Creek Dam. 0800–SS weekends and holidays. Up to 13,200′ MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays. Dalgt hrs. Up to 13,000′.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Loveland: 5 mi NE. Wk-ends and holidays. Up to 18,000′ MSL.

CONNECTICUT

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200–SS. Up to 12,500′.

Harwinton: 0800–dusk. Weekends. Up to 7200′.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500'. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000'.

FLORIDA

Clewiston, Airglades Arpt: Up to 15,000'. Daily SR–SS. Occasional ngts.

Deland Mun Arpt: Up to 7,000' daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500'.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

Homestead AFB: Occasionally. Up to 1,000' MSL.

Howey Arpt: Weekends. Up to 10,000'.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800–1600. Up to 15,000'. (2) 2 mi NW of Herlong Fld. Weekends. 0800–1600. Up to 7,500'.

Kissimmee Arpt: Daily and weekends. Up to 12,000'.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500'.

Ovita Arpt: Wk-ends. 0700–SS. Up to 12,000' MSL.

Palatka: Suns. 0800–1600. Up to 7500'.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500'.

Umatilla Arpt: 32 NM 325° rad. Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500'.

Zephyrhills Ahpt: Sundays, occasionally weekdays. Up to 12,500'.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500' AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500'.

Cohutta: 10 mi N Dalton. Weekends. 1200–1900. Up to 13,500'.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500'.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000'.

Fitzgerald: Daily, mostly on Sats and Suns. 0900–1700. Up to 12,500'.

Fort Benning: Daily. 0600–2000. Up to 18,000'.

Ft. Steward: Daily, Sats and Suns. Up to 15,000'.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935' MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000'.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500' AGL.

Waycross: Weekends. 1000–1600. Up to 12,500'.

IDAHO

Boise, Floating Feather Arpt: Wk-days. Hvy on wk-ends 0700–1900. Up to 12,000' MSL.

Weiser: 1500Z–SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000'.

Antioch: 4 mi E. Wk-ends and holidays.

Belleville, Flying Dutchman: 1 mi SW city. Wk-ends SR–SS. Up to 12,500' MSL.

Chicago, Hammond Arpt: Weekends. Up to 12,500'.

Clinton: ½ mi E. Weekends. 1200–SS. Up to 10,000'.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500' MSL.

Hebron Arpt: Wed, wk-ends, and holidays. Up to 7500' MSL.

Hillsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500'.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000'.

Pekin: 3 mi S. Weekends. 1200–SS. Up to 15,000'.

Sanger Arpt: Wk-ends SR–SS. Up to 12,500' MSL.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500'.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500'.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500'.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500'.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000'.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000'.

Des Moines: 3 mi radius of Camp Dodge. SR–SS wk-ends. 1500–SS wk-days. Up to 12,500' MSL.

Mechanicsville: 5S, 2 mi radius. Weekends and occasionally wk days SR–SS. Up to 15,000'.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500'.

Northwood: Weekends. 0900–SS. Up to 13,000'.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500'.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000'.

KANSAS

Concordia: 3 mi SE. SR–SS wk-ends. Up to 10,500' MSL.

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000'.

Fort Leavenworth Military Reservation: Weekends and holidays Occasionally weekdays. Up to 12,500'.

Fort Riley Military Reservation: Sky diving operations to 10,000', weekends and holidays.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500'.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000'. Occasionally ngts.

Manhattan: 2 mi SE of Tuttle Creek Dam. SR–SS wk-ends and holidays. Up to 12,500' MSL.

Oxford: Weekends. 1300–1900. Up to 13,000'.

Topeka, Skyranch Arpt: SR–SS wk-ends and holidays, occasional wkdays. Up to 12,500' MSL.

KENTUCKY

Ashland, Boyd Co.: Wed and wkends.

Fort Knox: 3 mi SW of Godman AAF weekends and holidays, 1300–1700. Up to 10,000'.

LOUISIANA

Abbeville: Weekends. 0900–SS. Up to 17,000'.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500'.

Bodcaw: SR–SS wk-ends. Up to 13,000' MSL.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900–SS. Up to 12,000'.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000'.

Fort Polk, Polk AAF: 2 nmi radius.

Hammond: SR-SS seven days a wk. Up to 15,000'.
Mansfield Arpt: SR-SS wk-ends. Up to 13,000' MSL.
Pollock Arpt: SR-SS wk-ends; 1200-SS wkdays. Up to 13,000' MSL.
Thibodaux: 1 mi E on Hwy 1. Weekends. 0900-SS. Up to 13,000'. 20 mis N. Weekends. SR-SS. Up to 12,500'.
Youngsville: Weekends. 0900-SS. Up to 13,000'.

MAINE

Augusta State Arpt: Sundays, 8 mi SE.
Sanford: Unscheduled jumps from 2700' to 12,500'.
Wiscasset Arpt: Weekends. Up to 12,000'.

MARYLAND

Cumberland Mun: Up to 12,000'.
Edgewood: 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000'.
Eldersburg, Robert E. Lee Arpt: 8 mi S EMI VOR. Up to 12,500' MSL. Most activity weekends.
Elkton, Lovett Arpt: Weekends. Up to 3000'.
Frederick Mun: Glider activities wkends and holidays.
Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000'.
Nottingham: 2 mi out on VOR radial 081. Weekends and Weds to 2200. Up to 20,000'.
Patuxent River NAS: On V-213. 2200-2400 weekdays; 1500-2100Z Sat, Sun and holidays. Up to 12,500'.
Stevensville, Carroll's Arpt: Weekends. Up to 12,500'.

MASSACHUSETTS

Maynard: 1 mi SW within 1 mi radius of lat 42°25'N, 71°20'W. Airdrop of personnel and eqpmt conducted daily 1300Z-0200Z at Natrick Labs Annex. Up to 2500'.
Montague, Turners Falls Arpt: Day time only. Up to 15,000'.
Orange Muni Arpt: Day time only. Up to 15,000'.
Pepperell Arpt: Day time only. Up to 15,000'.
Tauton Muni Arpt: Day time only. Up to 15,000'.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500'.
E. Tawas, Iosco Arpt: Up to 13,500'.
Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500'.
Gaylord: Weekends. Dawn-Dusk. Up to 12,500'.
Grand Rapids (So. Kent Fld): Weekends. 0900-dusk. Up to 12,000'.
Gregory, Richmond Fld: Weekends.
Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.
Lake City: 6mi E, 1 N. Weekends. SR-SS. Up to 12,500'.
LaSalle: 5 mi S of Custer Arpt. 0900-SS. Up to 12,500'.
Marksfield, Lawton: Sat and Sun. 0900-SS. Up to 15,000'.
Marshall, Brooks Fld: Weekends. Up to 13,000'.
Midland: Sat, Sun, Wed. SR-SS. Up to 12,500'.
Monroe: 5 mi S. Weekends. Up to 15,500'.
Nunica: 1 mi SE. Up to 15.000'.
Saginaw Arpt: Weekends. Up to 13,000'.
Tecumseh Arpt: Daily. Up to 17,500'.
Traverse City: Weekends. SR-SS. Up to 12,500'.

MINNESOTA

Aitkin Mun Arpt: Weekends.
Monticello, Flynn Arpt: Wk-end. Up to 12,000' AGL.
Rosemount: 3 mi SE. Up to 2500'.
Stanton, Carleton Arpt: Wed 1600-SS during June; July and Aug wk-ends 0800-SS. Up to 14,500' AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000'.
Jackson: 10 mi SW. 0900-SS. Weekends. Up to 12,500'.
Louisville: 5 mi S. Weekends. Up to 12,500'.
Lucedale, Farmco Arpt: Weekends and holidays SR-SS. Up to 12,500' MSL.
Ocean Springs, Gulfpark Arpt: SR-SS Sats, Suns, holidays and occasional wk days. Up to 12,500' AGL.

MISSOURI

●**Columbia Muni Arpt:** Weekends and holidays. Up to 12,000' MSL.
Houston Meml Arpt: Weekends. Up to 12,000' MSL.
St. Louis, Lobmaster Arpt: Weekends and holidays. Up to 11,000'.
Valleroy: Weekends. 1200-1800. Up to 8000'.
Vichy, Rolla Natl Arpt: Daily SR-SS. Up to 12,500'.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800-dusk. Up to 10,000'.
Glendive: Sat and Sun, occasionally wk days.
Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000'.
●**Kalispell:** Weekdays 1700-dark, weekends SR-SS. Up to 13,000'.
Laurel: Sat, Sun. 0900-1800. Up to 10,000'.
Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000' MSL—Miller Creek Area lat 46°47' to 46°49' long 114°01' to 114°05'. U.S. Forest Service Practice Areas . . . altitudes to 1500' AGL small areas vcnty of Lavelle Creek lat 47°00' long 114°03'; Mill Creek lat 47°02' long 114°12'; Sherman Creek lat 46°54' long 114°12'; O'Brien Creek lat 46°52', long 114°08'; Hayes Creek lat 46°49' long 114°06'; Ninemile Creek lat 47°05' long 114°23'; Fournier Creek lat 47°01' long 114°11'; Miller Creek lat 46°43' long 113°54'; Wild Horse Ridge lat 46°54' long 114°19'.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500' AGL.
Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500' AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500' MSL.
Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500'.
Silver Springs Arpt: Daily SR-SS. Up to 12,500' MSL.

NEW HAMPSHIRE

Hollis: 3 mi SW Boire Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600'.
Hooksett: Tues, Sat Sun, and holidays. 0900-2100. Up to 12,500'.
Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900-dusk. Up to 5,200'.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000'.
Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500'.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

Manville, Decker Arpt: ½ mi SW rnwy. Dawn to dusk. Up to 15,000′.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500′.

NEW MEXICO

•**Alamogordo Muni Arpt:** Fri, Sat, Sun and holidays SR–SS. Up to 12,500′ AGL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000′.

Belen: 3½ mi SE. Suns SR–SS. Up to 12,500′ AGL.

Roswell Arpt: 8 mi W. Wk-ends 0700–1400. Up to 7,500′ MSL.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.

Gardiner Airfield: 1 mi radius wk-ends and holidays SR–SS. Up to 15,000′ MSL.

Greene Arpt: Within 5 mi radius. Daily 1100Z–SS. Up to 12,500′.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500′.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MSL.

Randolph Arpt: Daily. Up to 15,000′.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000′.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500′ MSL

Wallkill (Galesville): Every day of wk. 1000–2130. Up to 14,000′.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500′.

Charlotte, Brackenborough Arpt: 5 mi N. Wed and Fri 1500–SS, Sat and Sun 1200–SS. Up to 14,000′.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900–1630. Up to 13,000′.

New River MCAF: On V157 1100–0300 daily from 23,500′.

Oak Grove OLF: Sat, Sun and holidays from 0800-1830. Up to 15,000′.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000′.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12,000′.

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

Ada Arpt: Wk-ends SR–SS. Up to 12,500′ AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000′.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500′.

Brunswick Arpt: 1300–0100Z daily. Up to 8,500′ MSL.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000′.

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000′.

Darbydale: Daily 1000–SS. Up to 12,500′ AGL.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500′ AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.

Galloway, Columbus Arpk: Wkends, holidays dalgt hrs and Wed 1600–SS.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.

Lenox Arpt: Sat and Sun. 0900 2100 EDST. Up to 12,500′.

Lima: Weekends. 1200–SS. Up to 12,500′.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000′ MSL.

•**Oberlin:** Daily. 1600 dark. Up to 12,500′.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500′ AGL.

Piqua Arpt: Up to 12,000′. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500′.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500′.

South Dayton Arpt: Up to 18,000′. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.

Valley City: 3.5 mi W. Wed 2200–0100Z. Up to 12,500′ AGL.

Van Wert: Weekends 1200–SS. Up to 12,500′ AGL.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500′.

Frederick: Weekend. Dawn-dusk. Up to 10,000′.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Albany: 1½ mi NE of arpt. Weekends 1000–SS. Up to 13,000′ MSL.

Ashland Arpt: Dalgt. wk ends, holidays and evenings. Up to 9,000′.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 1 mi N and 3 mi SE. Periodically June thru Sept. From 2000′ AGL.

Creswell: 2 mi SW. Thurs, Fri, Sat, 1600–2030. Up to 15,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR–SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR–SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

Portland: ½ mi S and 2 mi E of Scholl Arpt, Orchards, Wash.

Portland: 4 mi N Aurora Flight Strip, Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

Coudersport, Cherry Springs Arpt: Up to 10,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

Erie: 12 mi E. Wk-ends and holidays. SR–SS. Up to 12,500′ AGL.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 15,000′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Maytown, Donegal Arpt: 2 mi NE. Weekend SR–SS. Up to 15,000′ MSL.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

New Hanover Arpt: Most activities weekends. Up to 15,000′ MSL.

Quakertown, Upper Bucks Co. Arpt: 7 mi E. Suns 0900–SS. Up to 12,500′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

Darlington Co. Arpt: Thurs, Sat and Sun SR–SS. Up to 15,000′ MSL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR-SS. Up to 12,500′.

Pierre: 4 mi NW arpt. Wk-ends SR–SS. Up to 10,000′ MSL.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

Pierre: 4 mi NW arpt. Wk-ends SR-SS. Up to 10,000′ MSL.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens, McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Alvarado: 1 mi N of City. Wkdays 1200–SS. Wk-ends SR–SS. Up to 15,000′ AGL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Bonham Arpt: Weekends SR–SS. Up to 12,500′.

Cedar Hill: Weekends SR–SS. Up to 12,500′.

●Clear Springs Arpt: Suns and holidays, SR–SS. Up to 14,000′ AGL.

Commerce Arpt: Weekdays only SR–SS. Up to 10,000′.

Dickenson, T & C Drop Zone Arpt: 1 mi radius. Up to 12,500′

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AAF. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampassas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

Littlefield Mun: 2200Z–SS daily. SR–SS Sat, Sun, holidays. Up to 12,000′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

●San Antonio, Northeast Arpt: Suns and holidays SR–SS. Up to 12,500′ AGL.

●San Marcos Arpt: Sat, Sun, occasional weekdays SR–SS. Up to 12,500′ AGL.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

Green River: 6 mi NNE of arpt. Daily SR–SS. Up to 10,000′ MSL.

Hill AFB: Two times per mo. during daigt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Forest, New London Arpt: Daily. Up to 11,000′.

Hanover Arpk: 12 nmi N of Richmond VOR on radial 352. Daily and occasionally ngts. Up to 13,000′ MSL.

Hopewell Arpt: Weekends. Up to 9000′.

Manassas: On the Herndon 195 radial 15 mi. Weekends and holidays. Occasional ngt jumping. Up to 12,500′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000′.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Muni Arpt: Cont. Up to 12,000′.

Target Fld: 2 mi NNE of Manassas. Sat, Sun, and holidays SR–SS. Up to 13,000′ MSL.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

Bellingham Arpt: 6NE. 7days per wk. Up to 12,500′ AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000′ MSL.

Coupeville: 1 mi S. Weekends and holidays, occasional weekday afternoons. Up to 12,500′ AGL.

Issaquah-Seattle Skyport: Daily SR–SS. Up to 24,000′ AGL.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 8 mi N SR to 1 hr after SS. Up to 12,000′ AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500′.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

Antigo Arpt: 2 mi S. Weekends SR–SS. Up to 12,500′ AGL.

Baraboo, Bell Arpt: Daily 1745Z–1815. Up to 7800′ MSL.

Lake Delton, Dells Arpt: ¾ mi N. McBoyle. Daily 1900–1920Z, 2300–2320Z, 0100–0120Z. Up to 7800′ MSL.

Lake Geneva Wal-Co. Farms Arpt: Wed, Sat and Sun SR—one hr after SS. Up to 15,000′.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500′ MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500′ AGL.

Oskkosh: 8 mi NW. Weekdays 1700–1900. Weekends 1000–2100. Up to 13,000′ AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000′.

WYOMING

Laramie: 2 mi S. Weekends SR–SS. Up to 20,000′ MSL.

Sheridan Muni Arpt: Weekends and holidays SR–SS. Up to 16,500′ MSL.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston	V2 GDM (L-25)
Kennedy	V91 RVH (L25)
LaGuardia	V91 V487 Stamford (L25)
Newark	V489 Budd Lake (L25)

ALBUQUERQUE

Denver	Aden V19W SAF V83 PUB V19E IOC (L-4, 6)
Kansas City	Aden V19W SAF V19 LVS V190 DHT V234 V280 Farley (L-6)
Los Angeles	GNT V12 EED V208 TNP V264S ONT. (L-4, 3)
Phoenix	GNT V190N SJN V190 Lake. (L-4)

ATLANTA METRO AREA

Birmingham	Chattahoochee V18 ANB (L20, 14)
Charlotte	Conyers V66 FML (L-20)
Cincinnati	Crabapple V97 Dry Ridge (L-20, 22)
Chicago	Crabapple V51 CGT (L-14, 20, 21, 23)
Dallas	Chattahoochee V18 MLU V94 V477E Forney (L20, 14, 18, 17, 13)
Dulles	Conyers V66 FML V454 LVL V155 GVE V39E Brandy (L20-22)
Houston	Chattahoochee V18 MEI V194 MCB V222 LCH V222N Monument (L20, 14, 18)
Kennedy	Conyers V66 FML V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
Jacksonville	Griffin V243 AYS V243W Callahan (L20, 18)
La Guardia	Conyers V66 FML V454 LVL V157 RIC V20 V213 RBV (L-20, 22, 24)
Memphis	Chattahoochee V18 BHM V176N HL1 (L20, 14)
Miami	Brooks V97 ABY V159 V159W CTY V7 LAL V157 Cypress (L20, 18, 19)
Newark	Conyers V66 FML V454 V157 V20 V213 V29 V433 Rocky Hill (L-20, 22, 24)
Orlando	Griffin V243 AYS V157 OCF V159W Clermont (L20, 18, 19)
Pittsburgh	Crabapple V97 TYS V115 PKB V119 HLG (L-20. 22, 24)
Tampa	Brooks V97 ABY V159 V159W CTY V7 Homo V35E Hazel (L20, 18, 19)
Washington	Conyers V66 FML V454 LVL V157 Ironsides (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta	BHM V18S Palmetto (L14, 20)
New Orleans	TCL V18 MEI V455 HBG V455W Madison (L14, 18 17)
Pittsburgh	GAD V115E CHA V115 PKB V119 HLG (L-14, 22, 24)

BOSTON METRO AREA

Albany	V14 Melrose (L-25)
Buffalo	V14 Bellona V31 ROC V142 Grant (L-25)
Cleveland	V14 ALB V72 Hadley V232 Mentor (L-25, L-24)
Kennedy	PUT V475E V16 RVH (L25)

BOSTON METRO AREA—Continued

LaGuardia	Millbury V3 V445 Stamford (L25)
Newark	Millbury V3 V292 Budd Lake (L25, 24)
Philadelphia	Millbury V3 Warrington (L25, 24)
Rochester	V14 Bellona V31 Fishers (L-25)
Washington	PUT V308 North Barch (L25, 24)
Windsor Locks	PUT PUT 295 rad Meadow, (L25)

BUFFALO

Boston	GEE V14 GDM (L-12, L-25)
Cleveland	Langford V464 DKK V14 Mentor (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 QG (L-12, 23)
Kennedy	V252 BGM V270 V34 CMK BDR RVH (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 Liberty (L-12, 25)
Midway	V84 LAN V218 Surf (L-12, 23)
Newark	V252 GEE V147 TOH V226 Budd Lake (L12-25)
O'Hare	V84 OBK (L12, 23)
Philadelphia	V33 PSB V238 ESR (L-12, 24)
Pittsburgh	V115 EWC (L-12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn DCA (L12-24)

CHARLESTON, W. VA.

Cincinnati	V128 California (L22)
Cleveland	V115 PKB V59 V427 V40 Sharon (L22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 HLG (L-22, 24)
Washington	V4S EKN V4 HRN (L22, 24)

CHARLOTTE

Atlanta	CLT V194 OCR (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 RBV (L-20, 22, 24)
Miami	FML V37 ALD V157 Cypress (L20, 18, 19)
Washington	New London V454 LVL V157 Ironsides (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	EON V171 SCJ V243 Kennesaw (L23, 21, 14, 20)
Denver	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	Musky V100 ELX V218 Troy (L23, 12)
Dulles	EON V144 Blue Ridge (L23, 24)
Kennedy	V6 SEG V170 V276 RBV (L23, 24)
Indianapolis	EON V128 (L-23)
La Guardia	V6 V433 Liberty (L-23, 24)
Los Angeles	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	Big Run V173 CAP V9 Kerrville (L-23, 21, 14)
Miami	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 LAL V157 Cypress (L23, 21, 14, 20, 18, 19)
Minneapolis	Malta V218 RST V82 FGT (L23, 11, 10)
Newark	V6 SEG V30 Rocky Hill (L-23, 24)
Philadelphia	V6 PSB V238 ESR (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 EWC (L23, 24)
San Francisco	Malta V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
St. Louis	Big Run V191 V14 Staunton (L23, 21)
Tampa	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 Homo V35E Hazel (L23, 21, 14, 20, 18, 19)
Tulsa	API V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	EON V144 ESL V4 HRN (L23, 24)

From Midway only

Cleveland	Crib V6 SKY V232 Vermillion (L23)
Des Moines	API V8 CVA V233 CID V172 TNU (L23-11)
Kansas City	API V10 Kearney (L-23, 11, 21)
Metro Wayne Co.	Crib V10 Milan (L23)
Omaha	API V8 CVA V233 CID V172 EOL (L23, 11)
Willow Run	Crib V10 Milan (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 Vermillion (L-23)
Des Moines	V172 TNU (L-23, 11)
Kansas City	V84 BDF V10 Kearney (L-23, 11, 21)
Metro Wayne Co.	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Omaha	V172 EOL (L23, 11)
Willow Run	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Windsor	V100 V218 Troy (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 OCR (L-21, 22, 20)
Charleston W. Va.	V128S YRK V128 (L22)
Chicago	V97 CGT (L-21, 23)
Detroit (City)	V275 SVM (L21, 23)
Indianapolis	V97 (L-21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 Liberty (L22-24)
Louisville	V47 ABB V51 (L-21)
Metro Wayne Co.	V275 Milan(L21, 23)
Miami	V47 ABB V51 Crabapple V97 ABY V159 V159W CTY V7 LAL V157 Cypress (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 Rocky Hill (L22-24)
Pittsburgh	V128S YRK V44 PKB V119 HLG (L22-24)
St. Louis	V47 ABB V44 Mounds (L21)
Willow Run	V275 Milan (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 GDM (L-23, 24, 12, 25)
Buffalo	V14N Crystal Beach (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 Niles (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	V42E QG V90 (L-23)
Kennedy	ACO V30 SEG V170 V276 RBV (L24)
Indianapolis	CLE V14 (L23)
La Guardia	ACO V30 CIP V6 Amboy V433 Liberty (L-24)
Metro Wayne Co.	V42E V103 Lasalle (L23)
Miami	V443 V133 V35 V185 Dover V157 Cypress (L23 22, 20, 18, 19)
Newark	ACO V30 Rocky Hill (L-24)
Philadelphia	ACO V30 PSB V238 ESR (L-24)
Pittsburgh	ACO V297 EWC (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	ACO V103 IRL V37 Millsboro V92 FRR V4 HRN (L-24)
Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L-23, 24, 22)
Indianapolis	Grindell V210 (L-23)
LaGuardia	APE V12 V106 V6 V433 Liberty (L23, 24)
Pittsburgh	APE V12 HLG (L-23, 24)
St. Louis	V12N V210 Staunton (L23, 21)
Toledo	V38 FDY V47 (L-23)
Washington	APE V144 ESL V4 HRN (L-23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	Lakeside V114 Claude (L-13)
Atlanta	DAL V278 V18S Palmetto (L13, 14, 20)
Dulles	DAL V278 V16 BNA V140 MOL V251 V174 Blue Ridge (L13-14-21-22)
El Paso	Joshua V94 INK V16 RIO (L-13, 4)
Houston	Trinity Fork V477 LOA V477W Fairbanks (L-13, 17)
Los Angeles	Joshua V94 INK V16 SFL V94 GBN V461 BXK V16 ONT (L-13, 4, 3)
Memphis	DAL V278 TXK V16 Walls (L13-L14)
Midway	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
New Orleans	DAL V114 French (L-13, 17)
O'Hare	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
San Antonio	Red Oak V15E ACT V17 AUS V17W Bergheim (L-13, 15)
Tulsa	DAL V15 Gunter PNX MLC V131 OKM Haskell; or DAL V15 OKM Haskell (L-13, 6)
Washington	DAL V278 V16 BNA V140 MOL V16N GVE V16 Ironsides (L-13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 CGT (L-23)
Cleveland	V275 V47W FDY V8 MFD V246 Sharon (L23)
Detroit/City	V275 SVM (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V275 Milan (L23)
Willow Run	V275 Milan (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N Langston (L23-21-6)
Washington	V12 APE V144 ESL V4 HRN (L-23, 24)

DENVER METRO AREA

Chicago	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT (L-8, 11, 23)
Kennedy	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX RBV (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 RBV (L12, 24)
From City and Windsor only	
Newark	V221 ERI V170 SEG V30 Rocky Hill (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 ESR (L-12, 24)
Ft. Wayne	SVM V170 Leslie V45 JXN V221 (L-23)
Midway	SVM V170 V84 V7E V116 (L-23)
Milwaukee	SVM V170 PMM V30S Pike (L-12, 23)
O'Hare	SVM V170 V84 OBK (L-23)
From Metro or Willow Run only	
Buffalo	V221 V90 V14N Crystal Beach (L-12)
Cleveland	Stripe V297 Vermillion (L23)
Ft. Wayne	Dexter V221 (L-23)
Midway	Pinckney V170 V84 V7E V116 (L-12, 23)
Milwaukee	Dexter V116 JXN V45 Leslie V170 PMM V30S Pike (L-12, 23)
O'Hare	Pinckney V170 V84 OBK (L-12, 23)
Pittsburgh	Stripe V133 Bay V6 V42 ACO V297 EWC (L23, 24)
Rochester	V221 V90 V14 V2 (L-12)
Washington	Stripe V133 ZZV V144 ESL V4 HRN (L23, 24)

EL PASO

Dallas	HUP V66 MAF V16S BGS V16 ABI V66 Denton V114 Lakeside (L-4, 13)
Los Angeles	EWM V94 GBN V461 BXK V16 ONT (L-4, 3)
San Antonio	HUP V198 Boerne (L-4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 PRR (L-19)

HOUSTON METRO AREA

Atlanta	LaPorte V20S LCH V20 LFT V70 MVC V20 MGM V20N Sharps (L17, 18, 14, 20)
Dallas	Gulf Coast V477E Forney (L-17, 13)
New Orleans	LaPorte V20S LCH V20 Turtle (L-17)
San Antonio	Andrau V222 Hunter (L-17, 15)

INDIANAPOLIS

Detroit	V11 SVM (L-23)
Evansville	V11W SCJ V11E (L-21)
Kennedy	V50 DAY V12 V106 V276 RBV (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V1 V10 Milan (L23)
Midway	V97W V97 CGT (L-23)
Newark	V50 DAY V12 V106 V30 Rocky Hill (L23, 24)
Pittsburgh	V50 DAY V12 HLG (L-23, 24)
St. Louis	V14 Staunton (L21)
Willow Run	V11 V10 Milan (L23)

JACKSONVILLE

Atlanta	Kings V5E DBN V5 McDonough (L18, 20)
Dulles	Clinch V3E SAV V3 RDU V155 GVE V39E Brandy (L18-20-22)
Kennedy	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 BGT (L-18, 20, 22, 24)
LaGuardia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 RBV (L-18, 20, 22, 24)
Miami	Blue Jacket V267 New River (L-19)
Newark	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 Rocky Hill (L-18, 20, 22, 24)
Norfolk	Clinch V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN V266 Burdette (L18-20-22)
Orlando	Blue Jacket V267 Woodruff (L-18, 19)
Philadelphia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 OOD (L-18, 20, 22, 24)
Washington	Clinch V3E SAV V3 RDU V155 LVL V157 Ironsides (L-18, 20, 22)

KANSAS CITY METRO AREA

Midway	Excelsior V116 JOT (L–21, 23)
O'Hare	Excelsior V116 JOT (L–21, 23)
St. Louis	BSP V12 MTS (L–21)
Wichita	Bonner Springs V12 De Graff (L–6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 Liberty (L–21, 22, 24)
Newark	V4 CRW V106 V30 Rocky Hill (L–21, 22, 24)

MEMPHIS

Atlanta	HLI V176 BHM V18S Palmetto (L14, 20)
Dallas	Prichard V16S PBF V16 DAL (L13–L14)
Dulles	Moscow V16S GHM V16 V140 MOL V251 V174 Blue Ricge (L14, 21, 22)
Midway	Cuba V9W V9 JOT (L–14, 21, 22)
New Orleans	Savage V9W GRW V9 Madison (L14–L17)
O'Hare	Cuba V9W V9 JOT (L–14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 Ironsides (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta	MIA V7 LAL V157 AMG V5 McDonough (L19, 18, 20)
Charlotte	MIA V7 LAL V157 ALD V37 FML (L19–L18–L20)
Chicago	MIA V35 FMY V7 LAL V157 AMG V51 DBN V267 TYS V97 CGT (L19, 20, 22, 21, 23)
Cleveland	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 Sharon (L19, 20, 22, 21, 23)
Detroit (city)	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 QG (L19, 20, 22, 21, 23)
Dulles	Guppy drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E Brandy (L19–L20–L22)
Habana	Gary V51 EYW drct SF/Rbn or PRR/Rbn B19 EYW drct SF. Rbn (L19)
Kennedy	Guppy drct Halibut Control 1150 ILM V1 BGT (L–19, 20, 22, 24)
Jacksonville	Martin V3E PBI V3 DAB V3E Shiloh (L–19)
La Guardia	Guppy drct Halibut Control 1150 ILM V1W V213 RBV (L–19, 20, 22, 24)
Metro Wayne Co.	MIA. V7 LAL V157 ALD V37 PSK PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)
Newark	Guppy drct Halibut Control 1150 ILM V1 V29 V433 Rocky Hill (L–19, 20, 22, 24)
Pittsburgh	MIA V7 LAL V157 ALD V37 AGC (L19–L20–L22–L24)
Tampa	MIA V7 V35 Hansen (L19)
Washington	Guppy drct Halibut Control 1150 ILM V1 ISO V157 Ironsides (L–19–L20–L22)
Willow Run	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 API; or Taylor V7E V116 Surf (L–12, 23)
Detroit	V2S MKG V2 SVM (L–12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 RBV (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	Prescott V2 V97 V171 V6 API (L–10, 11, 23)
O'Hare	Prescott V2 V97 Lakewood (L–10, 11, 23)

MONTGOMERY

Washington	TPE V154 MCN V56 AGS V155 V157 Ironsides (18, 20, 22)

NASHVILLE

LaGuardia	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V213 RBV (L21, 22, 24)
Newark	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 Rocky Hill (L21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta	PCU V70 MVC V20 MGM V20N Sharps (L17, 18, 20)
Birmingham	PCU V455 MEI V154 V209 BWA drct BHM/LOM (L–17, L–18, L–14)
Dallas	Walker V–114N AEX V–114 GGG V–94 V–477E Forney (L–17, 13)
Dulles	PCU V70 MVC V20 SBV V39 GVE V39E Brandy (L–17, 18, 20, 22)
Houston	TBD V20S LFT V20 LCH V222N Monument (L–17)
Kennedy	PCU V70 MVC V20 V213 ENO V44 Barnegat (L–17, 18, 20, 22, 24)
Memphis	PCU V9E MCB V9 GRW V9E Independence (L–14)
Newark	PCU V70 MVC V20 V213 ENO V29 V433 Rocky Hill (L–17, 18, 20, 22, 24)
Washington	PCU V70 MVC V20 SBV V39 GVE V16 Ironsides (L–17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	Sound POU V487 Brainard (L–25)
Bradley	Sound V433 Waterbury (L25)

From Newark only

Albany	SAX POU V487 Brainard (L–25)
Atlanta	SBJ V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	SBJ V3 V93 (L24)
Boston	SAX POU V58 V167 Sterling (L25)
Buffalo	TVE V188 V147 V36 Dale (L–25)
Cincinnati	SBJ V3 V166 V4 V174 V128 California (L24–22)
Cleveland	TVE V232 Mentor (L–24, 23)
Detroit (City)	TVE V188 TOH V147 V116 QG (L24, 23)
Detroit Metro Area	TVE V188 V147 V116 QG (L24, 23)
Dulles Int'l	SBJ V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	TVE V232 ETG V226 V119 V210 (L24–23)
Jacksonville	SBJ V3 V29 SBY V1 V437 SAV V3 St. Marys (L24, 22, 20, 18)
Louisville	SBJ V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co.	TVE V188 TOH V147 V116 QG (L24, 23)
Miami	SBJ V3 V29 SBY V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E Oakland (L–24, 22, 20, 19)
Nashville	SBJ V3 EMI V39 V140 Lebanon (L24, 22, 14)
New Orleans	SBJ V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18)
Norfolk Metro Area	SBJ V3 V29 SBY V1 CCV (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 Warrington (L24)
Pittsburgh	TVE V232 ETG V226 EWC (L-24)
Providence	SAX POU V58 V130 Lafayette (L25)
Rochester	SAX V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	SAX V483 (L-25)
Toledo	TVE V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	TVE V188 TOH V147 V116 QG (L24, 23)

From Kennedy only

Atlanta	Dutch V308 ENO V213 V20 SPA V20N OCR (L24, 22, 20)
Baltimore	Dutch V308 ENO V268 (L24)
Boston	HTO V139 HTM (L25)
Buffalo	HUO V126 V36 Dale (L-25)
Cleveland	HUO V126 V58 IPT V188 JFN V14 Mentor (L25, 24, 23)
Detroit	HUO V126 V116 QG (L25, 24, 23)
Dulles	HUO V39 V162 HAR V223 Sugar Loaf (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	Dutch V139 V1 V437 V3 St. Marys (L-24, 22, 20, 19)
Louisville	HUO V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
Metro Wayne Co.	HUO V126 BFD V172 V188 V103 Lasalle (L25, 24, 23)
Miami	Dutch V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E Oakland (L-24, 22, 20, 19)
Montreal	Sound POU V487 (L-25, 26)
New Orleans	Dutch V308 OTT V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	Dutch V139 CCV (L-24, 22)
O'Hare	HUO V126 V116 V170 V84 OBK (L25, 24, 23)
Philadelphia	Dutch V312 CYN V16 V239 OOD (L24)
Pittsburgh	HUO V126 AVP V58 V226 EWC (L-25, 24)
Providence	HTO V139 (L25)
Rochester	HUO V249 V34 Fishers (L-25)
Syracuse	HUO V483 (L25)
Toronto	HUO V126 AVP V36 (L-25, 12)
Washington	Dutch V308 North Beach (L24, 18)
Willow Run	HUO V126 AVP V116 QG (L25, 24, 23)

From LaGuardia only

Atlanta	Paterson V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	Paterson V3 V93 (L24)
Boston	Sound V467 MAD V475E V16 BOS (L25)
Buffalo	SAX V36 Dale (L-25, 12)
Cincinnati	Paterson V3 V166 V4 V174 V128 California (L24-22)
Cleveland	SAX TOH V188 JFN V14 Mentor (L-24, 23)
Columbus	SAX TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	SAX TOH V147 V116 QG (L24, 23)
Dulles Intl	Paterson V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	SAX TOH V226 V119 V210 (L24, 23)
Louisville	Paterson V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	Sound POU V487 (L-25)
Metro Wayne Co.	SAX TOH V147 V116 QG (L24, 23)
Nashville	Paterson V3 EMI V39 V140 Lebanon (L24, 22, 14)
O'Hare	SAX TOH V147 V116 V170 V84 OBK (L24, 25)
Philadelphia	Paierson V3 Warrington (L24)
Pittsburgh	SAX TOH V226 EWC (L24)
Providence	Sound V467 V475E V130 Lafayette (L24, 25)
Rochester	SAX V116 AVP V29 V423 V34 Fishers (L25)
Toronto	SAX V36 (L-25, 12)
Washington	Paterson V3 ESR V140 Dayton GTN/Rbn DCA (L24)
Willow Run	SAX TOH V147 V116 QG (L24, 23)

NORFOLK METRO AREA

Charlotte	CVI V194 RDU V66 Midland (L22, 20)
Dulles	Farnham V286 Brandy (L22)
Kennedy	CCV V1 BGT (L-22, 24)
Jacksonville	CVI V1 CHS V437 SAV V3 St. Marys (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 RBV (L-22, 24)
Newark	CCV V1 SBY V29 V433 Rocky Hill (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 OOD (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 Ironsides (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	Prague V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	Crescent V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 Brooks (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E Shiloh (L-19)

PHILADELPHIA METRO AREA

Baltimore	EWT V166 V93 (L-24)
Boston	MIV 101 rad V139 HTM (L24, 25)
Buffalo	Boyer V170 SLT ELZ V119 Burns V36 Dale (L-25)
Cleveland	Boyer V162S HAR V12 AGC V8 BSV V40 Sharon (L-24, 23)
Detroit (City)	Boyer V162S V12 V37 V103 V42 QG (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 Sugar Loaf (L24)
Kennedy	Columbus V123 RBV (L-24)
Jacksonville	MIV 205 rad ATR V1 V437 V3 St. Marys (L24, 22 20, 19)
LaGuardia	Columbus V213 RBV (L-24)
Metro Wayne Co.	Boyer V162S V12 V37 V103 Lasalle (L24, 23)
Miami	MIV 205 rad ATR V1 Control 1150 Sturgeon Tarpon PBI V159E Oakland (L28, 27, 19)
Newark	V433 Rocky Hill (L-24)
Norfolk	MIV 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	Boyer V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	EWT V166 V140 Dayton GTN/Rbn DCA (L24)
Willow Run	Boyer V162S V12 V37 V103 Lasalle (L24, 23)

PHOENIX

Albuquerque	Lake V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 Harrington Ranch (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N Farley (L-4, 6)

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 Sharon (L-23, 24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
Willow Run	V40 V42 V103 Lasalle (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 OCR (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 (L-24) EMI
Boston	Freeport V119 V276 TON V35 ELM V72 ALB V2 GDM (L-24, 25)
Charleston W. Va.	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 Niles (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
Detroit	V40 V42 V103 Lasalle (L24, 23)
Kennedy	V119 V276 RBV (L-24)
Indianapolis	V210; or Kilgore V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 Liberty (L24)
Newark	V119 V276 Reedsville V106 SEG V30 Rocky Hill (L-24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
St. Louis	Kilgore V210 Staunton (L23, 21)
Washington	V103 V92 FRR V4 HRN (L-24)

From Allegheny Co. only

Chicago	AGC V8 FDY V422 CGT V7 Niles (L-24, 23)
Kennedy	V12 V106 Reedsville V276 RBV (L24)
LaGuardia	V12 V106 SEG V6 V433 Liberty (L24)
Newark	V12 V106 V30 Rocky Hill (L24)

PROVIDENCE

Kennedy	V167 V16 RVH (L25)
LaGuardia	V167 V3 V445 Stamford (L52)
Newark	V167 HFD V292 Budd Lake (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 OOD (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 GDM (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 Park (L-12, 23)
Kennedy	V147 GEE V252 BGM V270 V34 CMK BDR RVH (L25)
LaGuardia	V147 ABE V6 V433 Liberty (L-25)
Newark	V147 TOH V226 Budd Lake (L25)
Philadelphia	V147 ABE V149 V3 Warrington (L25-24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn DCA (L25-24)
Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 Lasalle (L12, 23)

SAN ANTONIO

Dallas	Mission V17 ACT V15 Desoto (L-15, 17, 13)
El Paso	Guadalupe V222 Rio (L-15, 4)
Houston	Clear Spring V198 ELA V180 Arcola (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	LIN V113 RNO V6 MBW V100 Lakewood (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	Shrimp V27 SBP V137 Pozo V25 V12 FIM (L-2, 3)
Kennedy	LIN V113 RNO V6 MBW V100 OBK V84 LAN V2 SVM V116 ERI V170 V276 RBV (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	TOY V12 Wilbur V11 IND V14 FDY V8 MFD V246 Sharon (L-21. 23)
Columbus	TOY V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 Lakeside (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 Justin (L-21, 6, 13)
Indianapolis	TOY V12 Wilbur V11 (L-21, 23)
Kansas City	V4 Missouri City (L-21)
Memphis	V9 Kerrville (L-21, 14)
Midway/O'Hare	V9 JOT (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	TOY V52 EVV V4 HRN (L-21, 22)

SYRACUSE

Kennedy	V273 HNK V34 CMK BDR RVH (L25)
LaGuardia	V153 V29 V6 V433 Liberty (L25)
Newark	V273 Budd Lake (L25)
Philadelphia	V29 BGM V149 V3 Warrington (L25-24)

TAMPA METRO AREA

Atlanta	V97W Scallop V97 Brooks (L-19, 18, 20)
Miami	Gibson V97 MIA (L-19)

TORONTO

Kennedy	V34 CMK BDR RVH (L12, 25)
LaGuardia	V36 V147 V6 V433 Liberty (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 JOT (L-6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 Lakeside (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis	V140 FYV V72 V9 Lemay (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston	Swan Point V268 V139 HTM (L24-25)
Chicago	Flint Stone V8 FDY V422 CGT (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 Sharon (L-24, 23)
Jacksonville	BRV V3 St. Marys (L-22, 20, 18)
Kennedy	Swan Point V123 RBV (L24)
LaGuardia	Swan Point V123 RBV (L24)
Newark	Swan Point V433 Rocky Hill (L24)
Philadelphia	Swan Point V123 OOD (L24)
Pittsburgh	Flint Stone V8 AGC (L-24)

From Washington only

Atlanta	CSN V140 MOL V143 LYH V222 AVL V35 Clemson V20N OCR (L-22, 20)
Charleston W. Va.	CSN V308 V174 V4 Ivydale (L22)
Charlotte	BRV V3 RDU V66 Midland (L22, 20)
Dallas	CSN V140 BNA V16 DAL (L22, 21, 14, 13)
Greensboro	CSN V140 MOL V143 Leaksville (L-22)
Harrisburg	Ashburn V8N V223 (L-24)
Jacksonville	BRV V3 St. Marys (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21, 14)
Miami	BRV V3 V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E Oakland (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	CSN V140 Lebanon (L22, 21)
New Orleans	CSN V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W Madison (L22, 20, 14, 18)
Norfolk Metro area	BRV V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 St. Marys (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	EMI V166 EWT V157 RBV or EMI V166 V239 V238 ACY V1 BGT (L-24)
Jacksonville	CSN V39 GVE V155 FAK V3 St. Marys (L24)
LaGuardia	EMI V166 EWT V157 RBV (L-24)
Miami	CSN V39 GVE V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E Oakland (L22, 20, 19)
Newark	EMI V166 EWT V433 Rocky Hill (L-24)
Philadelphia	Braddock HRN 354 rad V251 V238 ESR (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E Langaton (L6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Part 1)

(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3 000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 racial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence

via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Philipsburg VORTAC 082 radial Philipsburg VORTAC 082 radial to Philipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**—Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transiton**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 090 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 082 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, heading 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

ALABAMA

MONTGOMERY "MGM" VORTAC SHUTDOWN

DME shutdown until aprxly Sep 17. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V7	Banks Int to MGM VORTAC	None		
V17/115	MGM VORTAC to Jones Int	None		
V115	Rutledge Int to VORTAC	Rutledge Int to Tmpry MGM Int via CEW VORTAC 009 rad	5,500	17,500
V20	MVC VOR to MGM VORTAC	MVC VOR to Tmpry MGM Int via MVC VOR 045 rad	3,000	17,500
V20/58	MGM VORTAC to Kent Int	Tmpry MGM Int to Kent Int via LGC VOR 228 rad	3,700	17,500
V154	SEM VOR to MGM VORTAC	SEM VOR to Tmpry MGM Int via SEM VOR 098 rad	2,000	17,500
	MGM VOR to TGE VOR	Tmpry MGM Int to TGE VOR via TGE VOR 243 rad	2,000	17,500
V20N	MGM VORTAC to ATL VORTAC	None		
V154S	MGM VORTAC to Midway Int	None None		

Existing Reporting Points	Temporary Reporting Points	MRA
MGM VORTAC	Tmpry MGM Int—SEM VOR 098 rad and TGE VOR 243 rad	1,500
Banks Int	DHN VORTAC 331 rad and EUF VOR 256 rad	1,600
Goshen Int	EUF VOR 256 rad and MXF VOR 157 rad	3,600
Rutledge Int	MVC VOR 069 rad and CEW VORTAC 009 rad	1,700
Grady Int	TGE VOR 218 rad and MXF VOR 155 rad	1,200
Sellers Int	SEM VOR 116 rad and MXF VOR 168 rad	1,200
Greenville Int	SEM VOR 145 rad and MVC VOR 045 rad	1,500
Calhoun Int	SEM VOR 112 rad and MXF VOR 178 rad	1,200
Jones Int	BHM VORTAC 177 rad and TGE VOR 274 rad	2,800
Central Int	TGE VOR 317 rad and LGC VOR 245 rad	1,500
Kent Int	TGE VOR 317 rad and LGC VOR 228 rad	1,000
Martin Int	TGE VOR 277 rad and LGC VOR 228 rad	1,000
Major Int	TCL VORTAC 103 rad and MXF VOR 006 rad	2,000

All other ints based on MGM VORTAC are unusable.

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J41	TLH VORTAC to MGM VORTAC	None		
J39	CEW VORTAC to	CEW VORTAC to Tmpry MGM Int via CEW VORTAC 009 rad	FL 180	FL 450
J39/41	MGM VORTAC to	Tmpry MGM Int to BHM VORTAC 158 rad	FL 180	FL 450

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
J37	MSY VORTAC to MGM VORTAC	MSY VORTAC to Tmpry MGM Int via MSY VORTAC 060 rad to MOB VORTAC thence via MOB VORTAC 044 rad	FL 180	FL 450
J4/37	MGM VORTAC to ATL VORTAC	Tmpry MGM Int to ATL VORTAC via ATL VORTAC 230 rad	FL 180	FL 450
J4	MEI VORTAC to MGM VORTAC	MEI VORTAC to Tmpry MGM Int via MEI VORTAC 089 rad	FL 180	FL 450
J40	MGM VORTAC to MCN VORTAC	Tmpry MGM Int to MCN VORTAC via CSG VOR 249 rad to CSG VOR thence via MCN VORTAC 267 rad	FL 180	FL 450

Existing Reporting Points	Temporary Reporting Points	MEA
MGM VORTAC	Tmpry MGM Int—ATL VORTAC 230 rad and BHM VORTAC 158 rad	FL 180

INDIANA

INDIANAPOLIS "IND" VORTAC SHUTDOWN

DME shutdown until Sep 16. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V96/285	OKK VOR to IND VOR	OKK VOR to Tmpry IND Int via OKK 199 rad	3,000	17,500
V11	Fairmount Int to IND VOR	Fairmount Int to Tmpry IND VOR via MZZ 218 rad	3,000	8,500
V11E/14/50N/210	Pendleton Int to IND VOR	Pendleton Int to Tmpry IND Int via MIE 241 rad	3,000	17,500
V50	Arba Int to IND VOR	Arba Int to Tmpry IND Int via DAY 264 rad	9,000	17,500
V97W	SHB VOR to IND VOR	SHB VOR to Tmpry IND Int via SHB 293 rad	3,000	17,500
V128	Hope Int to IND VOR	None		
V63	Int of LOU 332 rad and IND 169 rad to IND VOR	None		
V11E	Paragon Int to IND VOR	None		
V11	SCJ VOR to IND VOR	SCJ VOR to Tmpry IND Int via SCJ 023 rad	3,000	15,500
V11W/14S/210S	Cloverdale Int to IND VOR	None		
V14/60/210	Manhattan Int to IND VOR	Manhattan Int to Tmpry IND Int via HUF 062 rad	3,000	17,500
V53/128/227	Linden Int to IND VOR	Linden Int to Tmpry IND Int via EPT 130 rad	3,000	17,500
V97W	Lebanon Int to IND VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
IND VOR	HUF 062 rad and SHB 293 rad or EPT 130 rad and MIE 241 rad	3,000
Zionsville Int	OKK 199 rad and SHB 312 rad	3,000
Advance Int	HUF 050 rad and EPT 130 rad	3,000
Pendleton Int	SHB 005 rad and MIE 241 rad	3,300
Maxwell Int	DAY 264 rad and SHB 005 rad	9,000
Holel Int	None	
Whiteand Int	None	
Banlputat	None	
Morgantown Int	None	
Paragon Int	None	
Brooklyn Int	None	
Wilbur Int	HUF 093 rad and SCJ 023 rad	3,000
Cloverdale Int	None	
Fillmore Int	HUF 062 rad and EPT 154 rad	3,000
Lebanon Int	OKK 212 rad and SHB 312 rad	2,900
Clinton Int	None	
Mitchell Int	None	
Clark Int	SHB 350 rad and MIE 241 rad	2,800
Westfield Int	SHB 327 rad and MZZ 218 rad	3,000
Houston Int	None	

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J80	CAP VOR to IND VOR	CAP VOR to Tmpry IND Int via CAP 087 rad	FL 180	FL 450
J80/110	APE VOR to IND VOR	APE VOR to DAY VOR via APE 267 rad and DAY 085 rad	FL 180	FL 450
		DAY VOR to Tmpry IND Int via DAY 264 rad	FL 180	FL 450
J24	Int of CRW 287 rad and IND 119 rad to IND VOR	None		
J140/21	STL VOR to IND VOR	STL VOR to LEU VOR via STL 080 rad and LEU 260 rad to LEU VOR	FL 180	FL 450
		LEU VOR to Tmpry IND Int via LEU 049 rad	FL 180	FL 480

Existing Reporting Points	Temporary Reporting Points	MRA
IND VOR	Tmpry IND Int—LAF 142 rad and LEU 049 rad	FL 180

Continued on next page

MICHIGAN

CARLETON "CRL" VORTAC SHUTDOWN

DME shutdown until aprxly Sep 16. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V98	QG VOR to CRL VOR	QG VOR to Tmpry CRL Int via QG 250 rad	2,500	17,500
V224	Tilbury Int to CRL VOR	None		
V10/188	Gill Int to Trout Int	Gill Int to Trout Int via JFN 284 rad	5,000	17,500
V10/188	Trout Int to CRL VOR	None		
V297	Stripe Int to CRL VOR	None		
V493	VWV VOR to CRL VOR	VWV VOR to Tmpry CRL Int via VWV 015 rad	2,500	17,500
V10	Brooklyn Int to CRL VOR	Brooklyn Int to Milan Int via LFD 091 rad	3,000	17,500
V10	Milan Int to CRL VOR	Milan Int to Tmpry CRL Int via LFD rad 091	3,500	17,500
V98	Hudson Int to Adrian Int	Hudson Int to Adrian Int via QG 250 rad	4,500	17,500
	Adrian Int to CRL VOR	Adrian Int to Tmpry CRL Int via QG 250 rad	3,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
CRL VOR	Tmpry CRL Int–QG 250 rad and SVM 168 rad	2,500
Samaria Int	VWV 355 rad (17 mi DME)	2,400
Adrian Int	VWV 325 rad and SVM 215 rad	3,000
Detroit River Int	SVM 141 rad and QG 228 rad	2,700
Milan Int	LFD 091 rad and SVM 200 rad (DME 23 mi)	3,000
Pelee Int	QG 153 rad and SKY 010 rad	3,000
Trout Int	QG 137 rad and SKY 024 rad	3,000
St George Int	STG 308 rad and SKY 008 rad	3,000
Royal Int	None	
Rockwood Int	SVM 141 rad and QG 243 rad	2,500
Stripe Int	VWV 055 rad and SKY 345 rad	3,000
Creek Int	None	
Border Int	None	
Mooreville Int	YIP VOR 230 rad and SVM rad 200 (19 mi DME)	2,500 MAA 12,000
Staples Int	None	
Wood Int	None	

Jet Routes

Routes	Existing Routes	Substitute Routes
J584	OBK VOR to CRL VOR	None
J584/HL-584	CRL VOR to SLT VOR	None

Existing Reporting Points	Temporary Reporting Points
CRL VOR	None

● ESCANABA "ESC" VORTAC SHUTDOWN

Aug 22, VORTAC will be shutdown until aprxly Oct 13. For substitute route structure during shutdown use the following:

Low Altitude

Routes	Existing Routes	Substitute Routes	MEA	MAA
V7	MNM VOR to ESC VOR	MNM VOR to Tmpry ESC Int via MNM 035 rad	2,400	17,500
V133	MQT VOR to ESC VOR	MQT VOR to Tmpry ESC Int via MQT 158 rad	4,000	17,500
V133	TVC VOR to ESC VOR	TVC VOR to Tmpry ESC Int via TVC 317 rad	10,000	17,500
V430	IMT VOR to ESC VOR	IMT VOR to Tmpry ESC Int via IMT 096 rad	3,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA	MAA
ESC VOR	MNM VOR 035 rad and and MQT VOR 158 rad	4,000	17,500

MISSISSIPPI

● MERIDIAN "MEI" VORTAC SHUTDOWN

Sep 26, VORTAC will be shutdown until aprxly Sep 27. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V455	HBG VORTAC to MEI VORTAC	HBG VORTAC to Tmpry MEI Int via HBG VORTAC 020 rad	4,000	17,500
V455W	HBG VORTAC to MEI VORTAC	HBG VORTAC to Tmpry MEI Int via HBG VORTAC 005 rad nda MCB VORTAC 043 rad	8,000	17,500
V194	MCB VORTAC to MEI VORTAC	MCB VORTAC to Tmpry MEI Int via MCB VORTAC 043 rad	8,000	17,500
V188	JAN VORTAC to MEI VORTAC	None		
V18	JAN VORTAC to MEI VORTAC	JAN VORTAC to Tmpry MEI Int via JAN VORTAC 091 rad	3,000	17,500
V18	MEI VORTAC to TCL VORTAC	Tmpry MEI Int to TCL TCL VORTAC via TCL VORTAC 228 rad	4,000	17,500
V18N	JAN VORTAC to MEI VORTAC	None		
V164	MEI VORTAC to EWA VOR	Tmpry MEI Int to EWA VOR via EWA VOR 268 rad	2,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
Louin Int	HBG VORTAC 005 rad and MCB VORTAC 043 rad	5,500
Rose Hill Int	JAN VORTAC 103 rad and MCB VORTAC 043 rad	6,000
Decatur Int	HBG VORTAC 002 rad and JAN 091 rad	3,000

Continued on next page

SUBSTITUTE ROUTE STRUCTURE

Existing Reporting Points	Temporary Reporting Points	MRA
Boyd Int	TCL VORTAC 228 rad and UBS VORTAC 166 rad	2,000
MEI VORTAC	Tmpry MEI Int—HBG VORTAC 020 rad and EWA VOR 268 rad and JAN VORTAC 091 091 rad NOTE—Int Flagged MRA 4000	4,000

All other ints based on MEI VORTAC are unusable.

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J31	MSY VORTAC to MEI VORTAC	MSY VORTAC to Tmpry MEI Int via MSY VORTAC 020 rad	FL 180	FL 450
J22/31	MEI VORTAC to BHM VORTAC	Tmpry MEI Int to BHM VORTAC via BHM VORTAC 229 rad	FL 180	FL 450
J22	MCB VORTAC to MEI VORTAC	MCB VORTAC to Tmpry MEI Int via MCB VORTAC 043 rad	FL 180	FL 400
J4	JAN VORTAC to MGM VORTAC	JAN VORTAC to MGM VORTAC via JAN VORTAC 090 rad and EWA VOR 272 rad to EWA VOR thence via EWA VOR 085 rad and MGM VORTAC 279 rad	FL 180	FL 450

NEW MEXICO

● SOCORRO "ONM" VORTAC SHUTDOWN

VOR will be shut down Sep 27 thru Sep 29. DME will be shut down Sep 27 thru Oct 5. For substitute route structures during shutdown use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V19	TCS VORTAC to ONM VORTAC to ABQ VORTAC	TCS VORTAC to ABQ VORTAC via TCS VORTAC 015 rad and ABQ VORTAC 171 rad	9,500	17,000
V19E/19W	ONM VORTAC to ABQ VORTAC	None		
V264	SJN VORTAC to ONM VORTAC	None		
V192	ONM VORTAC to CNX VOR	None		

Existing Reporting Point	Temporary Reporting Point
ONM VORTAC	None

Jet Routes

	Existing Route	Substitute Route	MEA	MAA
J74	SJN VORTAC via ONM VORTAC to TXO VORTAC	SJN VORTAC to TXO VORTAC via SJN VORTAC 057 rad and ABQ VORTAC 240 rad to ABQ VORTAC thence via J–72 to TXO VOR-VORTAC	FL 180	450

Airways	Existing Airways	Substitute Routes	MEA	MAA
J104	SSO VORTAC via ONM VORTAC to LVS VORTAC	SSO VORTAC to LVS VORTAC via SSO VORTAC 045 rad and TCS VORTAC 226 rad to TCS VORTAC; thence via TCS VORTAC 359 359 rad and LVS VORTAC 214 rad to LVS VORTAC	FL 180	450

Existing Reporting Point	Temporary Reporting Point
ONM VORTAC	None

NEW YORK

ITHACA "ITH" VOR SHUTDOWN

VOR will be shut down til aprxly Oct 1. For substitute route structure during shutdown, use flwg:

Airways	Existing Airways	Substitute Routes	MEA	MAA
V34	Bellona Int to ITH VOR	None		
V34	ITH VOR to HNK VOR	None		
V423	BGM VOR to ITH VOR	None		
V423	ITH VOR to Scipio Int	None		
V428	ITH VOR to GGT VOR	ITH to GGT VOR via GGT VOR 249 rad	3,800	17,500
V428	ELM VOR to ITH VOR	ELM VOR to ITH Int via ELM VOR 055 rad	3,800	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
ITH VOR	Tmpry ITH Int: BGM VOR 335 rad GGT VOR 249 rad	3,800
Cortland Int	Cortland Int: GGT VOR 249 rad and BGM VOR 007 rad	3,800

OHIO

BRIGGS "BSV" VORTAC SHUTDOWN

Due to unusable sectors, following substitute route is efctv immediately.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V40,76	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,76,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500
BSV VORTAC		Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad	3,100	

PENNSYLVANIA

•TYRONE "TON" VORTAC SHUTDOWN

Sep 19, VORTAC will be shut down til aprxly Oct 5. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V276	EWC VOR to TON VOR to RAV VOR	None		
V35	JST VOR to TON VOR to PSB VOR	JST VOR 048 rad to PSB 242 rad to PSB VOR	4,500	17,500
V58	CLN VOR to TON VOR to PSB VOR	CLN VOR 065 rad to PSB VOR 242 rad to PSB VOR	4,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
TON VOR	None	
Huntingdon Int	JST VOR 074 rad and PSB VOR 193 rad	4,500

WISCONSIN

MILWAUKEE "MKE" VORTAC SHUTDOWN

DME shut down thru Sep 16. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V2	LNR VOR to Marshall Int	LNR VOR to TAX VOR via LNR VOR 102 rad and TAX VOR 281 rad	3,000	7,000
		TAX VOR to Marshall Int via TAX VOR 090 rad	3,600	7,000
	Marshall Int to MKE VOR	Marshall Int to MKE Int Int via TAX VOR 090 rad	3,600	17,500
	Minnow Int to Seaweed Int	Minnow Int to Seaweed Int via MKG VOR 270 rad	5,000	17,500
	Seaweed Int to Cardinal Int	Seaweed Int to Cardinal Int via MKG VOR 270 rad	6,000	17,500
	Cardinal Int to MKE VOR	Cardinal Int to MKE Int via MKG VOR 270 rad	7,000	11,000
V9/191	Eden Int to MKE VOR	Eden Int to MKE Int via OSH VOR 165 rad	3,000	17,500
V7	Chilton Int to Calvary Int	Chilton Int to Calvary Int via GRB VOR 182 rad	3,000	17,500
	Calvary Int to MKE VOR	Calvary Int to MKE Int via GRB VOR 182 rad	7,000	17,500
V63	JVL VOR to MKE VOR	JVL VOR to MKE Int via JVL VOR 044 rad	3,000	17,500
V479	OBK VOR to MKE VOR	OBK VOR to MKE Int via OBK VOR 342 rad	3,900	17,500
V368/191	MKE VOR to Horlick Int	MWG VOR to Horlick Int via MWC VOR 127 rad	3,000	17,500
V368	Horlick Int to Rainbow Int	Horlick Int to Rainbow via MWC VOR 127 rad and PMM VOR 282 rad	3,000	17,500
V28/38/170	MKE VOR to Sunfish Int	MWC VOR to Sunfish Int via MWC VOR 104 rad	2,700	17,500
V170	Randolph Int to MKE VOR	None		
V9/429	Elkhorn Int to MKE VOR	None		
V9	Marengo Int to Elkhorn Int	None		
V7/7E/217	Taylor Int to MKE VOR	None		
V7E	Taylor Int to Int with CGT 011 rad	None		

Existing Reporting Point	Temporary Reporting Point	MRA
MKE VOR	Tmpry MKE Int—OSH VOR 165 rad and JVL VOR 044 rad	3,000
Big Bend Int	OBK VOR 342 rad and JVL VOR 062 rad	3,900
Braves Int	MWC VOR 127 rad and OBK 038 rad	3,000

Existing Reporting Points	Temporary Reporting Points	MRA
Calvary Int	GRB VOR 182 rad and OSH VOR 120 rad	3,000
Cardinal Int	MKG VOR 270 rad and N crs MKE ILS	6,000
Horlick Int	MWC VOR 127 rad and ORD VOR 017 rad	3,500
Marshall Int	TAX VOR 090 rad and JVL VOR 001 rad	3,600
Morey Int	TAX VOR 281 rad and JVL VOR 330 rad	3,000 MAA 7,000
Pike Int	MWC VOR 127 rad and JVL VOR 073 rad	4,000
Randolph Int	DLL VOR 094 rad and OSH VOR 206 rad	3,000
Seaweed Int	MKG VOR 270 rad and OBK VOR 017 rad	5,000
Watertown Int	TAX VOR 090 rad and JVL 028 rad	3,600
Wind Lake Int	OBK VOR 342 rad and JVL VOR 073 rad	3,000
Wall Eye Int	None	
Lake Park Int	None	
Harbor Int	None	
Oakwood Int	None	
Racine Int	None	

Continued on next page

SUBSTITUTE ROUTE STRUCTURE

Existing Reporting Points	Temporary Reporting Points	MRA
Taylor Int	None	
Elkhorn Int	None	
Harvard Int	None	
Belgium Int	None	

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J89/101	OBK VORTAC to MKE VORTAC	OBK VORTAC to MKE Int OBK VORTAC 343 rad	FL 180	FL 450
J34/70	PMM VORTAC to MKE VORTAC	PMM VORTAC to MKE Int via PMM VORTAC 293 rad		
J34/36	ODI VORTAC to MKE VORTAC	ODI VORTAC to MKE Int via ODI VORTAC 104 rad	FL 180	FL 450
J105	BDF VORTAC to MKE VORTAC	BDF VORTAC to MKE Int via BDF VORTAC 022 rad	FL 180	FL 450
J101	BRB VORTAC to MKE VORTAC	GRB VORTAC to MKE Int via GRB VORTAC 182 rad	FL 180	FL 450
J16/36	MKE VORTAC to ECK VORTAC	None		
J70	MSP VORTAC to MKE VORTAC	None		
J89	DLH VORTAC to MKE VORTAC	None		
J16	MCW VORTAC to MKE VORTAC	None		

Existing Reporting Point	Temporary Reporting Point	MRA
MKE VORTAC	Tmpry MKE Int—OBK VORTAC 343 rad and PMM VORTAC 293 rad	FL 180

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

ABERDEEN

42nd Edition, August 18, 1966

No hazardous changes.

•ALBANY

57th Edition, July 21, 1966

Add UNICOM Barnes Muni arpt 42°09'39''N, 72°42''48''W. Add ctl twr freq 122.7R Oneida County. Add UNICOM Sicho arpt 42°41'25''N, 73°34'50''W.

ALBUQUERQUE

57th Edition, August 18, 1966

No hazardous changes.

AROOSTOCK

43rd Edition, April 28, 1966

Add Loring AF VOR freq 115.0 ident LIZ class L mag var 22°W 46°50'10''N, 67°51'24''W.

•AUSTIN

61st Edition, April 28, 1966

Change Hood AAF twr freq from 118.6 to 126.2. Delete Allison Ranch arpt 30°34'N, 101°49'W. Delete Halbert Ranch arpt 30°35'N, 100°43'W. Delete RP Mayer Ranch arpt 30°35'N, 100°48'W. Delete Copeland Ranch arpt 30°43'N, 100°28'W. Delete Mayfield arpt 30°34'N, 100°48'W. Delete Mayfield Station B arpt 30°17'N, 100°14'W. Delete West Texas Boys Ranch arpt 31°20'N, 100°37'W. Delete Bruton arpt 30°54'N, 100°48'W. Add obstn 695' MSL 31°34'09''N, 97°00'00''W. Relocate Lampasas County airport from 31°08'30''N, 98°14'15''W to 31°06'23''N, 98°11'45''W.

•BEAUMONT

56th Edition, September 15, 1966

No hazardous changes.

•BELLINGHAM

53rd Edition, May 26, 1966

Add UNICOM Campbell River arpt 49°57'N, 125°16'W.

Add V304 awy Vancouver to Enderby (036°M from Vancouver).

BIRMINGHAM

61st Edition, April 28, 1966

Add UNICOM Stone Mountain arpt 33°48'40''N, 84°07'10''W. Change De Kalb Peachtree ctl twr freq 121.3 to 120.9. Add obstn 798' MSL 33°47'48''N, 87°20'32''W. Change Anniston RBn freq 329 to 278. Add obstn 702' MSL 31°54'55''N, 87°44'W. Delete Prattville RBn 32°28'N, 86°25'W. Delete McDonough VORTAC 33°24'31'N, 84°10'32''W. Delete rotating bcn Martin Field 32°09'N, 87°27'W. Delete Talladega VOR 33°17'08''N, 86°05'10'' W. Major awy changes E half of chart see latest C & GS Enroute Low Altitude chart. Add obstn 911' MSL UC 32°45'53''N, 89°07'31''W. Add obstn 2174' MSL 33°50'18''N, 85°43'51''W. Add obstn 1070' MSL UC 33°04'31''N, 85°01'22''W. Add obstn 784' MSL UC 33°01'53'' N, 89°28'52''W.

•BOISE

42nd Edition, May 26, 1966

Delete FM Eagle code — — — — — 43°43'30''N, 116°26'00'W. Add R-3202 bounded on the S by 42°40'00'', W by 115°38'14'', N by 42°48'45'' and E by 115°32'41''.

•BOSTON

58th Edition, September 15, 1966

No hazardous changes.

BURLINGTON

46th Edition, April 28, 1966

Add obstn 430' MSL 45°04'42''N, 74°46'18''W. Delete Trenton RBn 44°03'13''N, 77°37'37''W. Delete Deseronto arpt 44°11'N, 77°07'W. Add Camp Petawawa RBn freq 284 ident WP class MHW 45°56'19''N, 77°18'45''W.

•BUTTE

46th Edition, July 21, 1966

Add UNICOM Boulder arpt 46°13′N, 112°06′W.

CASPER

51st Edition, March 31, 1966

No hazardous changes.

•CHARLOTTE SECTIONAL CHART

58th Edition, April 28, 1966

Delete Lumberton RBn 34°36′N, 79°04′W. Add 700′ floor ctld airspace bounded on S by Asheville 1200′ TA on NE by V185E on NW by V16S and on SW by V185. Add obstn 1411′ MSL 36°04′12″N, 83°58′19″W. Add obstn 1209′ MSL 34°59′54″N, 81°14′15″W. Add obstn 526′MSL 34°14′57″N, 80°36′26″W. Add obstn 570′ MSL 35°41′25″N, 78°19′18″W. Delete Royston VOR 34°21′-26″N, 83°05′27″W. Delete ctl twr freq 317 Spartanburg Downtown Mem. Delete ctl twr freq 209 Greenville-Spartanburg 34°54′N, 82°13′W. Change ctl twr freq 384.8 to 287.0 Donaldson Center. Major awy changes on this chart see latest C &GS Enroute Low Altitude charts. Change Knoxville RBn freq 257 to 281. Add UNICOM Dillon Co arpt 34°27′N, 79°22′W. Add obstn 475′ MSL 35°29′10″N, 78°20′32′W.

CHATTANOOGA

58th Edition, August 18, 1966

No hazardous changes.

•CHEYENNE

54th Edition, June 23, 1966

Add obstn 4536′ MSL 41°11′09″N, 103°03′05″W. Add obstn 4567′ MSL 41°21′57″N, 102°58′24″W. Delete aband arpt symbol and type 40°36′N, 105°09′W. Add UNICOM Fort Collins-Loveland arpt 40°27′N, 105°01′W. Add obstn 5586′ MSL (9 towers) 40°40′41″N, 105°02′50″W.

•CHICAGO

62nd Edition, May 26, 1966

Delete Carm arpt 43°45′N, 88°01′W. Add Sturgis RBn freq 380 ident IRS class MHW 41°49′N, 85°26′W. Delete ctl twr freq 342 at DuPage Co. Delete Berg arpt 40°33′N, 84°14′W. Add unicom Allen Co arpt 40°42′N, 84°02′W. Delete Goshen RBn 41°31′N, 85°52′W. Add obstn 1050′ MSL 41°08′17″N, 87°53′46″W. Add obstn 1019′ MSL 41°19′56″N, 88°49′30″W. Delete Prosperi arpt 41°33′N, 87°47′W. Add UNICOM Kirsch arpt 41°49′N, 85°26′W. Add UNICOM Marion arpt 40°29′N, 85°41′W.

•CINCINNATI

62nd Edition, August 18, 1966

Add Connersville non-federal RBn freq 275 ident CEV class MHW 39°41′51″N, 85°08′04″W.

•CLEVELAND

62nd Edition, May 26, 1966

Delete Norwalk arpt 41°16′00″N, 82°36′20″W. Delete Circle V arpt 41°05′N, 83°15′W. Delete Bedford (Cessna) arpt 40°05′30″N, 78°31′15″W. Add obstn 1395′ MSL 40°50′17″N, 81°18′13″W. Add obstn 1814′ MSL 40°39′45″N, 79°20′36″W. Delete UNICOM Butler-Roe arpt 40°51′N, 79°58′W. Delete Burke Lakefront SPB 41°30′45″N, 81°41′30″W. Delete UNICOM Ohio State University arpt 40°04′40″N, 83°04′30″W. Change Strongsville VOR freq 108.4 to 112.0. Add UNICOM Rhea arpt 41°14′22″N, 79°25′54″W. Add obstn 2049′ MSL 41°40′03″N, 83°21′22″W.

•CORPUS CHRISTI

57th Edition, July 21, 1966

Add obstn 560′ MSL 26°15′26″N, 98°13′53″W.

•DALLAS

63rd Edition, July 21, 1966

Delete Starnes arpt 33°53′N, 101°59′W. Increase obstn elev 3315′ to 3469′ MSL 33°31′15″N, 101°46′27″W.

DEL RIO

41st Edition, November 11, 1965

Add UNICOM PRESIDIO arpt 29°34′N, 104°22′W. Add obstn 2216′ MSL 29°43′27″N, 10048′46″W.

DENVER

56th Edition, June 23, 1966

No hazardous changes.

DES MOINES

55th Edition, April 28, 1966

Delete Vander Wilt arpt 41°23′N, 92°48′W. Add obstn 1080′ MSL 41°41′02″N, 91°30′16″W. Add obstn 1149′ MSL 41°32′30″N, 91°16′36″W. Add UNICOM Maquoketa-Swift arpt 42°04′N, 90°45″W. Relocate Omaha RBn 41°03′18″N, 95°48′15″W to 41°22′N, 95°57′21″W change ident OMA to OM class MHW to HASB/LOM.

•DETROIT

61st Edition, July 21, 1966

Add UNICOM Moorhead arpt 42°11′N, 79°53′W. Delete Central RBn 43°16′57″N, 81°26′28″W. Centralia ctl twr decmsnd 43°18′N, 81°31′W.

DOUGLAS

43rd Edition, October 14, 1965

Add Fort Huachuca Ariz ctl zone 5 mi radius Libby AAF arpt 31°35′N, 110°20′W with SE extsn. Delete Vail FM 32°04′N, 110°40′W. Change Douglas VOR freq from 110.0 to 108.8 VOR relocated from 31°30′47.1″N, 109° 40′15.7″W to 31°28′21.3″N, 109°36′ 05.0″ W.

•DUBUQUE

52nd Edition, September 15, 1966

No hazardous changes.

•DULUTH

40th Edition, July 21, 1966

In northern border delete Graham LFR legs box & type. Delete Robbel arpt 45°56′N, 90°28′W. Change ident DLH to DL Duluth RBn.

•ELKO

46th Edition, May 26, 1966

Add V507 awy from Reno to Sod House (196°M from Sod House).

EL PASO

56th Edition, August 18, 1966

No hazardous changes.

FARGO

45th Edition, August 18, 1966

No hazardous changes.

•GLACIER PARK

38th Edition, Octber 14, 1965

Delete Cameron Ranch arpt 49°55'N, 112°22'W. Add V536 airway from Great Falls to Kalispell (Kalispell lctn 48°12'50''N, 114°10'29''W). Add obstn 3526' MSL 49°24'00''N, 112°18'00''W.

•GRAND CANYON

42nd Edition, May 26, 1966

Add Grand Canyon VOR freq 109.0 ident GCN class T-BVOR mag var 15°E 35°57'38''N, 112°08'50''W. Add UNICOM Grand Canyon Natl Park arpt 35°57'N, 112°09'W.

•GRAND JUNCTION

44th Edition, May 26, 1966

Delete awy bcn site #65 code • — • 39°03'55''N, 108°-44°50''W. Change freq 111.8 to 115.2 Meeker VOR.

•GREEN BAY

53rd Edition, May 26, 1966

Delete Valley arpt 44°08'N, 88°30'W. Add Iron Mountain VOR freq 111.2 ident IMT class L/BVOR mag var 1°E 45°48'59''N, 88°06'43''W. Add ctl zone 5 mi radius Ford arpt 45°49'N, 88°07'W with S, SE & W extsns ctl efctv by NOTAM's. Add V9 Green Bay to Iron Mountain to Houghton (348°M from Iron Mountain). Add V430 awy Escanaba to Iron Mountain to Ironwood (297°M from Iron Mountain). Add V9E awy Iron Mountain to Marquette (027°M from Iron Mountain). Add 700' Transition area 6 mi radius Otsego Co arpt 45°01'N, 84°42'W a 1200' transition area 8 mi N & 5 mi S of 087°T bearing from Otsego Co arpt to a point 12 mi E & the airspace 5 mi each side of 304°T bearing from the arpt to V193. Add UNICOM Boyne Mtn arpt 45°10'N, 84°56'W.

HAWAIIAN ISLAND

18th Edition, December 9, 1965

Change Maui ctl twr freqs from 118.1 257.8 to 118.7 279.6. Delete ctl twr freq 278 at Hilo. Add obstn 6827' MSL 20°47'N, 156°14'W. Delete ctl twr freq 278 Gen Lyman.

HUNTINGTON

56th Edition, August 18, 1966

No hazardous changes.

•JACKSONVILLE

54th Edition, April 28, 1966

Delete 77 SUNSWEET arpt 31°35'N, 83°34'W. Delete Monticello arpt 30°32'N, 83°53'W. Add obstn 462' MSL 30°41'00''N, 83°19'02''W. Add obstn 1549' MSL 31°08'-05''N, 84°06'16''W. Add UNICOM St. Marys arpt 30°-45'N, 81°33'W. Add obstn 400' MSL 31°10'56''N, 82°-18'44''W. Add obstn 346' MSL 31°17'53''N, 81°44'09''W.

•KANSAS CITY

58th Edition, August 18, 1966

Delete Rush arpt 39°46'N, 95°15'W. Add UNICOM Civic Memorial arpt 38°53'N, 90°03'W.

•KANSAS CITY LOCAL

36th Edition, August 18, 1966

Correct lctn Berry Arpt to 38°52'N, 94°10'W.

•KLAMATH FALLS

55th Edition, September 15, 1966

No hazardous changes.

KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06'N, 119°46'W. Add Castlegar FM code — — — 49°19'N, 117°38'W. Increase terrain elev at lat 48°25'N & long 114°07'W to 4000'-6000' MSL.

LA GRANDE

45th Edition, July 21, 1966

No hazardous changes.

LAKE HURON

41st Edition, May 26, 1966

Add obstn 1110' MSL 44°54'46''N, 79°23'16''W.

LAKE SUPERIOR

44th Edition, August 18, 1966

No hazardous changes.

•LAKE OF THE WOODS

39th Edition, August 18, 1966

Delete Cache Bay SPB 48°12'N, 91°01'W.

•LEWISTON

45th Edition, April 28, 1966

Change Pennfield Ridge RBn freq 379 to 388. Delete Lewiston non-federal RBn 44°02'56''N, 70°17'16''W. Add New Gloucester non-federal RBn freq 266 ident GLU class MHW 43°59'13''N, 70°19'29''W. Add obstn 660' MSL 44°35'25''N, 69°38'20''W. Add obstn 734' MSL 43°55'53''N, 66°06'07''W. Add UNICOM Island Pond State arpt 44°47'25''N, 71°49'45''W. Add obstn 1323' MSL 44°39'30''N, 68°36'19''W.

•LINCOLN

54th Edition, March 31, 1966

Correct elev Sieber arpt from 572 to 1572. Correct elev ELY arpt from 720 to 1720. Change obstn elev 2529′ MSL to 3030′ MSL 40°40′08″N, 97°10′47″W. Relocate Omaha RBn 41°03′18″N, 95°48′15″W to 41°22′N, 95°57′21″W change ident OMA to OM class MHW to HASB/LOM. Change Raymond VORTAC name to Lincoln ident RAY to LNK. Change freq 353 to 391 Imperial RBn. Delete X–A Ranch arpt 41°55′N, 99°20′W.

•LITTLE ROCK

50th Edition, July 21, 1966

Delete Fort Smith RBn 35°30″N, 94°24′30″W.

•LOS ANGELES

62nd Edition, August 18, 1966

Correct elev NAS Los Alamitos arpt from 25 to 35. Change obstn elev 454′ MSL to 585′ MSL 33°51′35″N, 118°20′56″W.

•MIAMI

54th Edition, September 15, 1966

No hazardous changes.

MILES CITY

45th Edition, April 28, 1966

No hazardous changes.

•MILWAUKEE

60th Edition, May 26, 1966

Delete ctl twr freq 342 DuPage Co. Delete ctl twr freq 396 Kellog. Delete Carm arpt 43°46′N, 88°01′W. Twr comsnd Rock County arpt freqs 121.2, 122.7R. Add obstn 851′ MSL 43°41′49″N, 83°58′48″W. Add UNICOM Cottonwood arpt 42°18′N, 89°08′W. Delete Air City arpt 42°41′N, 87°53′W. Add Sheboygan RBn freq 254 ident SBM class MHW 43°45′44″N, 87°51′03″W. Add obstn 891′ MSL 42°06′15″N, 86°28′19″W. Add obstn 1340′ MSL 43°01′31″N, 89°23′46″W. Add obstn 1126′ MSL 42°27′34′N, 89°01′44′W. Relocate RBn 42°54′32.6″N, 87°53′38.5″W to 42°54′32.6″N, 88°02′27.4″W change name Milwaukee to Mitchell ident MKE to GM class SABH to H/SAB/LOM. Add Alma RBn freq 320 ident AMN class MHW 43°23′08″N, 84°40′27″W. Add UNICOM Greater Rockford arpt 42°12′N, 89°06′W.

•MINOT

44th Edition, September 15, 1966

No hazardous changes.

•MOBILE

59th Edition, July 21, 1966

Delete DF Cairns AAF ctl twr 31°16′N, 85°43′W. Add obstn 641′ MSL 31°56′33″N, 87°04′11″W. Delete Brantley arpt 31°36′02″N, 86°13′50″W. Add obstn 525′ MSL 31°48′45″N, 89°03′21″W. Add obstn 405′ MSL 31°16′50″N, 89°51′12″W.

MT. SHASTA

55th Edition, May 26,1966

Add UNICOM Garberville arpt 40°05′N, 123°49′W. Add UNICOM Fall River Mills arpt 41°01′N, 122°26′W.

MT. WHITNEY

57th Edition, June 23, 1966

Add obstn 2355′ MSL 36°12′52″N, 115°09′18″W. Add UNICOM Gallaher arpt 36°16′N, 119°18′W.

•NASHVILLE

57th Edition, July 21, 1966

Change ctl twr freq 229.6 to 241.0 Godman AAF. Add UNICOM Gallatin Mun 36°23′N, 86°25′W. Delete Gee arpt 36°31′N, 89°43′W.

•NEW ORLEANS

60th Edition, September 15, 1966

No hazardous changes.

•NEW YORK

64th Edition, March 31, 1966

Add obstn 1062′ MSL 40°37′13″N, 75°17′37″W. Add UNICOM Alexandria Field arpt 40°35′15″N, 75°01′00″W. Delete Old Star arpt 40°11′00″N, 74°52′45″W. Change Lancaster Control Tower freq 257.8 to 263.0. Change Westchester Co. ctl twr freq 350.2 to 241.0. Change Olmstead AFB twr hours of opern to 0700–2300. Delete ctl twr freq 223 Allentown Bethlehem Easton. Add obstn 378′ MSL 40°56′10″N, 72°39′12″W. Delete Radle arpt 40°24′48″N, 77°16′15″W. Delete Caka arpt 40°33′N, 74°54′W. Delete Pond Hollow Farm arpt 40°48′55″N, 75°08′00″W. Delete Mountain Bay arpt 41°23′N, 75°14′W. Add UNICOM Trumbull arpt 41°19′45″N, 72°02′45″W. Add obstn 954′ MSL 40°34′18″N, 74°54′22″W. Delete UNICOM East Hampton arpt 40°57′45″N, 72°15′00″W. Add obstn 400′ MSL 40°36′33″N, 74°43′08″W.

•NORFOLK

59th Edition, September 15, 1966

No hazardous changes.

OKLAHOMA CITY

59th Edition, April 28, 1966

Add obstn 2770′ MSL 35°25′25″N, 99°50′30″W. Delete aband apt symbol & type 34°14′N, 98°44′W. Add obstn 1357′ MSL 34°23′28″N, 97°59′36″W. Delete Cowan arpt 34°29′N, 101°49′W. Delete Todd arpt 34°38′N, 101°57′W. Delete Savage arpt 34°20′N, 101°31′W. Delete Tri-State arpt 35°08′N, 101°48′W. Delete ctl twr freq 119.2 Clinton Sherman AFB 35°20′N, 99°12′W. Add obstn 1881′ MSL 35°23′14″N, 97°29′56″W. Add UNICOM Wilbarger arpt 34°14′N, 99°17′W. Add UNICOM Holdenville arpt 35°05′N, 96°25″W.

•ORLANDO

55th Edition, April 28, 1966

Add obstn 375′ MSL 28°36′50″N, 82°12′56″W. Add obstn 435′ MSL 28°48′40″N, 81°52′35″W. Delete Bruce arpt 28°43′N, 81°04′13″W. Add obstn 417′ MSL 28°00′49″N, 80°36′08″W. Delete Spuce Creek arpt 29°04′40″N, 81°02′41″W. Add UNICOM Vandenberg arpt 28°00′50″N, 82°20′40″W. Add obstn 346′ MSL 29°17′47″N, 81°50′08″W. Delete Green Airpark 28°17′53″N, 80°43′08″W.

PHOENIX

55th Edition, July 21, 1966

No hazardous changes.

•POCATELLO

51st Edition, March 31, 1966

Add Teton FM code • — • 43°33'05''N, 110°45'46''W. Add V330 awy Idaho Falls to Jackson. Add V328 awy DuBois to Jackson. Add 700' Transition area 5 mi radius Jackson Hole arpt 43°36'24''N, 110°44'13''W. Add 1200' Transition area 6 mi W and 9 mi E of Jackson VOR 43°36'30''N, 110°44'02''W. 200°T and 020°T bearings from 23 mi S to 11 mi N and within 6 mi N and 9 mi S of Dunoir VOR 282°T and 102°T bearings extending from 8 mi E to 21 mi W of VOR.

•PORTLAND

55th Edition, July 21, 1966

Add UNICOM Hood River County arpt 45°40'N, 121°-32'W. Add ctl zone 5 mi radius Hillsboro arpt 45°32'15'' N, 122°56'30''W with extsn 8 mi S of arpt. See NOTAMs/AIM for CZ efctv hrs. Add standard South alternate V448S awy from Portland to Yakima.

•PRESCOTT

46th Edition, September 15, 1966

No hazardous changes.

RAPID CITY

44th Edition, June 23, 1966

Delete awy bcn site #2B 44°33'06''N, 106°42'28''W.

•RENO

46th Edition, June 23,1966

Ctl twr decmsnd Stead AFB fld clsd. Add area R-4813 from 39°51'N, 118°38'W to 40°01'N, 118°15'W to 39°-52'36''N, 118°01'W thence via 15 mi arc centered at 39°52'36''N, 118°20'27''W to 39°45'50''N, 118°38'W. Add area R-4812 5 mi either side of aline 39°10'N, 118°37'-30''W and 39°13'N, 118°12'42''W bounded on the E by R-4801 on the W by R-4810.

•ROSWELL

55th Edition, June 23, 1966

Add UNICOM Midland Airpark 32°02'N, 102°06'W. Add obstn 864' MSL 33°41'33''N, 95°23'45''W.

SACRAMENTO

56th Edition, June 23, 1966

Ctl twr decomsnd Stead AFB fld clsd. Add UNICOM Garberville arpt 40°05'N, 123°49'W. Add Travis RBn freq 400 ident SU class MHW 38°20'10''N, 121°49'18''W.

•SALINA

55th Edition, September 15, 1966

No hazardous changes.

•SALT LAKE CITY

53rd Edition, May 26, 1966

Change freq 111.8 to 115.2 Meeker VOR.

•SAN ANTONIO

58th Edition, June 23, 1966

Add obstn 636' MSL 29°59'33''N, 95°28'23''W. Add UNICOM Hondo muni arpt 29°21'N, 99°10'W. Delete Arrowhead Ranch arpt 28°15'36''N, 98°33'54''W. Delete Dial Ranch arpt 28°39'40''N, 97°35'57''W. Delete Mangum arpt 28°58'30''N, 95°54'55''W. Add obstn 390' MSL 29°16'46''N, 95°44'26''W. Add obstn 455' MSL 28°56'-44''N, 95°20'12''W. Delete Riverview arpt 29°16'N, 98°36'W.

•SAN DIEGO

60th Edition, August 18, 1966

Change obstn elev 454' MSL to 585' MSL 33°51'35''N, 118°20'56''W. Add obstn elev 139' MSL 33°14'37''N, 115°30'36''W. Add obstn elev 295' MSL 33°28'41''N, 115°51'43''W. Change ctl twr freq 142.74 to 126.2 NAAS Ream.

•SAN FRANCISCO

59th Edition, June 23, 1966

Delete Blackwells arpt 35°37'N, 119°53'W. Add obstn 530' MSL 36°48'18''N, 121°46'50''W.

•SAVANNAH

60th Edition, September 15, 1966

No hazardous changes.

•SEATTLE

59th Edition, June 23, 1966

Add ctl zone 5 mi radius Kitsap Co arpt 47°29'35''N, 122°45'35''W with extsn 8 mi SW of RBn. See NOTAMs/AIM for CZ efctv hrs. Add standard South alternate V448S awy from Portland to Yakima.

•SHREVEPORT

51st Edition, June 23, 1966

Add obstn 856' MSL 33°09'35''N, 94°56'12''W. Change ctl twr freq 119.7 to 118.9 at Gregg County. Delete Arneson arpt 32°26'N, 91°19'W. Add ctl zone 5 mi radius Greenville Muni arpt 33°29'05''N, 90°59'06''W with extsn 8.5 mi N of VOR efctv 0700 to 2000 hrs daily. Delete Mulinax arpt 35°56'N, 95°16'W. Add obstn 462' MSL 33°39'34''N, 91°21'48''W. Add obstn 864' MSL 33°41'33''N, 95°23'45''W.

SIOUX CITY

43rd Edition, May 26, 1966

Add UNICOM Lamars arpt 42°47'N, 96°12'W.

•SPOKANE

53rd Edition, June 23, 1966

Ctl twr decomsnd Larson AFB 47°12'34''N, 119°18'51'' W. Delete Larson RBn 47°06'57''N, 119°16'24''W. Delete Larson FM code — — 47°06'57''N, 119°16'24''W. Delete Larson (AF) VOR 47°05'41''N, 119°15'41''W.

Add ctl zone 5 mi radius Pullman-Moscow Regional arpt 46°40′25″N, 117°13′30″W with extsn 8 mi SW of VOR. see NOTAMs/AIM for CZ efctv hrs. Add Moses Lake RBn freq 408 ident MW class MHW 47°06′57″N, 119°-16′24″W. Add Moses Lake VOR freq 117.0 ident MHW class LVOR mag var 21°E 47°05′42″N, 119°15′41″W. Twr comsnd Grant County arpt freq 118.1 257.8 47°-03′57″N, 119°18′51″W.

•TRINIDAD

44th Edition, September 15, 1966

No hazardous changes.

TULSA

57th Edition, April 28, 1966

Add obstn 1400′ MSL 37°58′30″N, 92°53′36″W. Delete rotating bcn Bismarck arpt 37°45′N, 90°37′W. Add obstn 1835′ MSL 36°10′02″N, 94°04′34″W. Delete Berryville arpt 36°22′N, 93°35′W. Add obstn 2400′ MSL 36°-09′N, 93°14′53″W. Delete Red Bud arpt 36°16′N, 92° 29′W. Delete Reeves arpt 36°04′N, 93°42′W. Add obstn 1472′ MSL 37°49′43″N, 94°41′10″W. Add UNICOM Reynolds arpt 36°06′N, 90°07′W.

•TWIN CITIES

52nd Edition, April 28, 1966

Add obstn 1835′ MSL 45°55′39″N, 90°27′42″W. Delete ctl twr freq 257 at Crystal. Change Minneapolis RBn ident MSP to MS class SABH to H/SAB/LOM 44°51′-28.1″N, 93°08′54.5″W to 44°49′33.1N, 93°05′27.6″W. Add Marshfield RBn freq 391 ident MFI class MHW 44°38′-28″N, 90°11′14″W. Add New Ulm RBn freq 272 ident ULM class MHW 44°19′25″N, 94°30′02″W. Delete Robbel arpt 45°56′N, 90°28′W. Add 700′ Transition area 5 mi radius Marshfield Mun arpt 44°38′10″N, 90°11′-20″W with extsn 8 mi SW of arpt. Add 1200′ Transition area 5 mi NW and 8 mi SE of 216°T bearing from Marshfield Mun arpt to 12 mi SW.

•WASHINGTON

63rd Edition, March 31, 1966

Change Andrews AFB/NAF ctl twr freq 126.2 to 118.4. Change Lancaster arpt ctl twr freq 257.8 to 263.0. Delete Du Pont arpt 38°38′N, 75°38′W. Delete ctl twr freq 121.3 at MCAS Quantico. Change ctl twr freq 119.7 to 120.1 Dulles Intl. Delete Rutherford arpt 39°20′N, 76°45′W. Add obstn 365′ MSL 39°22′28″N, 74°33′56″W. Add obstn 331′ MSL 38°57′21″N, 76°21′-08″W. Add obstn 498′ MSL 38°12′44″N, 77°21′28″W. Delete Quantico MCAS LFR 38°26′N, 77°19′W. Add T-line and type CAUTION 39°07′00″N, 77°30′13″W. Add obstn 304′ MSL 39°38′10″N, 74°17′43″W. Add obstn 589′ MSL 39°26′20″N, 74°52′03″W.

•WICHITA

56th Edition, June 23, 1966

Delete Vance RBn 36°16′N, 97°55′W. Add UNICOM Sunray arpt 36°02′N, 101°50′W. Add UNICOM Ulysess arpt 37°36′N, 101°22′W. Add UNICOM Piper arpt 37°-45′N, 97°13′W. Add Perryton non-federal RBn freq 266 ident PYX class MHW 36°24′46″N, 100°44′17″W. Delete Fincham arpt 37°49′N, 98°46′W.

WILLISTON

40th Edition, July 21, 1966

No hazardous changes.

•WINSTON-SALEM

57th Edition, March 31, 1966

Delete Griffins arpt 36°11′N, 79°53′W. Change Evington RBn freq 393 to 385. Change obstn elev 2049′ MSL to 2420′ MSL 36°32′N, 82°35′W. Add UNICOM Roanoke Mun 37°19′26″N, 79°58′33″W. Add obstn 1411′ MSL 36°04′12″N, 83°58′19″W. Add obstn 2038′ MSL UC 36°06′58″N, 82°26′44″W. Add obstn 727′ MSL 37°49′13″N, 78°08′22″W. Add UNICOM Hinton-Alderson arpt 37°41′N, 80°42′W.

•YELLOWSTONE PARK

44th Edition, September 15, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

GADSDEN VORTAC: DME unusable beyond 20 nmi 140-195°.

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000' MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000' MSL 190-290°: below 7000' MSL 320-345° and 005-035°; below 8000' MSL 035-060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500' MSL; 175-240°, 090-145° below 10,500' MSL 040-090°, below 14,000' MSL 360-040°.

●FLAGSTAFF VOR: VOR unusable at 40 nmi below 18,000' MSL 325°-340°; below 22,000' MSL 340°-360°; below 18,000' MSL 360°-025°; below 11,500' 025°-305°; below 12,500' MSL 305°-325°.

●GRAND CANYON VOR: VOR unusable beyond 40 nmi below 10,000' MSL 177°-210°; below 11,500' MSL 210°-336°; below 13,000' MSL 336°-346°; below 11,500' 346°-120°; below 11,500' MSL 153°-177°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000' MSL beyond 40 nmi from 195-230°.

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000' MSL 152-170° and 200-210° and beyond 6 nmi below 7000' MSL 078-125°.

PRESCOTT VORTAC: VORTAC unusable beyond 40 nmi below 11,000' MSL 145-155° and 175-200°; below 17,000' MSL 200-225°; below 12,000' MSL 225-235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON VORTAC: VORTAC unusable beyond 40 nmi below 15,000' MSL 145-190°; below 14,000' 190-255°; below 10,500' MSL 350-145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000' MSL from 320-045°; below 16,500' MSL 045-065°; below 15,000' MSL 065-080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000' MSL 280-300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346-311° beyond 20 nmi below 3,500' MSL; 312-345° beyond 15 nmi below 5,500' MSL and beyond 30 nmi below 7,500' MSL. MSL.

CALIFORNIA

AVENAL VORTAC: DME unusable beyond 40 nmi below 3000' MSL 320-065° below 4000' MSL, 065-095° below 4500' MSL, 095-125° below 8500' MSL, 125-170° below 7500' MSL, 170-198° below 7000' MSL, 195-230° below 8000' MSL, 230-305° below 8000' MSL.

BAKERSFIELD VORTAC: VOR portion 121° rad V165 to Arvin Int unusable below 4000'.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000' MSL 324-018° below 9000' MSL 189-217°, below 10,000' MSL 175-189°, below 15,000' MSL 277-324°.

BIG SUR VORTAC: DME unusable beyond 40 nmi below 8000' MSL 085-120° below 7000' MSL 120-130° below 6000' MSL 290-320° and below 9000' MSL 320-085°.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000' and below 280-290° and 14,000' and below 290-350°

FORTUNA VORTAC: DME unusable below 9500' MSL 050-070° and below 5000' MSL 150-200° beyond 40 nmi.

FRESNO VORTAC: DME unusable below 4000' MSL 200-250°.

GLENDALE RBN: E facil unusable beyond 2 mi from 320-065° and from 130-235°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000' MSL 265-290° and 15,000' MSL 290-310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000' MSL 265-310° below 10,500' MSL 350-040°; below 5500' MSL 125-155°; below 10,500' MSL 155-170° below 14,500' MSL 170-219°; below 31,000' MSL 219-250°; below 25,000' MSL 250-265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180-230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180-230 Incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180-230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180- 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000' MSL from 135-180°, below 7000' MSL from 268-290°. V-201 011° rad beyond 20 nmi below 9000' MSL. DME unusable beyond 40 nmi below 3500' MSL from 180-210°.

NAPA VORTAC: DME unusable beyond 40 nmi below 7500' from 280-045°.

NEEDLES VORTAC: VORTAC unusable below 11,500' MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: DME unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005-060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259-277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235-290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SAN LUIS OBISPO VORTAC: VOR unusable below 7000′ MSL beyond 7 nmi from 300–090°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unustble beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265–280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115–125°, beyond 15 mi from 125–135°, beyond 15 mi from 225–235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

CROSS CITY VOR: VOR unusable beyond 16 nmi below 2500′ MSL on the 149° rad.

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

TALLAHASSEE VOR: VOR unusable above 17,500′ MSL on 287 rad and beyond 50 mi on 090 rad.

GEORGIA

AUGUSTA VORTAC: VOR unusable 357–002°. Use Greenwood VOR 180° radial for V-185 between Augusta VORTAC and Greenwood VOR, MEA 2,300′ MSL.

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085-120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 138-156°, 170–218°, 250–255°, 285-315°, and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115-210° below 2500′ MSL.

IOWA

●ESTHERVILLE VOR: VOR unusable 220–240° beyond 15 nmi.

WATERLOO VORTAC: DME unusable beyond 15 nmi 335–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 288° rad beyond 34 mi above 18,000′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable in the following areas: 010–045° beyond 65 mi 45,000′ MSL, 000–026° beyond 10 mi below 18,000′ MSL, 026–045° beyond 22 mi below 3500′ MSL, 026–045° beyond 26 mi below 4500′ MSL, 026–045° beyond 28 mi below 5500′ MSL, 026–045° beyond 32 mi below 7500′ MSL, 045–360° beyond 26 mi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL

MICHIGAN

ALPENA VORTAC: VOR unusable 360°–065°. DME unusable 260° to 280° below 4000′ MSL beyond 30 nmi.

ESCANABA VOR: VOR unusable from 140–170°, 190–235°, 315–335° beyond 10 NM airway V7 Escanaba 216° rad change over point 10 NM SW Escanaba VOR.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–095° beyond 15 nmi below 6000′ MSL. 090–103° beyond 30 nmi below 4000′ 104–190° beyond 25 nmi below 3000′; 190–200° below 3000′; 200–330° beyond 25 nmi below 3000′; 331–036° beyond 25 nmi below 3500′.

MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335–350° beyond 30 mi below 2,900′ MSL. DME unusable 200–290° beyond 30 nmi below 4000′ MSL, from 290350° beyond 30 nmi below 4500′ MSL, from 350–050° beyond 30 nmi below 4000′ MSL.

SAWYER VOR: VOR unusable 090–110° and 270–310°.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000′ MSL within 30 mi; 242–255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185–265° beyond 20 mi below 3,000′ MSL; 265–185° beyond 22 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3.500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252–260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000′ MSL.

BUTTE VORTAC: VORTAC unusable following areas: 005–120° beyond 20 nmi below 10,000′ MSL; and 120–325° beyond 20 nmi below 11,000 MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250–030° beyond 25 mi below 10,500′ MSL, 030–250° beyond 25 mi below 12,000′ MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235–245° beyond 10 mi below 6,800′ MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360–065° beyond 20 mi below 10,000′ MSL; 065–090° beyond 25 mi below 11,000′ MSL; 110–120° beyond 20 mi below 16,000′ MSL; 120–240° beyond 20 mi below 10,000′ MSL; 240–320° beyond 25 mi below 10,000′ MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000′ MSL.

MALMSTROM VOR: VOR unusable 250-280° beyond 15 nmi below 7000′ MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345–060° beyond 15 mi; 060–095° beyond 31 mi below 12,000′ MSL; 095–165° beyond 20 mi below 10,000′ MSL; 165–270° beyond 20 mi below 12,000′ MSL; 285–315° beyond 20 mi below 12,000′ MSL; 315–345° beyond 20 mi; VOR below 11,000′ MSL DME below 14,000′ MSL. Possible momentary VOR flag activity on V-2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360–040° beyond 30 mi below 14,500′ MSL; 040–055° beyond 30 mi below 12,000′ MSL; 120–160° beyond 30 mi below 14,500′ MSL; 215-230° beyond 20 mi below 14,500′ MSL; 230–285° beyond 35 mi below 14,500′ MSL; 285–360° beyond 30 mi below 13,500′ MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36–55 mi below 3,600′ MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285°.

BEATTY VORTAC: VOR restricted below 8000′ beyond 27 nmi, 060–360°; below 10,000′ beyond 10 nmi, 360–060°.

COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced comerage. DME unusable beyond 15 nmi below 14,000′ MSL 065–075°; below 17,000′ MSL 150–235°; below 16,000′ MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 nmi 260–290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240–320°; below 14,000′ MSL 170–220° and 320–340°; below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010–120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,500′ MSL from 220° to 255°, below 14,500′ MSL from 255° to 270°, below 16,000′ MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000′ MSL from 055 to 100°; 14,000′ MSL from 100 to 110°; 17,000′ MSL from 110 to 135°; 16,000′ MSL from 285 to 340°.

RENO RBN: H facility unusable 170–270° beyond 20 nmi, 270°–300° beyond 30 nmi and 300–010° beyond 23 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000′. DME unusable below 14,500′ beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500′ MSL beyond 40 nmi from 020–075° and 220–235°.

SPARKS RBN: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH VORTAC: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000′ MSL 005–030°: below 22,500, 185–210°; below 15,000, 335–350°; and below 12,000′, 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000′.

LEBANON VOR : VOR unusable 110–115° beyond 35 mi below 6,900′ MSL.

NEW JERSEY

ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1500′ MSL.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000′ MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000′ MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000′ MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500′ MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000′ MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000′ MSL; 001–025° beyond 20 nmi below 13,300′ MSL; 150–175° beyond 30 nmi below 10,500′ MSL; 176–210° beyond 20 nmi below 10,500′ MSL; 240–265° beyond 35 nmi below 10,700′ MSL; unusable 001–010°.

SANTA FE VORTAC: VOR unusable 015–030° beyond 30 mi at MEA.

NEW YORK

ALBANY VORTAC: VOR unusable 115–135° beyond 10 mi.

BINGHAMPTON RBN: Erratic ADF action 4–13 mi SSE of facility at 3,500′ MSL.

CANARSIE VOR: VOR unusable 060–095° beyond 15 mi below 4,000′ MSL.

DEER PARK VORTAC: VOR unusable following areas: 070–180° beyond 35 mi below 1,700′ MSL; 180–240° beyond 30 mi below 1,700′ MSL; 240–350° beyond 25

mi below 2,200′ MSL; and 350–040° beyond 30 mi below 2,200′ MSL.

DUNKIRK VOR: VOR unusable 120–180° beyond 22 mi below 4,000′ MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500′ MSL in following areas: 115–140° beyond 35 mi; 140–160° beyond 30 mi; 160–180° beyond 35 mi; 190–210° beyond 30 mi; and 210–215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305–315° beyond 35 mi below 7,000′; 315–350° beyond 30 mi below 8,000′.

HAMPTON VORTAC: DME unusable following areas: 280–325° beyond 35 mi below 1,700′ MSL; and 325–355° beyond 30 mi below 2,000′ MSL.

HUGUENOT VORTAC: VOR unusable 210–230° beyond 20 mi below 6,500′ MSL.

ITHACA VOR: VOR unusable 360–150° beyond 25 mi below 3,800′ MSL.

KENNEDY VORTAC: VOR unusable below 1,500′ MSL in the following areas: 015–030° beyond 30 mi; 030–045° beyond 26 mi; 060–075° beyond 24 mi; 075–100° beyond 30 mi; 100–150° beyond 28 mi; 150–165° beyond 26 mi; 165–215° beyond 30 mi; 215–270° beyond 26 mi; and 350–015° beyond 35 mi. VOR unusable below 2,000′ MSL in following areas: 045–060° beyond 24 mi; 270–340° beyond 26 mi; and 340–350° beyond 30 mi. DME unusable within 9 nmi of VORTAC.

KINGSTON VOR: VOR unusable 045–050° beyond 35 mi below 4,300′ MSL and 070–140° beyond 30 mi below 3,400′ MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015–025° beyond 20 mi below 1,900′ MSL; 025–045° beyond 35 mi below 2,700′ MSL; 065–075° beyond 30 mi below 1,700′ MSL; 075–135° beyond 25 mi below 1,700′ MSL; 135–145° beyond 35 mi below 1,700′ MSL; 165–205° beyond 15 mi below 1,700′ MSL; 205–215° beyond 35 mi below 1,700′ MSL; 215–220° beyond 30 mi below 1,700′ MSL; 220–230° beyond 25 mi below 1,700′ MSL; 230–240° beyond 30 mi below 1,700′ MSL; 240–250° beyond 20 mi below 1,700′ MSL; 250–260° beyond 10 mi below 2,500′ MSL; 260–270° beyond 20 mi below 1,700′ MSL; 270–285° beyond 25 mi below 1,800′ MSL; 285–295° beyond 30 mi below 2,700′ MSL; 295–305° beyond 35 mi below 2,700′ MSL; 315–325° beyond 35 mi below 3,200′ MSL; 325–005° beyond 25 mi below 2,700′ MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260–270° beyond 35 mi below 6,000′ MSL.

ROCHESTER VOR: VOR unusable 045–065° beyond 12 mi.

SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360–015° below 5000′ MSL; 015–025° below 4500′ MSL; 025–100° below 5000′ MSL; 100–165° below 9000′ MSL; 165–180° below 7000′ MSL; 180–190° below 6500′ MSL; 190–200° below 7000′ MSL; 200–220° below 6000′ MSL; 220–240° below 5000′ MSL; 240–295° below 5500′ MSL; 295–305° below 7000′ MSL; 305–360° below 4500′ MSL.

NORTH CAROLINA

●CHARLOTTE VORTAC: VOR unusable 010°–050° beyond 20 nmi.

ELIZABETH CITY VOR: VOR unusable 026–042° and 085–100° all altitudes; 276–312° below 5000′ MSL. Use Franklin VOR 130° radial for V-290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500′.

●GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290–320° and 100–145°.

GREENSBORO VORTAC: VOR unusable 350–010° beyond 30 mi.

NORTH DAKOTA

DICKINSON VORTAC: VOR unusable 090–120° between FL 180 and FL 310 beyond 40 mi. GTF Center RADAR service available.

OHIO

AKRON VORTAC: VOR unusable 030–080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500′ MSL.

BELLAIRE VORTAC: VOR unusable 325–345° below 6000′ MSL.

BRIGGS VORTAC: VOR unusable 330–010°, 120–145° and 305–325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033–070°, 085–135°, 155–225°, 250–280° and 295–023°.

STRONGSVILLE VOR: VOR unusable 080–200° beyond 35 nmi.

OREGON

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000′ MSL 020–085°; 18,000′ MSL 085–120°; 12,000′ MSL 190–340°; 14,000′ MSL 340–020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 600′ MSL 150–170°; 6000′ MSL 320–350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000′.

REDMOND VORTAC: VORTAC unusable below 11,000′ MSL 190–210′; below 13,000′ MSL 210–240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020–060° beyond 26 mi below 3,500′ MSL.

ALTOONA VOR: VOR unusable in the following areas: 070–100° beyond 18 mi below 3,500′ MSL; 100–160° beyond 30 mi below 3,500′ MSL; 200–310° beyond 30 mi below 4,500′ MSL; 310–350° beyond 15 mi all altitudes; 350–010° beyond 30 mi below 4,000′ MSL.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VORTAC: VOR unusable 070–085° beyond 10 mi at MOCA.

CLARION VOR: VOR unusable 215–223°.

ARRISBURG VORTAC: VOR unusable in following areas: 105–140° beyond 26 mi; 140–165° beyond 30 mi; and 195–230° beyond 28 mi. DME unusable 325–360° beyond 30 mi; and 360–025° beyond 35 mi.

MPERIAL VORTAC: VOR unusable 150–170° below 8,000′ MSL and 345–360° below 14,500′ MSL.

ANCASTER VOR: VOR unusable in following areas: 190–220° beyond 25 mi below 3,000′ MSL; 220–250° beyond 25 mi below 4,000′ MSL; 320–340° beyond 15 mi below 5,000′ MSL; 320–340° beyond 25 mi below 6,000′ MSL.

ATROBE VOR: VOR unusable beyond 20 mi.

ELINSGROVE VORTAC: VOR unusable in following areas: 105–115° beyond 26 mi below 3,000′ MSL; 210–230° beyond 35 mi below 2,500′ MSL; and 250–285° beyond 26 mi below 3,400′ MSL. DME unusable 100–115° beyond 30 mi below 3,000′ MSL; 115–170° beyond 35 mi below 2,900′ MSL; 190–300° beyond 35 mi below 3,500′ MSL.

ARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250–265° beyond 17 mi; 265–280° beyond 10 mi; and 280–290° beyond 17 mi. DME unusable 225–275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

ROVIDENCE VORTAC: VOR and DME unusable 220–310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

LLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

LORENCE VORTAC: VOR unusable 360–010° beyond 20 mi below 5000′ MSL.

MYRTLE BEACH VOR: VOR unusable 220–245° beyond 15 nmi below 2500′ MSL; 350–015° beyond 10 nmi below 5000′ MSL.

TEXAS

MARILLO VORTAC: DME unusable 110–235° beyond 15 NM below 7000′ MSL.

USTIN VORTAC: VOR unusable 260–320° beyond 35 mi below 3,500′ MSL.

L PASO VORTAC: DME unusable 265–300′ beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085–210° beyond 35 mi below 2,500′ MSL.

ALT FLAT VORTAC: VORTAC unusable 031–049° beyond 30 NM below 15,000′ MSL.

UTAH

EDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi 090–125° and beyond 35 nmi 125–150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040–080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330–005° and below 13,500′ MSL beyond 40 nmi from 170–200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180–220°; below 12,000′ MSL 280–310°: below 11,000′ MSL 310–330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025–115°, 30 nmi, 235–330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360–055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010–035°; below 16,000′ MSL 035–050°; below 15,000′ MSL 275–285°; below 14,000′ MSL 285–295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010–020°; below 20,000′ MSL 020–030°; below 23,000′ MSL 030–060°; below 24,000′ MSL 060–080°; below 19,000′ MSL 080–095°; below 17,000′ MSL 095–125°; below 16,000′ MSL 125–140°; below 16,000′ MSL 195–210°; below 10,000′ MSL 280–290°; below 16,000′ MSL 350–010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220–260°.

VERMONT

BURLINGTON VOR: VOR unusable 080–155° beyond 30 mi below 9,000′.

MONTPELLER VOR: VOR unusable 205–280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230–270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360–010° beyond 5 nmi, 010–020° beyond 10 nmi, 020–030° beyond 20 nmi, 030–040° beyond 10 nmi, 040–060° beyond 20 nmi, 190–210° beyond 5 nmi, 230–240° beyond 20 nmi, 240–300° beyond 5 nmi, 310–330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050–075° beyond 30 mi; 075–095° beyond 20 mi; 105–120° beyond 35 mi; and 165–215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355–010° beyond 18 nmi below MEA 030–070° beyond 20 nmi below MEA 170–190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215–250° beyond 8 mi below 1,800′ MSL and 215-270° between 14,500–18,000′ MSL.

LINDEN VORTAC: DME unusable 140–180° beyond 25 mi below 3,500′ MSL and 180–225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110–220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 286–360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130-150°, 4500' MSL and 150-290°. 4000' MSL. VOR intermittent roughness may be observed on V-23 below 6000' MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RBN: H facil unusable 100-130° below 6500' MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500' MSL at 40 nmi 210-260°. TACAN unusable below 15,000' MSL 260-270° at 40 nmi; below 9500' MSL at 35 nmi 270-280°. VOR 348° rad unusable below 4500' VOR intermittent roughness may be observed on V287, 148° rad below 7000' from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500' MSL beyond 40 nmi 150-210°; below 5500' MSL 210-270°. Coverage within R-6715 from 270-320° not flt checked.

PORT ANGELSS VOR: VOR coverage 40 nmi; 220-110° at 7000'; 110-140° at 14,500'; 140-150° at 20,500'; 150-170 °at 29,000'; 170-190° at 20,500; 190-220° at 16,000'.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000' MSL from 158-165° beyond 20 nmi below 12,000' MSL from 305-355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000' MSL and beyond 50 nmi below 18,000' MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000', 355-020° and 148-176°; below 7500' from 130-150°; below 10,500' from 020-060° and 110-130°; below 12,700' from 065-110°.

WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000' MSL 000-020° beyond 30 nmi below 20,000' MSL 020-075° beyond 40 nmi below 14,000' MSL 075-090° below 18,000' MSL 090-190° below 19,000' MSL 190-240°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325-350° beyond 20 mi below 5,000' MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100-150° and 230-060° beyond 20 mi below 3,300' MSL.

TIMMERMAN VOR: VOR unusable 300-310° beyond 35 mi below 3,400' MSL.

WAUSAU VORTAC: DME unusable 300-310° beyond 30 nmi below 3000' MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion on V-85 20-25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000' MSL 160-175°; below 15,000' MSL 175-200° and below 16,500' MSL 200-230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Aberdeen, S.D.: 301°; over apch end rnwy 30; 1700′.

●**Abilene, Tex.** (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom Lake; 2800′. Alternate for lgt acft 099°; 9 NM clt twr and bcn; 2800′.

Alexander, La. (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Alliance, Nebr.: 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

●**Augusta, Ga.** (Bush Fld): 140°; directly over No. 17 of rnwy 17; 1200′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Battle Creek, Mich.: 262°; 11 mi from VORTAC over power house stacks 1 mi E of Comstock, Mich.; 2000′.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16–34; 1000′ MSL.

Bemidji, Minn: 131°; over apch end rnwy 13; 1800′.

●**Big Spring, Tex:** 199°; 11.7 mi, over the rdo bcn; 3600′.

Billings, Mont: 073°; over int of rnwys 22–27; 4600′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

●**Blytheville, Ark.:** 094°; 5.8 mi, over hangar adj to Admin Bldg; 1300′.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brainerd, Minn.: 294° over centerline apch end rnwy 30; 1800′.

●**Brownwood, Tex.:** 169°; 6.2 mi over arpt bcn; 2000′.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

Burlington, Iowa: 296°; over rdo twr 8 nmi NNW Burlington Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500′.

Cape Girardeau, Mo.: 032°; over smoke stack 3.2 NM NNE; 1700′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21–25–30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 13.5 nmi; 1500′.

●**Colorado Springs, Colo.** (Peterson Fld): 320°; over microwave twr, 6.8 NM; 9000′.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.; 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

Crestview, Fla. 106°; over rot bcn twr; 300′.

● **Crossville, Tenn** (Meml Arpt): 333°; 11 nmi over metal hangar; 2900′.

Cut Bank, Mont: 311°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 and 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Des Moines, Iowa: 293°; over grain elev Cummings, Iowa; 2000′; 5.5 NM from VOR.

Devils Lake, N. Dak.: 178°; 7.2 nmi over 2087′ MSL rdo twr; 2600′.

● **Dublin, Ga.** (Muni): 069°; 7.8 NM, over SW end NE/SW rnwy; 1400′.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

● **El Dorado, Ark.** (Goodwin Fld): 004°; 6 NM, over white water twr in Smackover; 1500′.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

El Paso, Tex.: 232°; over water twr, 2 mi SE of arpt; 5000′.

El Toro MCAS, Calif (Orange City): 254°; over int rnwys. 19R and midfld txwys; 200′.

Emporia, Kans.: 047°; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evansville, Ind. (Dress Memorial): 056°; 13 miles over intersection E/W and NE/SW runways; 2000′.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR; 2300′.

● **Fayetteville, Ark.:** 183°; 14.3 mi, white circle on arpt; 2500′.

● **Fayetteville, N.C.:** 239°; 8 NM, over water twr at Parktown, N.C.; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

Flint, Mich (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E–W hvy dist 4.9 nmi from transmitter.

● **Fort Smith, Ark.:** 233°; 5.2 NM, water tank at N edge of arpt; 1500′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800′.

Fulton, Ga.: 288° over water tank 2.4 NM NW side of arpt; 2000′ MSL.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nmi; 4000′.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE–VOR; 2000′.

Grand Island, Nebr.: 142°; over smoke stack 5.5 nmi from VOR; 3100′.

● **Grand Junction, Colo.** (Walker Fld): 059°; int rnwys 22 and 29; 6500′.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000′.

● **Greeley, Colo.** (Weld Co. Arpt): GLL 205°; 5.8 NM, over Trml Bldg; 6100′.

Hallsville, Mo.: 225°; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hastings, Nebr.: 266°; 11 nmi over RR crossing in center of town of Kenesaw; 3200′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt 10 nmi, 800′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

● **Hickory, N.C.** (Muni): 225°; 10.2 NM, over end rnwy 24; 2200′.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 20 nmi from the VOR.

● **Hobart, Okla.:** 353°; 7 mi, centerline of N/S rnwy; 2500′.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Hutchinson, Kans.: 033°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Iowa City, Iowa: 019°; over arpt bcn; 2000′.

Jack's Creek, Tenn. (McKellar): 267°; over bcn twr above arpt 27.5 NM; 1500′.

Jackson, Miss. (Hawkins): 189°; over int rnwys 11–29 and 34–16. 10.8 nmi

Janesville, Wis. (Rock Co. Arpt): 034°; over center of apch end of rnwy 04; 1600′.

Jefferson City, Mo.: 123°; 9.1 NM over hwy bridge on Osage rvr; 2500′ MSL.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500′.

Kalispell, Mont (Flathead Co. Arpt): 314°; apch end rnwy 9; 4000′.

Kearney, Nebr: 215°; over rdo twr KGFW, 4.8 NM SW of arpt; 3000′.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt. 17.0 nmi from HBG VOR, 800′.

Lawrenceville, Va.: 123°; over arpt bcn; 1500′.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 050°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000′.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Manhattan, Kans. (Mun): 062°; 6 nmi over RR bridge SE; 2,500′.

Manitowoc: 162°; over Manitowoc Portland Cement Co. Stack 1.9 mi; 1900′.

Marion, Ill: 274°; int rnwys 6–24 and 18–36 at Southern Arpt; 12 NM W; 1000′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

Maxwell, Calif. (Willows-Glen Co. Arpt): 342°; over apch end rnwy 34; 600′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

McCook, Nebr.: 311°; 8.5 nmi over int of E/W and NW/SE rnwys; 3500′.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis.: 134°; 30 nmi over Horlick-Racine arpt; 2100′.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

●**Monore, La.:** 025°; 6.25 NM, over watertower 1 NM No. of arpt; 1100′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys: 3500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

Monticello, Ark.: 305°; 5.7 nmi over white water twr; 1500′.

Muncie, Ind.: 179°; 8 nmi, between Cowan and Oakville, Ind.; 2500′ MSL.

Muskegon, Mich. (County): 256°; over Muskegon LFR; 1500′.

●**Myrtle Beach, S.C.** (Crescent Beach Arpt): 238°; 6 mi, over silver water tank; 1100′.

Napa, Calif.: 046°; over arpt bcn; 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi NE of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iowa; 2500′.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

●**New Bern, N.C.:** 261°; 11 NM, over int of E/W rnwys Oak Grove (navy) arpt; 1100′.

New Orleans, La. (Lakefront Arpt): 081°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton, Nebr.; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

Nortth Platte, Nebr. (Lee Bird): 083°; over water twr Brady, Nebr.; 4000′.

●**Okmulgee, Okla.:** 229°; 6 NM, smoke stack in Phillips refinery yard; 1900′.

Omaha, Nebr. (Eppley Fld); 310°; centerline of SE end of NW/SE rnwy.

O'Neil, Nebr.: 117°; at intersection of E/W road and the railroad ½ nmi SE of Inman, Nebr.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 3.5 nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Park Rapids, Minn.: 208°; over northern most of two twrs 5.2 nmi; 2100′.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Co. Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 3300′.

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

●**Pinehurst, N.C.** (Southern Pines Arpt): 086°; 9.5 NM, over windsock on top of hangar; 1500′.

●**Plainview, Tex.** (Hale Co.): 024°; 6 NM, int rnwys 4-22 and 12-30; 4400'.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500'.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450'.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800'.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000'.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500'.

Prescott, Ariz.: 124°; rnwy 3-21 and 12-30 intersection; 5500'.

Presque Isle, Me. (Loring AFB): 184°; Spragueville LFR site; 2000'.

Princenton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000'.

●**Pueblo, Colo.** (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 NM NW of arpt; 7300'.

●**Quitman, Tex.:** 241°; 14.5 mi, water tank in town of Alba, Tex.; 1500'.

Rawlings, Wyo. (Muni): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300'.

Raymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500'.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500'.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000'.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500'.

Roberts, Ill.: 074°; over int E/W highway, N/S RR ½ mi N Buckley, Ill; 1600'.

Rochester, Minn.: 024°; int rnwys 13-31 and 2-20 8.5 NM; 3000'.

Roswell, N. Mex.: 027°; over apch end rnwy 3; 4000'.

Russell, Kans.: 092°; over water twr in center of town of Wilson, Kans.

Sacramento, Calif.: 015°; apch end rnwy 02; 100'.

Saginaw, Mich. (Tri-City): 058°; 6.7 mi NE of MBS VOR over hwy int US #10 and I 75; 1700'.

St. Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

Salina, Kans.: 117°; over grain elevator town of Kipp 10 nmi; 2500'.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400'.

Samsville, Ill.:064°; over int at rnwys 4-22 and 13-31 at Mt. Carmel Mun Arpt., Ill.; 1500'.

Sault Ste. Marie, Mich. (Mun): 336°; int E-W and NW/SE rnwys; 2100'.

●**Sayre, Okla.** (Muni): 175°; 8 mi, over rot bcn; 3000'.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 5 nmi; 5000 MSL.

●**Shreveport, La.** (Downtown): 290°; 10 NM, over white water twr; 1500'.

●**Shreveport, La.** (Greater Shreveport): 175°; 19.3 mi, over Admin Bldg; 1200'.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500'.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900'.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500'.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000'.

●**Sulphur Springs, Tex.:** 223°; 7 mi, over projector booth and snackbar within outdoor movie; 1600'.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000'.

Talladega, Ala.: 029°; over center of segmented circle on Anniston, Ala. Arpt.; 2000' MSL.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000'.

●**Texarkana, Ark.:** 122°; 5.1 mi, over int rnwys 13-31 and 4-22; 1400'.

Thibodaux, La.: 117°; over intersection of rnwys 17-35 and 11-29 on Houma Mun Arpt.

Thief River Falls Minn.: 124°; over RR & hiway crossing adj Hazel, Minn.; 2000'.

●**Toccoa, Ga.:** 179°; 6 NM, over arpt bcn; 2000'.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S-E/W rnwys; 1600'.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600'.

Tucson, Ariz.: 258°; main rnwy intersection; 2800'.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500'.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

●**Vienna, Ga.** (Cordele Arpt): 226°; 19 NM, over center of NE/SW rnwy; 1300'.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000'.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000'.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000'.

Wichita, Kans.: 162°; centerline of NW end of NW/SE rnwy.

●**Wichita Falls, Tex.:** 011°; 8 NM, at bridge over Red River; 2100'.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000'.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11: 2600'.

●**Wilmington, N.C.** (New Hanover Co.): 204°; 5.5 NM over wea radar ant on arpt; 1100'.

●**Wink, Tex.** (Winkler Co.): 149°; 5.9 NM, over int rnwys 22 and 13; 3900'.

Winner, S.D. (Mun): 201°; over center of race track 7.8 nmi; 3000'.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600'.

Winslow, Ariz.: 106°; intersection rnwys 4-11; 5100'.

●**Winston-Salem, N.C.** (Smith-Reynolds): 295° (GSO VORTAC); 13.5 NM, over ctl twr; 2000'.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800'.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600'.

Yankton, S.D.: 257°; 7 nmi over twr; 2500'.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17-35; 400'.

GROUND

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN): 207°; lctd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt): 002°; S–end on curve of taxiway 50′ W apch end rnwy 35 centerline.

●**Anderson, S.C.** (Muni): 039°; 6 NM, on ramp in front of Trml Bldg.

●**Ardmore, Okla.** (Muni): 042°; 9 mi; adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l): Lctn #1–293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

●**Bartlesville, Okla.** (Phillips): 166°; 4 mi, opposite Trml on parallel taxi strip.

Beaumont, Tex. (Jefferson County): 051°; W edge of N end of parking ramp.

●**Big Spring, Tex.** (Howard County): 140°; 5.1 mi, ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

Bismarck, N. Dak: 275°; N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 023°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City): 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and twr bldg on ramp.

Cedar Rapids, Iowa; 080°; rnwy runup pad apch end rnwy 13.

Chanute, Kans.: 051°; apch end rnwy 12.

●**Chattanooga, Tenn.** (Lovell): 332°; 5.1 NM, centerline S txwy a point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 200°; on yellow line on taxi strip immediately SE or apch end rnwy 8; 4.0 nmi.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15–33.

●**Childress, Tex.:** 353°; 3.7 mi, int of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp on Easterwood Arpt.

●**Columbia, S.C.** (Metro): 332°; 6 NM E/W txwy (parallels rnwy 10–28).

Columbia, S. C. (Owens Fld): 022°; 7.5 NM compass rose on parking ramp.

●**Columbus, Ga.** (Muscogee Co.): 145°; 7.1 NM pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM–TPA): 300°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

●**Dallas, Tex.** (Addison): 159°; .75 mi, int of center and parallel txwys.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/SE rnwy.

Dothan Arpt, Ala: 334°; on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl): 160°; int of SW ramp and txwy T–2.

●**Dubuque, Iowa:** 334°; on ramp at Trml Bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 3 just off SE corner of ramp.

●**Duncan, Okla.** (Halliburton Fld): 329°; 6 mi, Trml ramp at intsxn N/S and ctr txwys.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W of Arpt Opern Office.

●**Elizabeth City, N.C.** (CGAS): 028°; 5 NM, lctd on txwy leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

●**Enid, Okla.** (Woodring Fld): 348°; 0.5 mi, ramp W of Trml Bldg.

Erie, Pa. (Erie-Port Erie): 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Admin Bldg.

●**Florence, S.C.:** 235°; 4.3 NM, on txwy W of the end of rnwy 18.

●**Fort Bening, Ga.** (Lawson AAF): Lctn #1–021°; .8 NM, runup area on txwy at apch end of rnwy 20. Lctn #2—130°; 1 NM, runup area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt): 120°; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page): 172°; N side of Trml ramp.

Fort Riley, Kans (Marshall AAF): 032°; on parking ramp adj to radar antenna.

Fort Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

●**Fort Stockton, Tex.** (Pecos Co.): 116°; 4 mi, on ramp N of Trml.

Frederick, Md. (Mun): 359°; txwy between rnwys near apch end rnwy 23.

●**Gage, Okla.:** 109°; 5.7 mi, int txwys, NW corner of ramp.

Gallup, N. Mex. (Senator Clarke Fld): 050°; ctr of txwy in front of term bldg; 5.2 nmi from VOR.

Goldsboro, N.C. (Seymour Johnson AFB): 280°; .6 NM, run up pad at apch end rnwy 8.

Great Falls, Mont. (Intl): #1–027°; int NE/SW and E/W txwys adjt to apch end rnwy 34; 2.4 mi. #2–027°; on NE/SW txwys 100′ SW rnwy 25; 3.0 mi.

Green Bay, Wis. (Austin-Straubel): 141°; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

●**Greensboro, N.C.** (High Point Arpt): 033°; 3.1 NM, ramp in front of twr.

Greenwood, Miss.: 060°; central taxiway adj to ramp.

●**Greenwood, S.C.** (County): 251°; .7 NM, on txwy apch end of rnwy 9.

Gulfport, Miss.: 098°; 100′ NW of ctl twr.

●**Harrison, Ark.:** 131°; 4.3 mi, int txwy and ramp.

Helena, Mont.: 235°; taxiway adj to apch end rnwy 26.

●**Hobbs, N. Mex.** (Lea County): 030°; 3.5 mi, on runup pad apch end rnwy 3.

Holston Mountain, Tenn.: 282°; on ramp S of Term Bldg.

●**Hot Springs, Ark.** (Meml Fld): 246°; .75 mi, runup pad rnwy 5.

Houston, Tex.: 292°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld): 007°; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 359°; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

Key West, Fla. (Boca Chica): 091°; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l): 127°; NW portion of ramp.

●**Kinston, N.C.** (Stallings): 230°; 3.9 NM, 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

●**La Grange, Ga.** (Callaway Arpt): 106°; 7 NM, on compass rose at taxi strip int aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City): 053°; center of apch end rnwy 6

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351° last txwy W side apchg rnwy 19.

Las Vegas, N. Mex.: 231°; on apron N of FSS bldg.

●**Lawton, Okla.:** 349°; 4.6 mi, int of Trml ramp and S taxi strip.

●**Little Rock, Ark.** (Adams): 315°; 4.5 mi, on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

●**Longview, Tex.** (Gregg Co.): 126°; 2.5 mi, N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

●**Lubbock, Tex.:** 103°; 4.5 mi, runup pad apch end rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen): 026°; mid txwy to rnwy 17–35.

Manhattan, Kans. (Muni): 145°; on ramp in front of Trml Bldg.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Alpine): 314°; 5 NM from VOR intsxn NW/SE—NE/SW txwy, 450′ E apch end rnwy 30.

Marianna, Fla.: 310°; ESE end taxiway 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

●**McAlester, Okla.** (Muni): 350°; 2 mi, int ramp and taxi strip.

McAllen, Tex. (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S rnwy. Lctn #2—012°; in front airline trml on gate two loading spot.

Melbourne, Fla. (Eau Gallie). 145°; 500′ E of Term Bldg.

Meridian, Miss. (Ky): 121°; from run up ramp for rnwy 23.

●**Midland, Tex.** (Air Trml): 178°; 4.3 mi, int txwy C and ramp in front of Trml Bldg.

Miles City, Mont: 036°; on txwy leading to rnwy 30.

●**Mineral Wells, Tex.:** 307°; 4.5 mi, int of txwy and rnwy 31.

Missoula, Mont. (County): 340°; 5′ from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates): 107°; Int of N/S and E/W txwys E of rnwy 18–36. 109.5°; Int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

Morgantown, W. Va.: 157°; on txwy in front of Term Bldg.

Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11-29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX-AMA): 253°; on ramp in front of Admin Bldg.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

New Orleans Intl, La. (Moisant Fld): 235°; center of perimeter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun): 081°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Ocala, Fla. (Mun): 139°; on ramp near trml bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bldg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Pahokee, Fla.: 344°; overrun rnwy 35.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.

●**Paris, Tex.** (Cox Fld): 348°; 5.6 mi, int of N/S and E/W rnwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

●**Pecos, Tex.** (Muni): 133°; 5.5 mi, on ramp adj to center txwy.

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S and E/W txwys of arpt.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

●**Pine Bluff, Ark.** (Grider): 179°; 4 mi int of ctr txwy and N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg; 2.9 nmi.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

●**Raleigh, N.C.:** 244°; 1 NM, end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10-28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1-19 and 305′ from centerline of rnwy 7-25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn-around E end rnwy 25; 1.9 nmi Lctn #2—261°; in center of turn-around W end rnwy 7; 3.1 nmi.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

●**Rocky Mount, N.C.:** 261°; 4.3 NM, right 3 rnwy 33, marker.

Rome, Ga. (Russeell Fld): 348°; Intersection of taxiways 200′ S of the terminal bldg.

St. Paul, Minn., (Downtown Arpt): 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parking ramp 500′ SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

●**San Angelo, Tex.** (Mathis): 236°; 2.2 mi, E edge of ramp front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santta Rosa Calif. (Sonoma Co. Arpt): 083.5°; SW corner main ramp.

Sante Fe, N. Mex. (New Municipal): 334°; at junction main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N trml bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposite trml bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200′ N of N edge of trml ramp.

●**Spartanburg, S.C.** (Meml): 192°; 7.3 NM, at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400′ S of N end of taxi strip.

●**Stillwater, Okla.** (Searcy Arpt): 173°; 4 mi, NW ramp and taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans.: (Philip Billard Arpt): 213°; N/S taxiway W of tetrahedron.

●**Tri-City, Tenn.:** HMV 282°; 13.2 NM on ramp S of Trml Bldg.

Truth or Consequences, N. Mex.: 157°; on NE/SW txwy 200′ NW of wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

Vichy, Mo.: 241°; on txwy W of NE/SW rnwy.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

●**Waco, Tex.** (Muni): 132°; 3.5 mi, int of ramp and N taxi strip.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

●**Walnut Ridge, Ark.:** 051°; 1.7 mi, taxi strip at parking ramp adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; vcnty of base operator ramp.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300′ from centerline rnwy 14–32.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1966

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	×	
Balboa	FAA	×	
Cold Bay	FAA	×	
Dallas	BNF	×	
Guam	FAA	×	
Honolulu	ARINC	×	×
Miami	ARINC	×	×
New York	ARINC	×	×
New Orleans	ARINC	×	×
Okinawa	ARINC	×	×
Pago Pago	FAA	×	
Point Barrow	FAA	×	
San Francisco	ARINC	×	×
Shemya	FAA	×	
San Juan	ARINC	×	×
Seattle	ARINC	×	×
Wake Island	FAA	×	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard flields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

TRAFFIC INFORMATION ON MERGING RADAR TARGETS

Effective July 31, 1966, ATC facilities will implement a traffic information service on merging radar targets to radar identified scheduled air carrier aircraft. Traffic information will be issued to a radar identified scheduled air carrier aircraft when his radar target is likely to merge with another observed radar target, unless the observed traffic is known to be separated by more than the minimum vertical separation for his altitude. This service will not be provided to aircraft while they are holding in a holding pattern. Pilots should expect other traffic to be in a holding pattern with approved separation. Such traffic information will be issued routinely unless the controller is engaged in the provision of separation to the extent that it is not possible to provide this traffic information.

A vector to avoid merging targets will be provided only at the pilot's request and then *only* on a workload permitting basis. The vector, when provided, will not necessarily provide approved radar separation (three or five miles). The controller will attempt to provide vectors only to the extent that the targets do not touch.

Standard phraseologies for issuing traffic information and vectors will be used.

July 1966

SIMULTANEOUS OPPOSITE DIRECTION OPERATIONS ON PARALLEL RUNWAYS

Controls towers may authorize opposite direction operations on parallel runways, on parallel landing strips, or on a runway and a parallel landing strip, when the following conditions are met:

a. All operations are conducted in VFR conditions, two-way communications are maintained with the aircraft involved, and pertinent traffic information is issued.

b. For operations between sunrise and sunset, a distance of at least 1400 feet exists between parallel runway centerlines, between adjacent edges of parallel landing strips, or between adjacent edges of a runway and a parallel landing strip.

c. For operations between sunset and sunrise, a distance of 2800 feet exists between parallel runway centerlines. (Note: Simultaneous opposite direction operations are not authorized between sunset and sunrise on a runway and a parallel landing strip or on parallel landing strips.)

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V–282, V–203, V–91, V–475, DPK. Those at FL 180 and above will be routed via St. Eustache V–91, PLB, J–75, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V–487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–75, PLB, V–91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V–203, ALB, V–91, V–475, DPK. Those at FL 180 and above will be routed via G–1 Maxville, V–104, MSS, J–37, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V–91, ALB, V–203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–37, MSS, V–104, Maxville, G–1.

Flights from Toronto to Kennedy below FL 180 will be routed via V–36S, V–252, BGM, V–270, V–34, V–475, DPK. Those at FL 180 and above will be routed via V–36S, BUF, J–95, HUO, CMK, V–34, V–475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V–126, AVP, V–36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J–95, BUF, V–36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

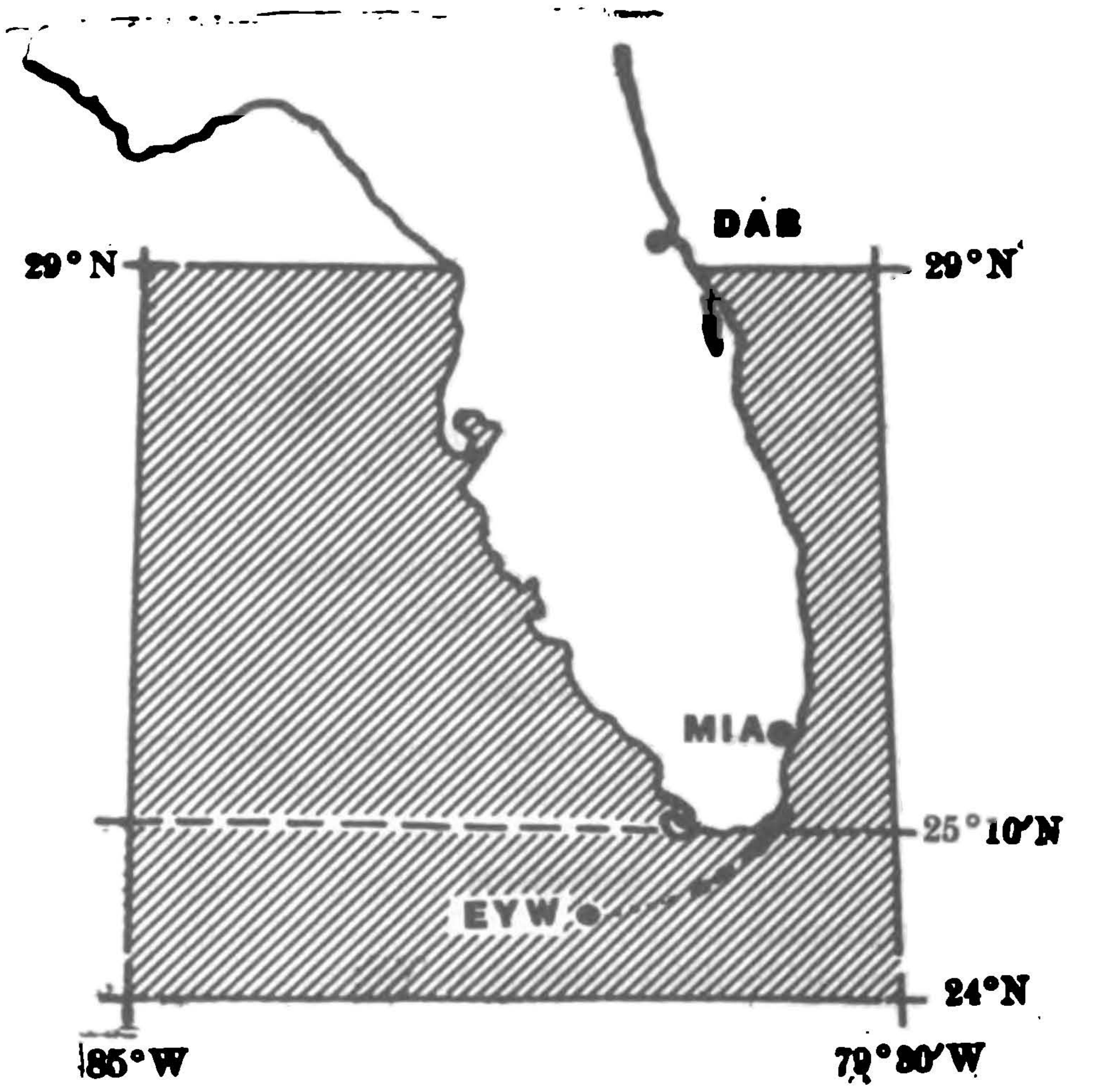
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

PART-TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

St. Petersburg, Albert Whitted Arpt: 0600–2200 local time daily.

Sarasota: 0600–2200 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

● **Davenport:** Efctv Oct. 13, 1966. 0700–1900 local time daily.

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

Benton Harbor: 0730–2200 local time daily.

Escanaba: 0730–2200.

Iron Mountain: 0800–2145 local time daily.

Ironwood: 0630–2030 local time daily.

Menominee: 0800–2130 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainerd: 0730–2030 local time daily.

Fairmont: 0715–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

Winona: 0900–1845 local time Mon–Fri and 0900–1630 local time Sat and Sun.

Worthington: 0800–1845 local time daily.

MISSOURI

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

Kearney: 0700–2200 daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730–2100 local time daily.

NORTH DAKOTA

Devils Lake: 0600–2300 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

Hillsboro: 0600–2200 local time daily.

SOUTH CAROLINA

Myrtle Beach/Crescent Beach: 0800–2130 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Killeen: 0600–2000 local time daily.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630- 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

Bremerton: 0600–1800 local time daily.

● **Moses Lake, Grant Co. Arpt.:** 0700–2300 local time daily.

Pullman: 0700–2400 local time daily.

Tacoma Industrial Arpt: 0600–2400 local time daily except Sat 0600–2100 local time.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

Janesville: 0600–2300 local time Sun thru Fri and 0600–2200 local time Sat.

Manitowoc: 0800–2200 local time daily.

Rhinelander: 0700–2130 local time daily.

Stevens Point: 0700–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

g. To clear a departing aircraft via the route filed, the controller will state "CLEAR AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

DME at ILS Locations

The FAA has installed Distance Measuring Equipment (DME) at selected ILS glide slope locations for the purpose of determining the operational advantages of DME when used in conjunction with ILS. DME capabilities have been incorporated in the ILS instrument approach procedure at the following locations:

Airport	*Runway*
John F. Kennedy International, New York	04R
Albany County, New York	19
Minneapolis—St. Paul International, Minnesota	11R
Dulles International, Washington, D.C.	01R
St. Joseph County, South Bend, Indiana	09, 27
Cleveland—Hopkins International, Ohio	05R, 23L
Reno, Nevada	34, 16
Lindbergh Field, San Diego, California	09, 27

An operational evaluation will be conducted by the FAA at these locations commencing during the month of July, 1966. Questionnaires will be made available to pilot personnel to obtain user comments during the evaluation period. Pilots conducting operations into these airports with DME equipped aircraft are encouraged to utilize the DME capability of the ILS facilities and to report their findings and recommendations by submitting completed questionnaires to the FAA.

July 1966

•MEA, MCA, MOCA, MRA, MAA

Effective immediately: (1) MEA J-86, INW to ELP is 29,000 ft. MEA is established with a gap in navigation signal coverage. (2) MEA V-138, GRI to Seward INT, Neb. 4000 ft. vice 3600 ft. (3) MOCA V-76, HYM to SJT 4000 ft. vice 3800 ft.

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO-O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

The part-time manned facilities, which transmit and receive on 123.6 and 121.5 (emergency), the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0600–2000.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Concord, New Hampshire)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

October 1965

EVALUATION OF AIRPORT TRAFFIC LIGHT SYSTEM WASHINGTON NATIONAL AIRPORT

The Airport Traffic Light System with 14 lights/signs has been installed at Washington National Airport. Beginning September 8, 1966, for a 45 day period this system will be evaluated to determine the feasibility of utilizing a Light System in the control of airport ground traffic. It will be used strictly as a back up for the verbal clearance issued by Ground Control or the Local Controller.

Light/sign signals have been installed at the end of Runway/s 3/36/33, at the entrance of these runways, and at most of the taxiway intersections affecting these runways in a North operation. The light/sign signal is strictly a backup to one of the following appropriate verbal clearances: (1) Cleared to cross (runway); (2) Taxi into position and hold; and (3) Cleared for take-off. These lights operate on the same principle as a traffic light; green light to go, and red light to hold. The operating concept provides that the traffic lights/signs will normally be showing red (HOLD). This will ensure that the active runways are always protected by a red light. When the Controller wishes to clear an aircraft to cross a runway or to clear an aircraft for take-off, in addition to a verbal clearance, the pilot will receive a green light (GO). The use of a green take-off light will automatically change all crossing lights on the active runway to red (HOLD). A safety lock out feature prohibits the use of a green crossing light until the take-off light has returned to red.

THERE WILL BE NO CLEARANCES ISSUED SOLELY BY THE LIGHT SYSTEM. THIS SYSTEM IS STRICTLY A BACKUP TO, AND ONLY CONFIRMS CONTROL INSTRUCTIONS DELIVERED BY RADIO COMMUNICATIONS. IF A PILOT RECEIVES A LIGHT SIGNAL WHICH CONFLICTS WITH THE VERBAL CLEARANCE, VERIFY IT WITH THE CONTROLLER.

The lights are rectangular in shape, approximately 47" by 15". When either cleared for take-off or cleared to cross a runway, the pilot will see the word "GO" in large white block letters on a green background. If not cleared he will see the word "HOLD" in white on a red background. When the system is inoperative a blank side of the light will be presented in black. These lights are located to the pilots left at points of entry to runways and ramp areas and can readily be seen from the cockpit.

A pilot questionnaire regarding the Light System will be made available. Your comments and opinions regarding the advantages or disadvantages of the Airport Traffic Light System are solicited.

1. This is an evaluation project only. It will be conducted in a North operation only.
2. No procedural or regularly changes are introduced. Tower will terminate the evaluation any time the normal flow of traffic is directly affected.
3. Lights will be operated only as a visual confirmation to verbal control clearance.
4. Lights do not pertain to landing aircraft or aircraft in the air.
5. No clearance will be issued solely by light signals.
6. For the purpose of the evaluation check a conflicting light against the verbal clearance.

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for the aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

May 1966

USE OF VASI

(Visual Approach Slope Indicator)

FAR 91.87(d)(3) requires that an airplane approaching to land on a runway at an airport with operating control tower and served by a VASI shall maintain an altitude at or above the glide slope (visual) until a lower altitude is necessary for a safe landing.

•LOCATION IDENTIFIERS

Location identifiers are assigned as follows:

SMF ------ Sacramento, California, Sacramento Metropolitan Airport.

RHV ------ San Jose, California, Reid-Hillview Airport of Santa Clara County.

VFR AIRPORT TRAFFIC PATTERNS

(In accordance with FAR Part 91.89(c))

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
Woodring Arpt. Enid, Okla.	35, 2, 30	Right turns	1600′ MSL
	20, 17, 12	Left turns	1600′ MSL

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis.*
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

1. **Airspace North of V18 airway from the surface to 3000 feet MSL.**
2. **Airspace South of V18 airway from the surface to 2000 feet MSL.**
3. **All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   - a. Airports within the Atlanta TRSA:
     - (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   - b. Airports underlying the Atlanta TRSA:
     - (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   - c. Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
   - d. Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V-18 should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V-18 should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.

     In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	"	North
	"	
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conyers	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

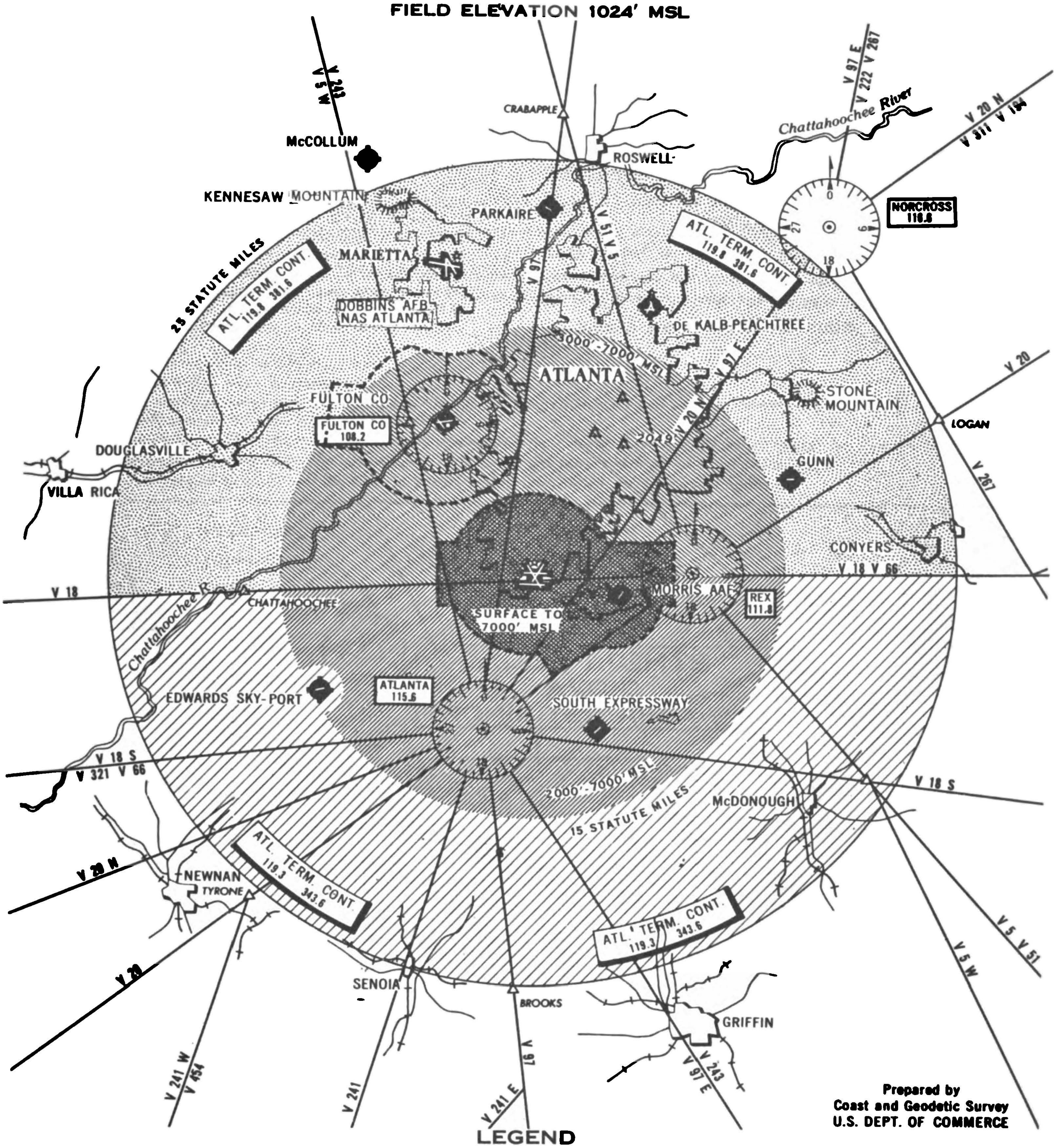
1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

   Note.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.
4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024' MSL


V 243
V 5 W
CRABAPPLE
McCOLLUM
ROSWELL
V 97 E
V 222 V 267
Chattahoochee River
V 20 N
V 311 V 194
KENNESAW MOUNTAIN
PARKAIRE
V 51 V 5
NORCROSS 116.6
ATL. TERM. CONT. 119.8 381.6
25 STATUTE MILES
ATL. TERM. CONT. 119.8 381.6
MARIETTA
V 97
DOBBINS AFB NAS ATLANTA
DE KALB-PEACHTREE
3000'-7000' MSL
ATLANTA
V 97 E
V 20 N
STONE MOUNTAIN
FULTON CO
FULTON CO 108.2
V 20
LOGAN
DOUGLASVILLE
2049
GUNN
VILLA RICA
V 267
CONYERS
V 18 V 66
V 18
CHATTAHOOCHEE
Chattahoochee R.
SURFACE TO 7000' MSL
MORRIS AAF
REX 111.8
EDWARDS SKY-PORT
ATLANTA 115.6
SOUTH EXPRESSWAY
V 18 S
V 321 V 66
V 18 S
2000'-7000' MSL
15 STATUTE MILES
McDONOUGH
V 20 N
NEWNAN
TYRONE
ATL. TERM. CONT. 119.3 343.6
ATL. TERM. CONT. 119.3 343.6
V 20
V 5 V 51
V 5 W
SENOIA
BROOKS
GRIFFIN
V 241 W
V 454
V 241
V 241 E
V 97
V 243
V 97 E

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA ▨ 2000'-7000' ■ SURFACE TO 7000' ▩ 3000'-7000'

CONTACT OR CALL-UP AREAS
North of V 18 ░
South of V 18 ▨

GEORGIA

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.
6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia Rivers. From takeoff climb to 1500', reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000' altitude. Stay over the River until passing through 3000' altitude unless otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1-AND 2-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 1500' prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 2000' prior to turning oncourse unless instrurted to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.

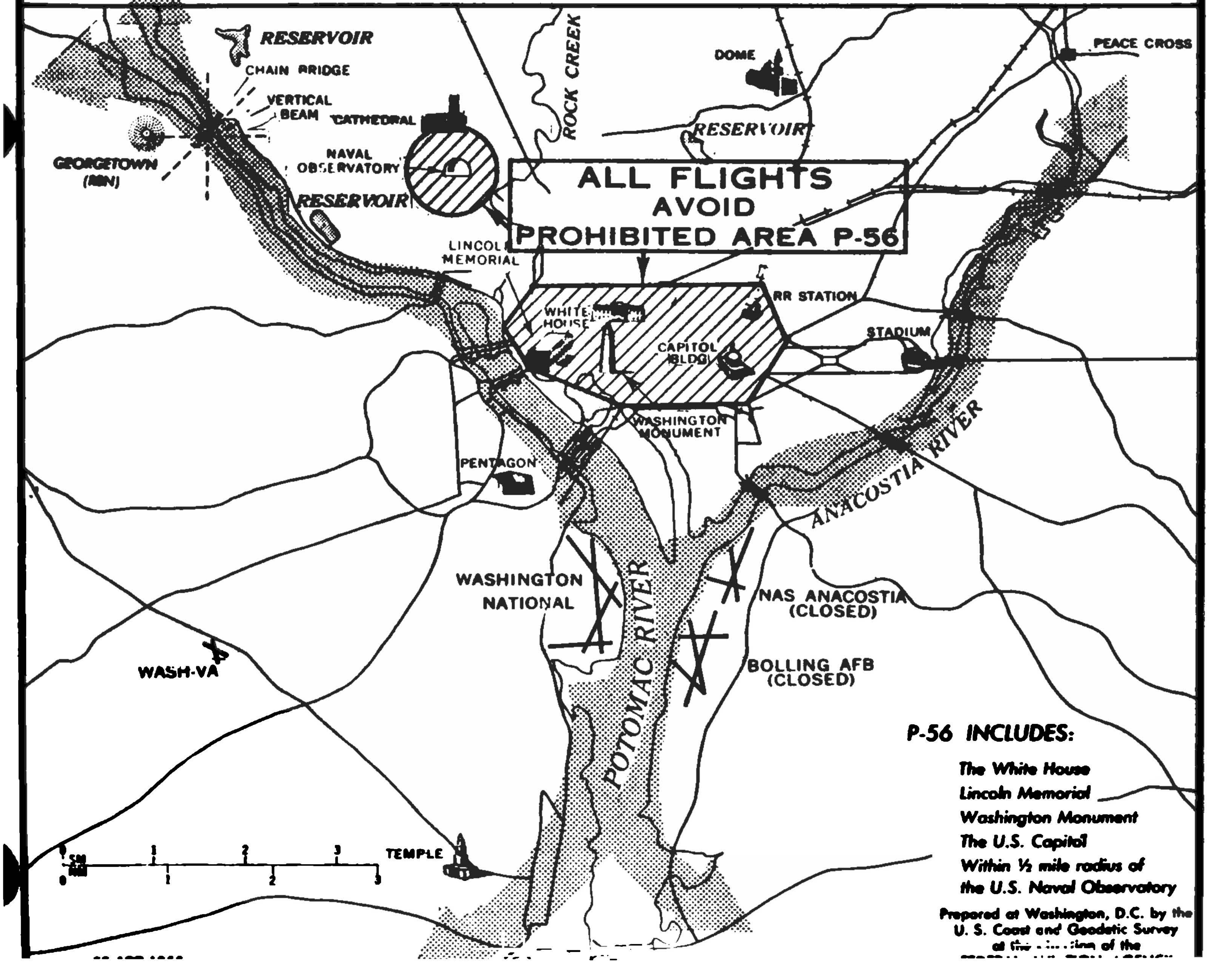
Remain at 2500' or higher while en route to final.

When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.

A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.

On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.

If VFR go around is required, climb over the River to 2500', enter traffic pattern for subsequent approach.



RESERVOIR
CHAIN BRIDGE
VERTICAL BEAM
CATHEDRAL
GEORGETOWN (RBN)
NAVAL OBSERVATORY
RESERVOIR
ROCK CREEK
DOME
RESERVOIR
PEACE CROSS
ALL FLIGHTS AVOID PROHIBITED AREA P-56
LINCOLN MEMORIAL
WHITE HOUSE
CAPITOL BLDG
RR STATION
STADIUM
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
POTOMAC RIVER
WASH-VA
TEMPLE
1/2 MI
0 1 2 3

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of the U.S. Naval Observatory

Prepared at Washington, D.C. by the U. S. Coast and Geodetic Survey at the direction of the

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West-Northwest
Crows Landing (NAS)	West
City of Gustine	West-Southwest
City of Los Banos	South-Southwest
City of Dos Palos	South
City of Chowchilla	East-Southeast
City of Madera	East-Southeast
City of Mariposa	East-Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

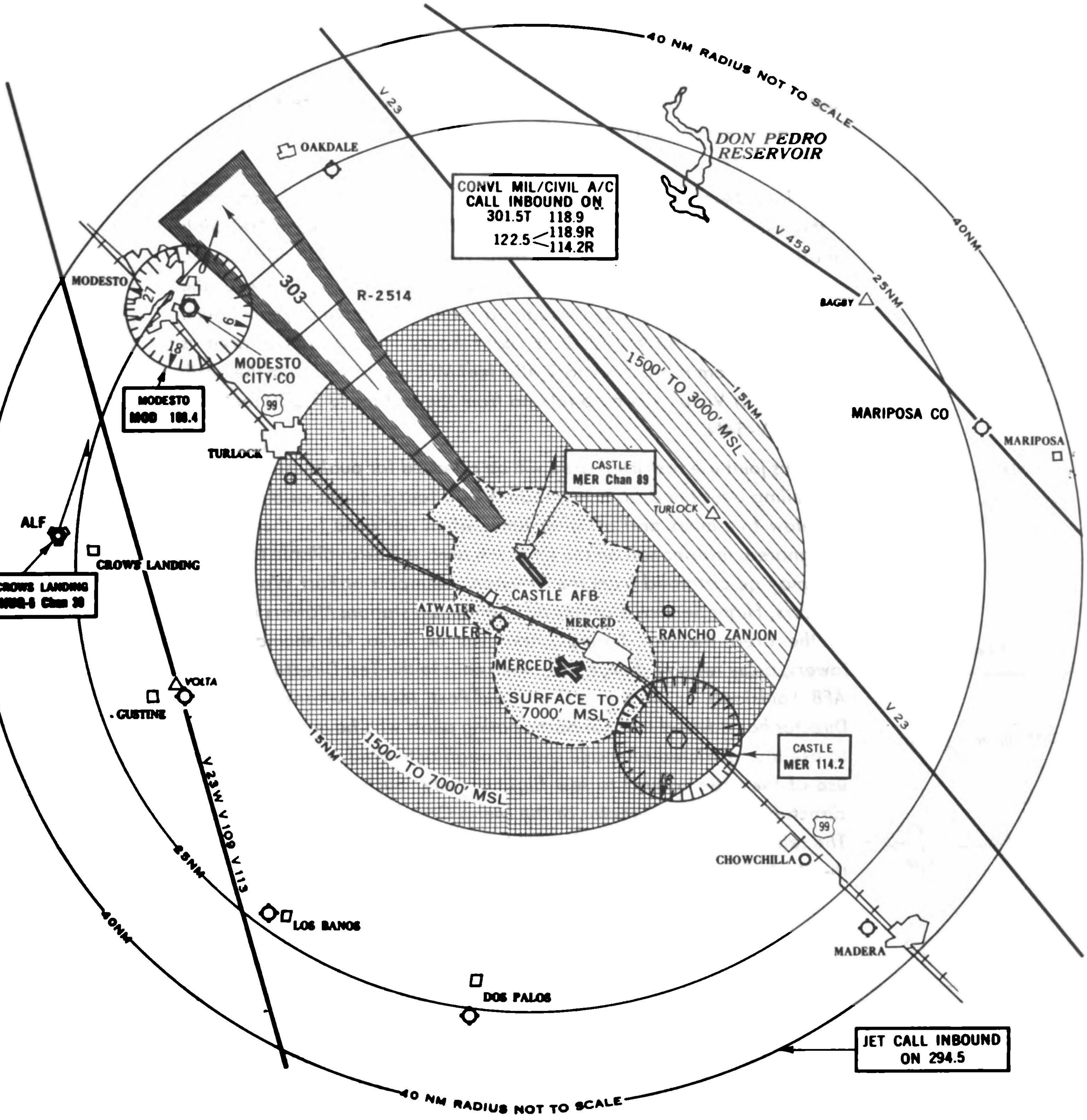
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188' MSL


40 NM RADIUS NOT TO SCALE
V 23
OAKDALE
DON PEDRO RESERVOIR
CONVL MIL/CIVIL A/C CALL INBOUND ON
301.5T 118.9
122.5<118.9R 114.2R
V 459
40NM
25NM
BAGBY
303
R-2514
MODESTO
27
6
18
MODESTO CITY-CO
MODESTO
MOD 108.4
99
1500' TO 3000' MSL
15NM
MARIPOSA CO
MARIPOSA
TURLOCK
CASTLE
MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING
NBQ-5 Chan 30
CASTLE AFB
ATWATER
BULLER
MERCED
RANCHO ZANJON
MERCED
SURFACE TO 7000' MSL
VOLTA
GUSTINE
15NM
1500' TO 7000' MSL
CASTLE
MER 114.2
V 23
V 23W V 109 V 113
99
CHOWCHILLA
25NM
40NM
LOS BANOS
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA ▒ SURFACE TO 7000' ▨ 1500' TO 3000' ▦ 1500' TO 7000'

CONTACT OR CALL-UP AREAS CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

16 SEP 1965

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LOUISIANA, ARKANSAS AND OKLAHOMA
TEMPORARY RESTRICTED AREA R-3806
JOINT TASK FORCE TWO, TEST 4.1

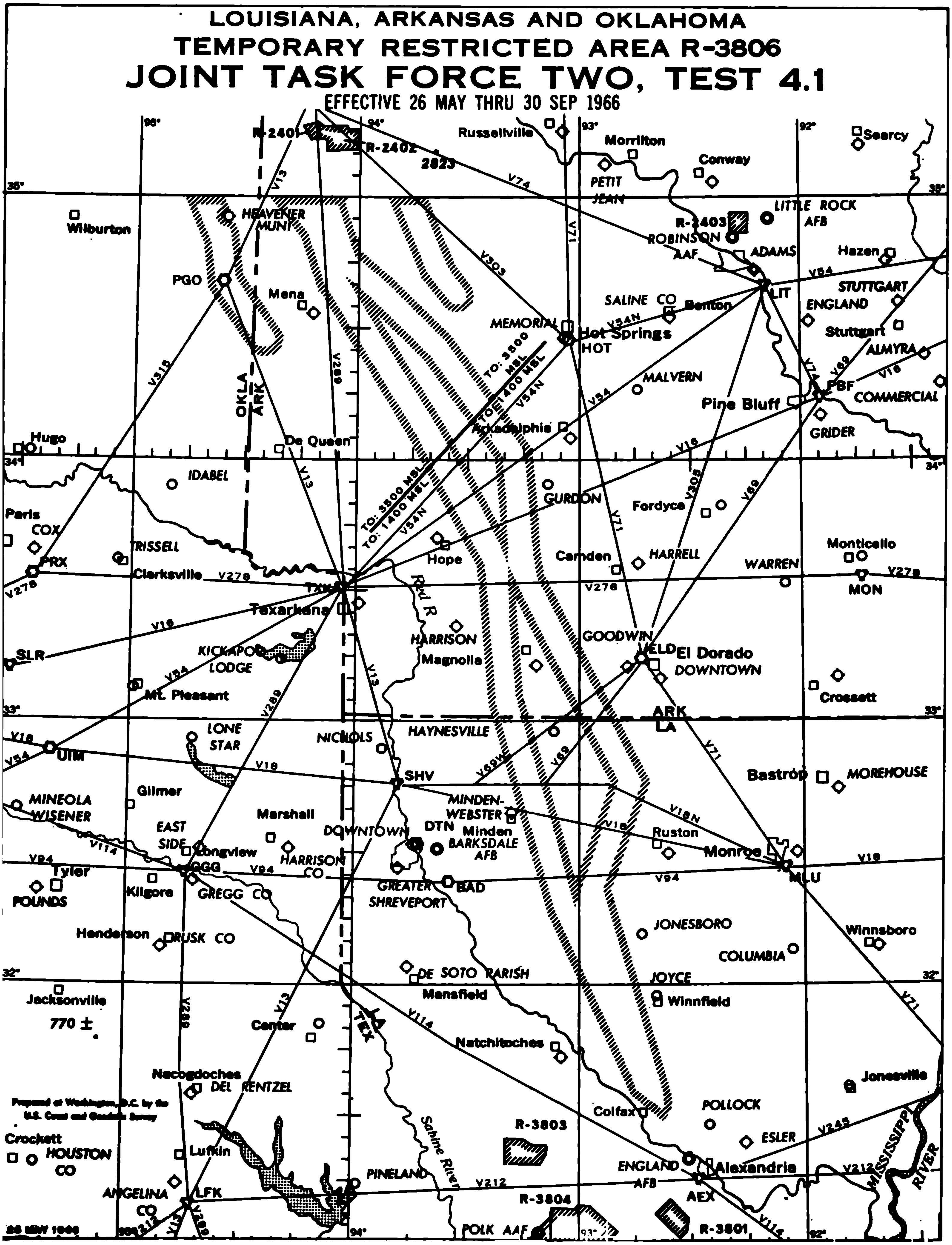
EFFECTIVE 26 MAY THRU 30 SEP 1966

Joint Task Force Two (JTF-2) an organization composed of representatives from all military services will conduct a test involving approximately 600 aircraft flights within the depicted temporary restricted area.

Navy, Marine, Army and Air Force aircraft and crews will participate in the test. Speeds of the various aircraft will range from 175 to 600 knots at altitudes normally below 500 feet. The test flights will normally be conducted within a six-hour period daily centered on the time when the sun is at its zenith, Monday through Saturday during the daylight hours. Maximum daily use by JTF-2 is eight hours. The restricted area is designated from the surface to 1,400 feet MSL southward from the north boundary of Victor Airway 54N and from the surface to 3,500 feet MSL north of V-54N.

This joint use restricted area will be released for public use whenever the ceiling over the area is less than 3,000 feet or flight visibility within is below five miles and at other times when not used for the purpose designated. Information on the times the area will be available for public use may be obtained from the Houston, Memphis or Fort Worth ARTC Centers, Flight Service Stations and combined stations/towers adjacent to the area, the Hot Springs, Arkansas or Tulsa, Oklahoma control towers, or by reverse charge telephone calls to the Test Director, England AFB, Louisiana, or the Mena Command Post, Mena, Arkansas. The Test Director has advised that nonparticipating pilots who have a requirement to use the restricted airspace even though activated, will be permitted use of the area subject to test flight activity. Such requests should be directed to the Test Director or the Mena Command Post by telephone. The telephone numbers will be publicized throughout the area prior to the start of the test.

Designated altitudes:	*Surface to 1,400 feet MSL from point of beginning to 4 nmi north of and parallel to the centerline of V-54 north alternate, thence 3,500 feet MSL to the completion of the courses.*
Time of designation:	*Sunrise to sunset, Monday through Saturday from May 26, 1966, through September 30, 1966. Maximum daily use, eight hours.*
Controlling agency:	*FAA, Houston ARTCC.*
Using agency:	*Joint Task Force Two, Sandia Base, New Mexico.*



LOUISIANA, ARKANSAS AND OKLAHOMA
TEMPORARY RESTRICTED AREA R-3806
JOINT TASK FORCE TWO, TEST 4.1
EFFECTIVE 26 MAY THRU 30 SEP 1966

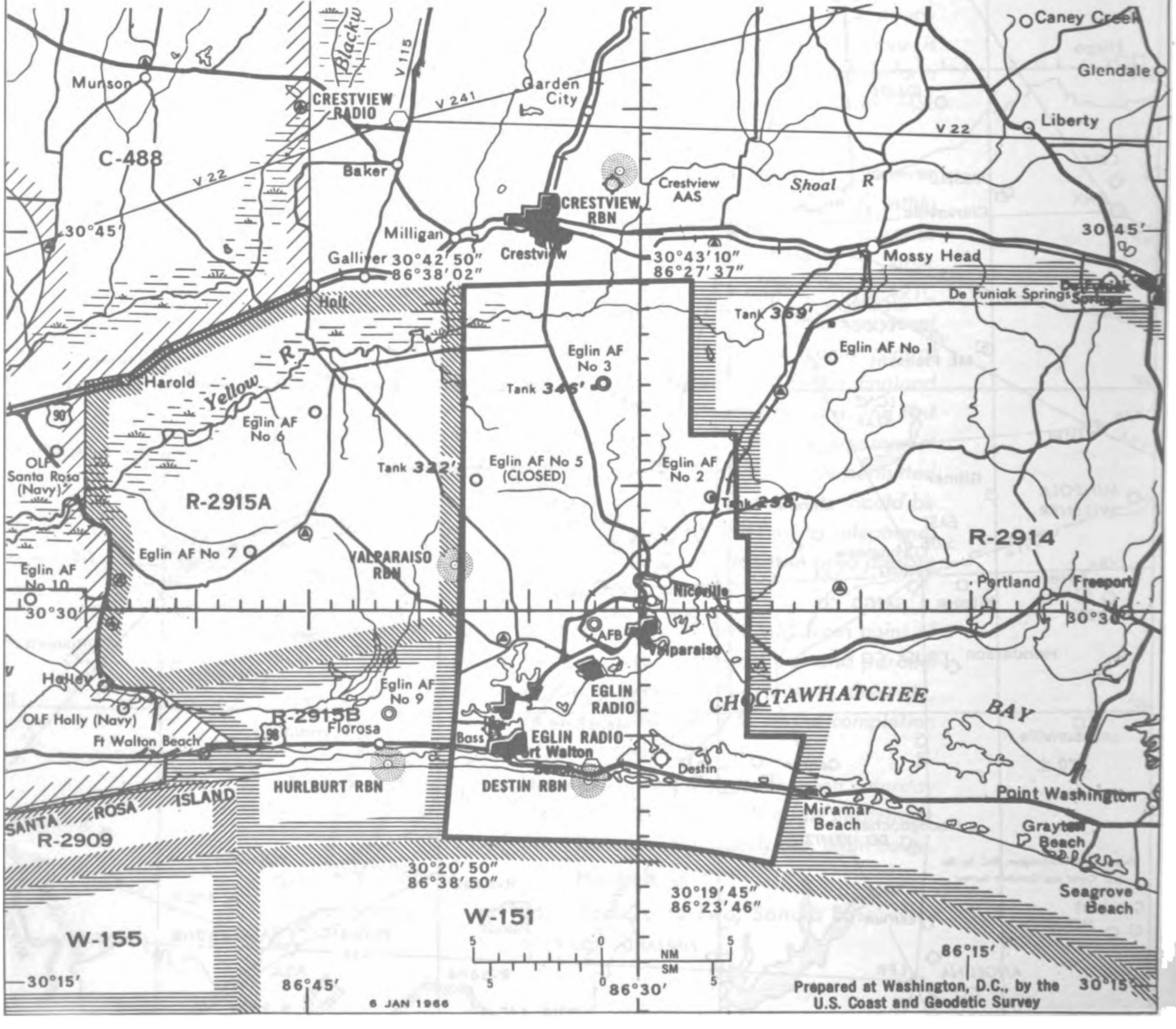
R-2401
R-2402
2823
Russellville
Morrilton
Conway
Searcy
PETIT JEAN
V74
V71
Wilburton
HEAVENER MUNI
V13
R-2403
LITTLE ROCK AFB
ROBINSON AAF
ADAMS
Hazen
PGO
Mena
V303
V54
LIT
STUTTGART
ENGLAND
SALINE CO
Benton
Stuttgart
MEMORIAL
Hot Springs
HOT
V54N
ALMYRA
TO: 3500 MSL
TO: 1400 MSL
V269
V315
OKLA
ARK
MALVERN
V16
PBF
COMMERCIAL
Pine Bluff
Arkadelphia
GRIDER
Hugo
De Queen
IDABEL
GURDON
Fordyce
V305
V69
Paris
COX
TRISSELL
Hope
Camden
HARRELL
Monticello
WARREN
PRX
Clarksville
V278
TXK
Texarkana
MON
Red R
SLR
KICKAPOO LODGE
HARRISON
Magnolia
GOODWIN
ELD
El Dorado
DOWNTOWN
Mt. Pleasant
Crossett
ARK
LA
LONE STAR
NICHOLS
HAYNESVILLE
V18
UIM
SHV
Bastrop
MOREHOUSE
MINEOLA WISENER
Gilmer
MINDEN-WEBSTER
V18N
EAST SIDE
Longview
Marshall
DOWNTOWN
DTN
Minden
BARKSDALE AFB
Ruston
V114
HARRISON CO
Monroe
Tyler
GGG
V94
GREATER SHREVEPORT
BAD
MLU
POUNDS
Kilgore
GREGG CO
JONESBORO
Winnsboro
Henderson
RUSK CO
COLUMBIA
DE SOTO PARISH
JOYCE
Jacksonville
770 ±
Mansfield
Winnfield
Center
LA
TEX
Natchitoches
Jonesville
Nacogdoches
DEL RENTZEL
POLLOCK
Colfax
R-3803
ESLER
V245
Crockett
HOUSTON CO
Lufkin
Sabine River
ENGLAND AFB
Alexandria
V212
MISSISSIPPI RIVER
PINELAND
AEX
ANGELINA CO
LFK
R-3804
R-3801
POLK AAF
36°
35°
34°
33°
32°
96°
95°
94°
93°
92°
Prepared at Washington, D.C. by the U.S. Coast and Geodetic Survey
26 MAY 1966

86°45′ 86°15′

VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

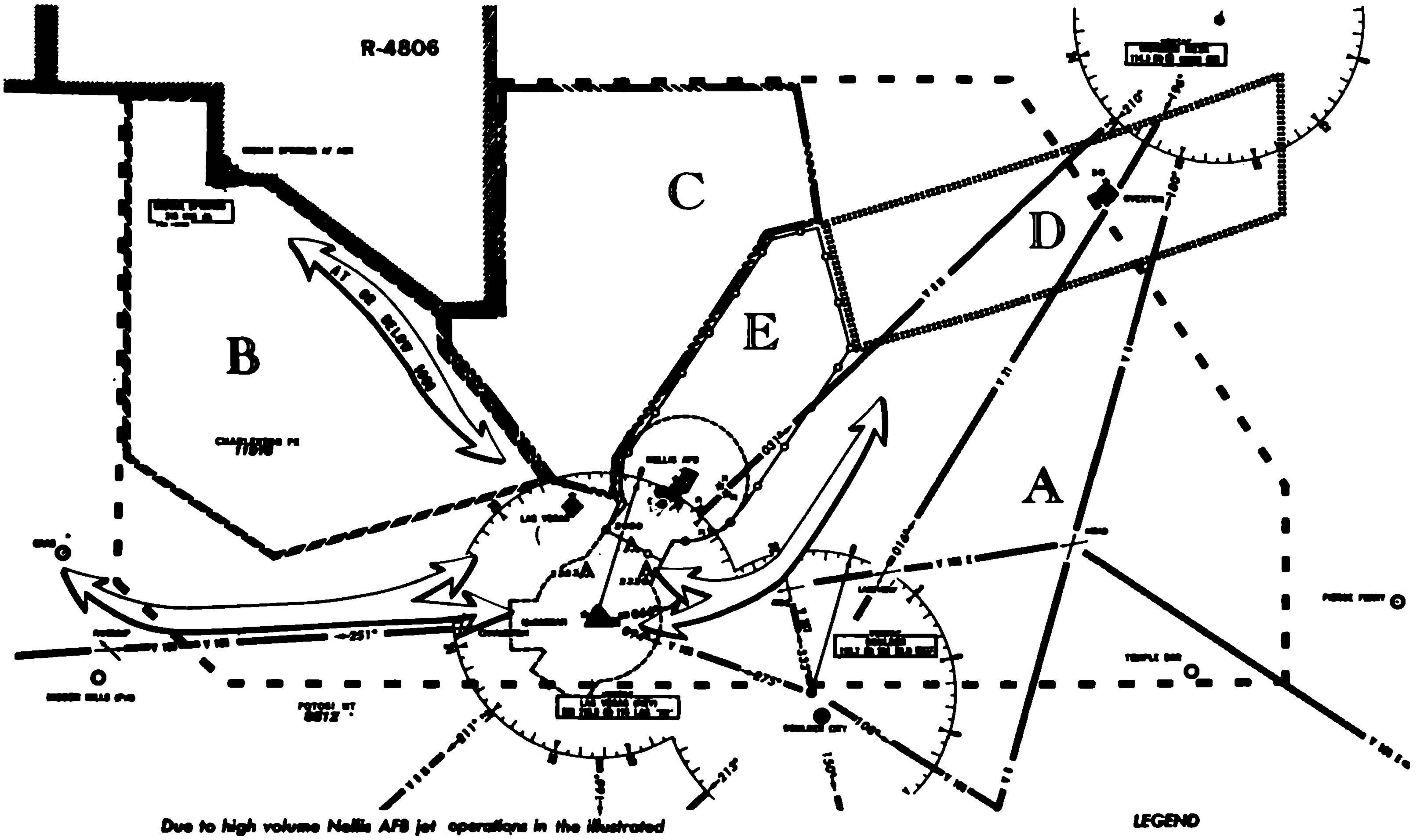
A special rule in effect sunrise to sunset, Monday through Saturday requires pilots to obtain information about special activities operating between R-2914 and R-2915A and B. These activities use varying altitudes but altitudes for VFR flight are always available. Contact Crestview Radio (122.1,123.6,126.7) or Eglin RAPCON (119.3) for information.


Munson
CRESTVIEW RADIO
Blackw
V 115
V 241
Garden City
C-488
V 22
Baker
Milligan
CRESTVIEW RBN
Crestview AAS
Shoal R
Caney Creek
Glendale
Liberty
V 22
30°45′
Galliver 30°42′50″ 86°38′02″
Crestview
30°43′10″ 86°27′37″
Mossy Head
De Funiak Springs
Holt
Tank 359′
Eglin AF No 1
Eglin AF No 3
Tank 346′
Harold
Yellow R
90
Eglin AF No 6
OLF Santa Rosa (Navy)
Tank 322′
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 298′
R-2915A
R-2914
Eglin AF No 7
VALPARAISO RBN
Eglin AF No 10
30°30′
Niceville
Portland
Freeport
30°30′
AFB
Valparaiso
Holley
Eglin AF No 9
EGLIN RADIO
CHOCTAWHATCHEE BAY
OLF Holly (Navy)
R-2915B
Florosa
Ft Walton Beach
98
Bass
EGLIN RADIO
Fort Walton Beach
Destin
HURLBURT RBN
DESTIN RBN
SANTA ROSA ISLAND
Miramar Beach
Point Washington
Grayton Beach
R-2909
30°20′50″ 86°38′50″
30°19′45″ 86°23′46″
Seagrove Beach
W-151
W-155
5 0 5 NM
5 0 5 SM
86°15′
30°15′
86°45′
86°30′
30°15′

6 JAN 1966

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA



Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. *a. Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   - ● *Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Mormon Mesa Vortac for flight information.*

   b. Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Las Vegas Air Terminal.

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas.
Altitudes are Mean Sea Level

A ▬ ▬ ▬ Fl. 230
B ▰▰▰▰ 5,500 to Fl. 230
C ▬▬ Surface to Fl. 230
D ▨▨▨ 8,000 to 9,000
E o—o—o Surface to 9,000 inclv.

Recommended itinerant
VFR routes ⇔

Base And Airspace Compiled From
56th Edition Of Mt Whitney And 61st Edition
Of Los Angeles Sectional Aeronautical Charts

10 0 NAUTICAL 10 MILES 20 30 40 50
10 0 STATUTE 10 MILES 20 30 40 50

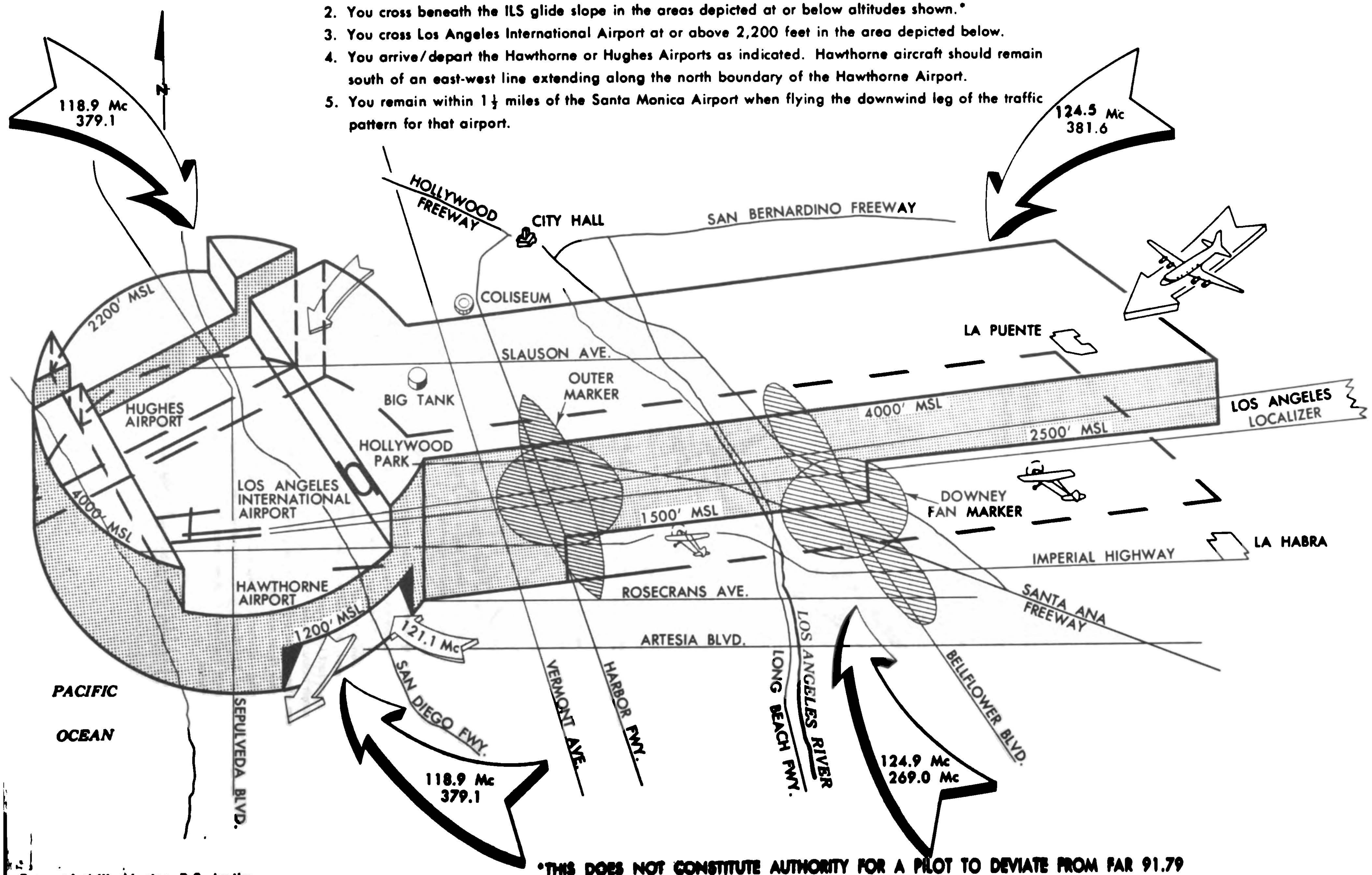
Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.


118.9 Mc
379.1
N
124.5 Mc
381.6
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
COLISEUM
2200' MSL
SLAUSON AVE.
LA PUENTE
OUTER MARKER
BIG TANK
HUGHES AIRPORT
HOLLYWOOD PARK
4000' MSL
2500' MSL
LOS ANGELES LOCALIZER
LOS ANGELES INTERNATIONAL AIRPORT
4000' MSL
1500' MSL
DOWNEY FAN MARKER
LA HABRA
IMPERIAL HIGHWAY
HAWTHORNE AIRPORT
ROSECRANS AVE.
1200' MSL
121.1 Mc
ARTESIA BLVD.
SANTA ANA FREEWAY
PACIFIC
OCEAN
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LOS ANGELES RIVER
LONG BEACH FWY.
BELLFLOWER BLVD.
SEPULVEDA BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

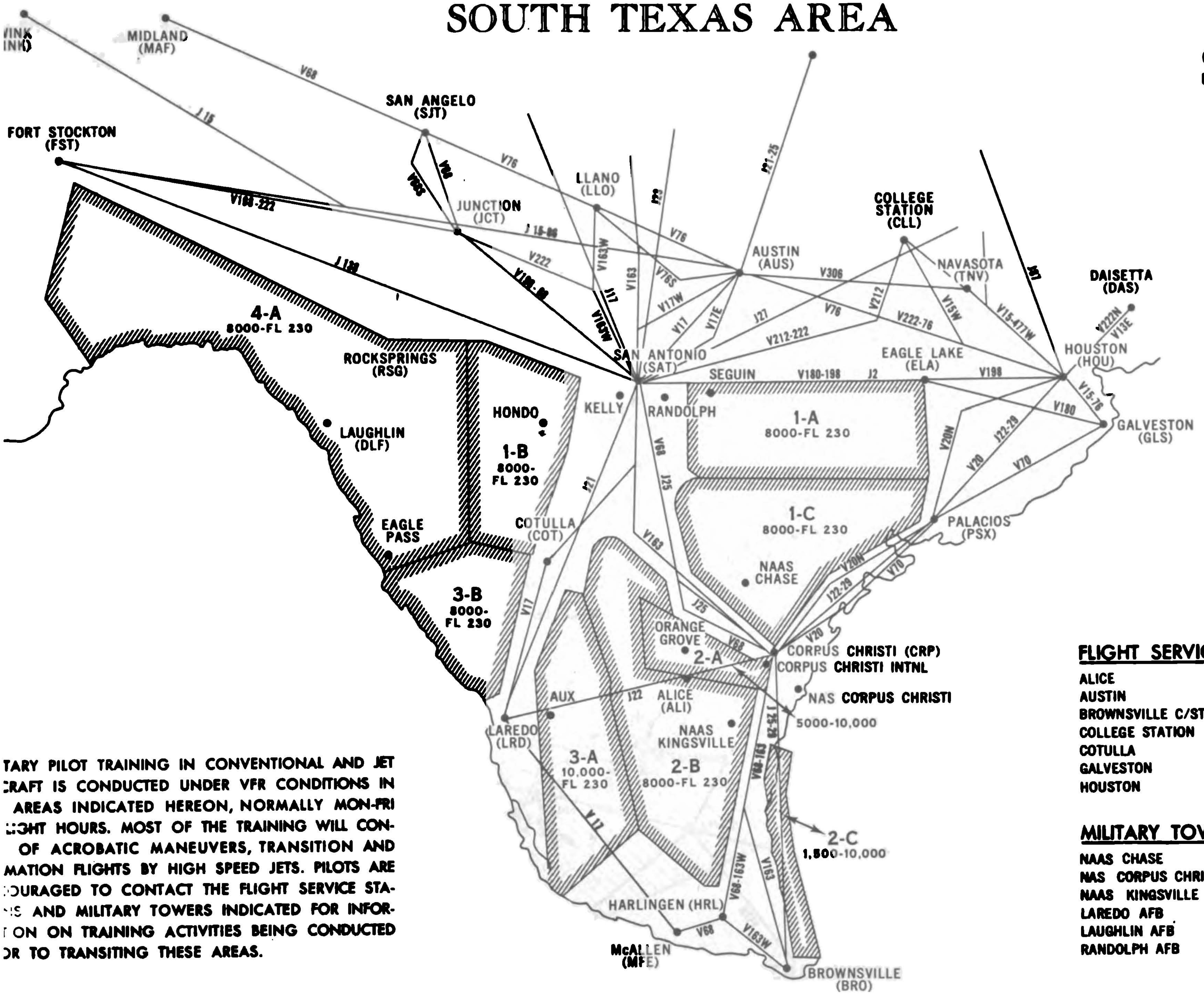
*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

22 JUL 1968

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN
SOUTH TEXAS AREA

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE


WINK (INK)
MIDLAND (MAF)
V68
J15
SAN ANGELO (SJT)
FORT STOCKTON (FST)
V76
V66
V66S
V198-222
JUNCTION (JCT)
J15-86
V222
V198-66
J138
LLANO (LLO)
V163W
V163
J17
V163W
V76
V76S
V17W
V17
V17E
J21-25
AUSTIN (AUS)
V306
J27
V76
V212-222
V212
V222-76
COLLEGE STATION (CLL)
NAVASOTA (TNV)
V15W
V15-477W
J87
DAISETTA (DAS)
V222N
V13E
HOUSTON (HOU)
V15-76
V180
V198
GALVESTON (GLS)
EAGLE LAKE (ELA)
V180-198
J2
SEGUIN
SAN ANTONIO (SAT)
KELLY
RANDOLPH
V68
J25
4-A
8000-FL 230
ROCKSPRINGS (RSG)
LAUGHLIN (DLF)
HONDO
1-B
8000-
FL 230
EAGLE PASS
COTULLA (COT)
J21
1-A
8000-FL 230
V20N
V20
J22-29
V70
PALACIOS (PSX)
1-C
8000-FL 230
NAAS CHASE
V163
V20N
J22-29
V70
V20
3-B
8000-
FL 230
V17
ORANGE GROVE
2-A
V68
J25
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
5000-10,000
AUX
J22
ALICE (ALI)
NAAS KINGSVILLE
J25-29
LAREDO (LRD)
3-A
10,000-
FL 230
2-B
8000-FL 230
V68-163
V17
2-C
1,500-10,000
V68-163W
V163
HARLINGEN (HRL)
V68
V163W
McALLEN (MFE)
BROWNSVILLE (BRO)

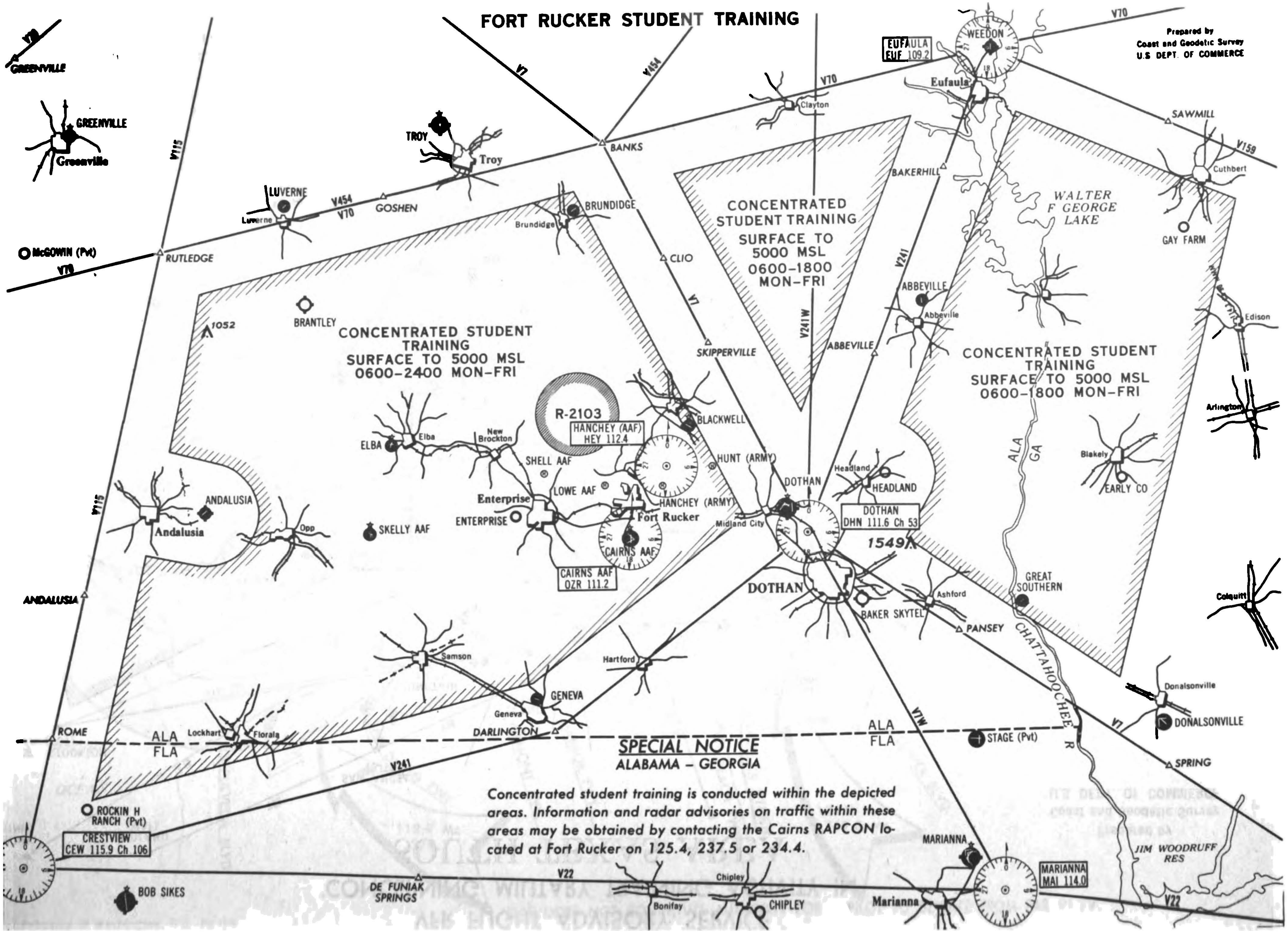
TARY PILOT TRAINING IN CONVENTIONAL AND JET
:RAFT IS CONDUCTED UNDER VFR CONDITIONS IN
AREAS INDICATED HEREON, NORMALLY MON-FRI
:GHT HOURS. MOST OF THE TRAINING WILL CON-
OF ACROBATIC MANEUVERS, TRANSITION AND
MATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE
OURAGED TO CONTACT THE FLIGHT SERVICE STA-
:S AND MILITARY TOWERS INDICATED FOR INFOR-
ON ON TRAINING ACTIVITIES BEING CONDUCTED
OR TO TRANSITING THESE AREAS.

FLIGHT SERVICE STATIONS

ALICE
AUSTIN
BROWNSVILLE C/ST
COLLEGE STATION
COTULLA
GALVESTON
HOUSTON
JUNCTION
McALLEN
MIDLAND
PALACIOS
SAN ANGELO C/ST
SAN ANTONIO
WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	118.9 134.1
LAREDO AFB	122.5R 118.5T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2

FORT RUCKER STUDENT TRAINING


Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-2400 MON-FRI
CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING SURFACE TO 5000 MSL 0600-1800 MON-FRI
R-2103
HANCHEY (AAF) HEY 112.4
CAIRNS AAF OZR 111.2
DOTHAN DHN 111.6 Ch 53
EUFAULA EUF 109.2
CRESTVIEW CEW 115.9 Ch 106
MARIANNA MAI 114.0
WEEDON
Eufaula
Clayton
Troy
TROY
GREENVILLE
Greenville
McGOWIN (Pvt)
LUVERNE
Luverne
GOSHEN
BANKS
RUTLEDGE
BRUNDIDGE
Brundidge
CLIO
SKIPPERVILLE
BAKERHILL
ABBEVILLE
Abbeville
BRANTLEY
1052
ELBA
Elba
New Brockton
SHELL AAF
LOWE AAF
Enterprise
ENTERPRISE
SKELLY AAF
BLACKWELL
HUNT (ARMY)
HANCHEY (ARMY)
Fort Rucker
CAIRNS AAF
Midland City
DOTHAN
Headland
HEADLAND
1549
BAKER SKYTEL
Ashford
PANSEY
Andalusia
ANDALUSIA
Opp
Samson
Hartford
GENEVA
Geneva
DARLINGTON
Lockhart
Florala
ROME
ALA FLA
ROCKIN H RANCH (Pvt)
BOB SIKES
DE FUNIAK SPRINGS
Bonifay
Chipley
CHIPLEY
MARIANNA
Marianna
STAGE (Pvt)
DONALSONVILLE
Donalsonville
SPRING
JIM WOODRUFF RES
CHATTAHOOCHEE R
GREAT SOUTHERN
ALA GA
WALTER F GEORGE LAKE
Blakely
EARLY CO
GAY FARM
Cuthbert
SAWMILL
Edison
Arlington
Colquitt
V7
V7W
V22
V70
V115
V159
V241
V241W
V454

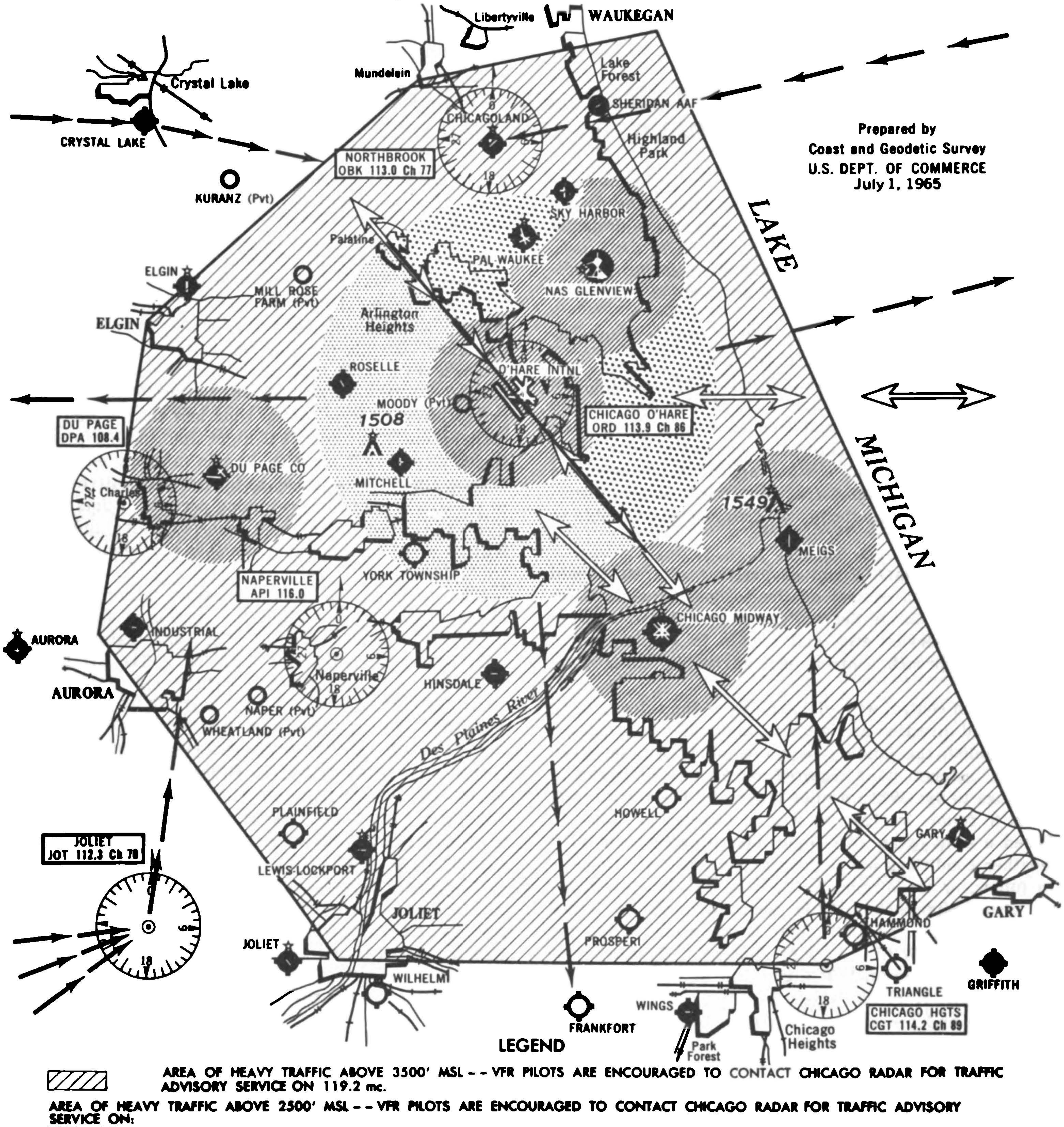
SPECIAL NOTICE
ALABAMA - GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns RAPCON located at Fort Rucker on 125.4, 237.5 or 234.4.

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Mundelein
Lake Forest
Crystal Lake
CRYSTAL LAKE
SHERIDAN AAF
CHICAGOLAND
Highland Park
NORTHBROOK OBK 113.0 Ch 77
KURANZ (Pvt)
SKY HARBOR
LAKE
Palatine
PAL WAUKEE
NAS GLENVIEW
ELGIN
MILL ROSE FARM (Pvt)
ELGIN
Arlington Heights
ROSELLE
O'HARE INTNL
MOODY (Pvt)
1508
CHICAGO O'HARE ORD 113.9 Ch 86
DU PAGE DPA 108.4
DU PAGE CO
MITCHELL
St Charles
1549
MICHIGAN
MEIGS
NAPERVILLE API 116.0
YORK TOWNSHIP
CHICAGO MIDWAY
AURORA
INDUSTRIAL
Naperville
HINSDALE
AURORA
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
GARY
JOLIET JOT 112.3 Ch 70
LEWIS-LOCKPORT
GARY
JOLIET
HAMMOND
JOLIET
PROSPERI
TRIANGLE
GRIFFITH
WILHELMI
WINGS
FRANKFORT
Park Forest
Chicago Heights
CHICAGO HGTS CGT 114.2 Ch 89

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

▓ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L

░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▩ AIRPORT TRAFFIC AREA – – CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC ⟶

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 034° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. inbound on 282° thru 100° use 119.7 mc. **Departure freq:** 120.4 or 381.4 mc when advised by tower.

Norfolk Municipal Airport, Virginia

Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 118.9 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting, will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF.

Washington National Airport District of Columbia

Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P-56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 118.3 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information service (WTIS) on 118.3 mc or 306.3 mc.

● Dulles International Airport District of Columbia

Effective date: October 15, 1966

Area in which service is provided: Approximately 20 mile radius of Dulles International Airport excluding Prohibited Areas P–56, Restricted Area R–6608 and the Airport Traffic Areas of Washington National Airport, Andrews AFB and Davison Army Air Field. **Arrival Frequencies:** 126.1 mc or 350.2 mc. Aircraft not equipped for two-way communication on 126.1 mc should transmit on 122.7 mc and listen on 126.1 mc. **Departure Frequencies:** 125.55 mc or 322.5 mc when advised by the tower.

NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective November 1966.

Alabama

Athens, Magnusson Fld 1E
Bayou La Batre, Roy E. Ray 4NE
•Foley, Chisenhall 1 S
Hazel Green, Chess King Airpark 4 W
Jackson Muni 2S
•Pell City, St. Clair County 3 SE
St. Elmo, Sky Ranch 2.5N
Selma, Wiseman 4.5 SW

Arizona

Arizona City 1S
Bouse 0.5E
Tolleson, Moseley Fld 3N

Arkansas

Berryville, Carroll County 3.5 W
Booneville Sanatorium 3 E
Osceola Muni 2 W
Watson, Shilow 7 SE

California

Brentwood, Detla Airpark 5 N
Desert Center 5 NE
Midland 1 S
Ojar, Henderson Fld 3 SW
Pleasant Grove, Van Dyke 3 N

Colorado

Gardner, Leavell Cattle Co. 17 NW
Greeley, Easton 7.5SE
Rocky Ford, Mellon Fld 3 SW

Florida

•Plant City, Tampa/Brandon/Plant City Arpk
Winter Haven Muni Seaplane Base 3 NNW

Georgia

Asburn, Turner Co. 1 SW
Canon, Franklin Co. 2.5 SW
Jesup, Redlands 5 NW
Newnan, Newnan-Coweta County 4 S
Patterson, Forestry 2 SE
Sylvester, Worth County 4 NW
Tifton, Eaglehead 6 WSW

Illinois

Baldwin, Redpath 2 E
•Franklin Grove, Full 3 NE
Rushville, Flying Club 2.5 NE
•Spring Valley, Valley 1 NW

Indiana

Batesville, Hillenbrand Industries 3 NW
Mentone, Manwaring 0.8 NW
Vevay, Robinson 8 SW

Iowa

•Albia Muni 3.8 SE
•Albion, Leise 2.6 NE
•Cedar Rapids, Welty Way Heliport 2 SW
Mount Veron, Tonne 4.0 N
Sidney, Knox 3 WSW
Wapello, Brockway Flying B 2.5 NW

Kansas

Salina Muni 3 SW

Kentucky

Columbia, Ludot 2 SW
Russellville, Russellville-Logan County 5 SE

Louisiana

Bassier City, Scopena Plantation 10 SE
Belle Rose, Cone Air 1 W
Cottonport Flying Service 0.3 W
Coushatta, Hanna 1 S
Darnell, Boyou Meadows Airstrip 4 NE
Lafayette Heliport 2 SE
Melville, Hanks 1 S
Mer Rouge, Bacon 1 S
Mora, James 4 E
Patterson, Tri Ville Aviation Inc Seaplane Base 1 SE
St. Joseph, Hunter May 4 N
St. Martinville adj NE
Senath, Reynolds Fld 3.8 SE
Shreveport, Aero Enterprises 7.1 S
Starks 3 S
Tendal 4 B Ranch 2 SE
Transylvania, Batton 3 W

Michigan

Selkirk, Thompson 0.3 SE

Maine

Rangley, Davis Marine Seaplane Base 2 S

Minnesota

•Buffalo Muni 1.0 SE
Hallock Muni 1 S
•Park Rapids, Sky Manor Aero Estates 9 N

Mississippi

Fort Adams, Kees Ranch 8 N
Lucidale, Farmco Fld 11 S
Monticello, Clay 1 N
●Okalona, Leuth Flying Service 5 S
Tylertown 2.5 NW

Missouri

Desota 0.5 E
Lewiston 1.5 SE
Montgomery City, Pleasant Acres 5 NE

Montana

Anaconda, Mt. Haggins Landing Strip 11.5 SW
Frazer (Fort Peck) Browns Airfield 14 S
Lustre, Wall 6 NE

Nebraska

●Hyannes, Davis Ranch 13 N
Oxford 2 W
Weissert 0.2 SE

Nevada

Coaldale 1 S
Fernley, Southwest Gas Airstrip 3 SE
Pahrump, Hidden Hills 16 SE
Round Mountain, R. O. Ranch 15 N
Wellington, Valley View Arpk 5 NNW

New Jersey

●Borgantown, Nordheim Flying K Ranch 1 NW
Newton 1.9 S

New Mexico

Loco Hills 0.2 S
Roy Muni Adj SW

New York

Alexandria Bay, Maxson Fld 1.3 S
Brant Air Service Landing Area 0.9 SW
West Bloomfield Flying Club 1.5 SW

North Carolina

●Boone, Blowing Rock 2.7 SE
●Long Beach, Brunswick Co. 2 N
●Macon, Mocarva 7 N
●Mebane, Hurdle Fld 1.8 SSE

North Dakota

Rutland, Pearson 4.5 N

Ohio

Galloway, Columbus Arpk, Inc. 3 NE of West Jefferson
Coalgate, Rice 0.5 E of Clarita

Oklahoma

●Briston, Jones Meml 1 SW
Dustin 2 SE
●Edmond, Service 2.5 NE
●Eufaula, Canadian Fork 4 SE

South Carolina

Estill Muni 2 S
Union County 2 SW

Tennessee

Cedar Hill, Flying W Ranch 7 S
Spring Hill, Haynes Haven Farm 3 SW

Texas

●Balmorhea Lake 2 SE
Clifton Muni 2 N
●Elbert, Bailes 1 E
Eldorado, Derrick Ranch 21 E
Fort Worth, Oak Grove Heliport 13 S
Graford, Harmar Marina 12 WSW
Grandview, McLeroy Ranch 2 NNW
Honey Grove, Burchinal 2 W
●Lampass County 2 N
Laredo, Link Ranch 6 S
Martin, Huff Fld 1 SE
Mesquite, Cole 5 SE
Perryton, Harbaugh 22S
Port Lavaca, Calhoun County 4 NW
Sabinal, McCullough Ranch 12 N
San Marcos Muni 5 E
Vernon, Lockett 6 SW
Zapata, Jennings Ranch 18 NE

Virginia

●Basye, Sky Bryce 1.5 NE
Hopewell Seaplane Base 3 E
Norfolk Heliport Downtown Area
Oak Grove, Harbor View 1.8 NE

Washington

Enumclaw 1.4 WSW
Stanwood, Strev Air 3 NW

West Virginia

Alderson, Riverside 1 W

Wisconsin

Park Falls Muni 1 NE
●Tony, Lake Flamebeau Rusk Co Seaplane Base 1 NW
●Verona, Verona Acft and Transportation Inc. 2 NE

Wyoming

Marshall, Robbins 2 S

Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

Alabama

Bayou La Batre, Bay View 7 E (a)
Haynesville, Beechwood 5 SW (c)

Arizona

Somerton, McDanell Fld 3 W (c)
Stanfield Adj NW (a)

Arkansas

Berryville 1 NW (a)
Gassville, Red Bud Trout Dock 1 S (a)
Hunstville, Reeves 2 SE (a)
Stuttgart, Grandgeorge 7 SE (c)

California

Buttonwillow-Kern Co. (a)

Connecticut
Marlborough-Lesenwski 3 SE (c)

Delaware
Magnolia, Johnson adj W (c)

Florida
Everglades 1 SW (a)
Geneva, Bruce 3 SE (a)
Orofino, Moose Creek Ranch 59 SE (c)
Samsula, Spruce Creek 3 N (a)

Illinois
●Amboy-Albrercht 5 S (c)
●Lebanon, Lebert Strip 1 SE (c)
●Monticello, Allberton Park 2 W (c)
Tinley Park, Prosperi 1 W (a)
●Waterloo, Dugan 1 S (c)

Indiana
● Chesterton, Bodin 2 NE (c)

Kansas
●Baxter Springs, Y and M (c)
Benton, Nelson Fld adj SW (c)
Geneseo, Kratzer 5 NW (a)
Lorraine, Wilkens 2 SW (a)
Pratt, Fincham 10 N (a)
Pretty Prairie, Unrich 3 NE (c)
Salina Muni 2 SE (a)
Scott City, Kough 20 NW (c)
Wakeeney, Gallaway 3 NE (c)

Louisiana
Hackberry adj NW (a)
● Harvey Seaplane Base Adj S (a)
Montgomery, Hall 1 NW (a)
New Iberia, Dugas 3N (a)
Wisner Airstrip 1 W(c)

Maryland
Baltimore, Rutherford 7 NW (c)
Silesia, Bower Fld 2 N (c)

Michigan
Gaylord, Au Sable Ranch 5 SE (c)

Mississippi
Belzoni Charter Service 1 E(a)
Magnolia, Progress 10 SE(a)

Missouri
●Gravois Mills, Adkins 3 SE (c)
St. Joseph, Eastside 1 E(a)

Montana
Gallatin Gateway, Nine Quarter Circle Ranch 32 S (c)
Havre, Davis 10 NE (c)
Lodge Grass, Pope 8 SE (a)
●Sand Springs, Kreider Ranch Adj S (c)

Nebraska
●Elkhorn, St. Johns Seminary 2 NW (c)
●Lincoln, Eden Sky Ranch 1 E (c)

New York
Albany, Tallent Fld 6.5 SW(a)
Chippewa Bay, Allens Fld 2 NW (a)
Kerhonkson, Piolis Brookside 4 NNW(c)
Lafargeville, Tims Angus Farms 3 E (c)
Lockport, Cambria 4 NW (c)

North Carolina
Gibsonville, McLean Bros 1 SW(c)

Ohio
Amelia, Sky Hill NE (a)
Caldwell, Myrtle Fld 3 S (a)
Canal Winchester, Anderson 3 SE (c)
Circleville, Elsea 2 N (a)
Cleveland, Burke Lakefront Seaplane Base 1 N (a)
●Morrow 2 SW (a)
Norwalk, 2N (a)
Tiffin, Circle V Flying Fld 4SW (a)

Oklahoma
Muscogee, Schumacher 3 S(a)

Pennsylvania
Hawley-Greenetown Mountain Bay, Lake Wallenpaupack 6 SW (a)
Mahanoy City, Bedinsky 2 SE (c)
●Matamoras Muni Adj SE (a)

Texas
Arlington, Lucas 3 SW (c)
Azle, Atwood 3 NW (a)
Cotton Center Starnes 7 S (a)
Palacios, Richman 5 NE (c)
Pecan Gap 1 SW (c)
San Angelo, West Texas Boys Ranch 15 SW (a)
San Antonio, Intl Heliport 7 N (a)
● San Antonio, Riverview Arpk 9 SW
Sanderson 2 W (a)
Sudan Adj S (a)
Valentine 1 NW (a)

Utah
Torrey 1 S (a)

Washington
● Carson Adj S (a)

West Virginia
Fairmont Muni 2 SE (a)

Wisconsin
Neenah, Valley Airways 3 SW (c)
Park Falls, Robbel 1 NW (a)
Plymouth, Carm 2 NW (a)
Sturtevant, Air City (a)

MILITARY AERIAL REFUELING TRACKS

Effective February 7, 1966

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 072/88		FSD 003/67.
		MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak., Iowa. Minn.	GSG 092/77		FSD 346/42.
		MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N. Dak., S. Dak.	FAR 225/42		SAW 242/39.
		SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N. Dak., S. Dak.	ABR 038/37		SAW 219/62.
		SAW 151/64		FAR 137/65.
AR-110 Advance	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
		LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
AR-307 Big Fish	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
AR-308 Blue Cross	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription on request to the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Md. 20852 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section II-A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B-52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,300' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL; to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

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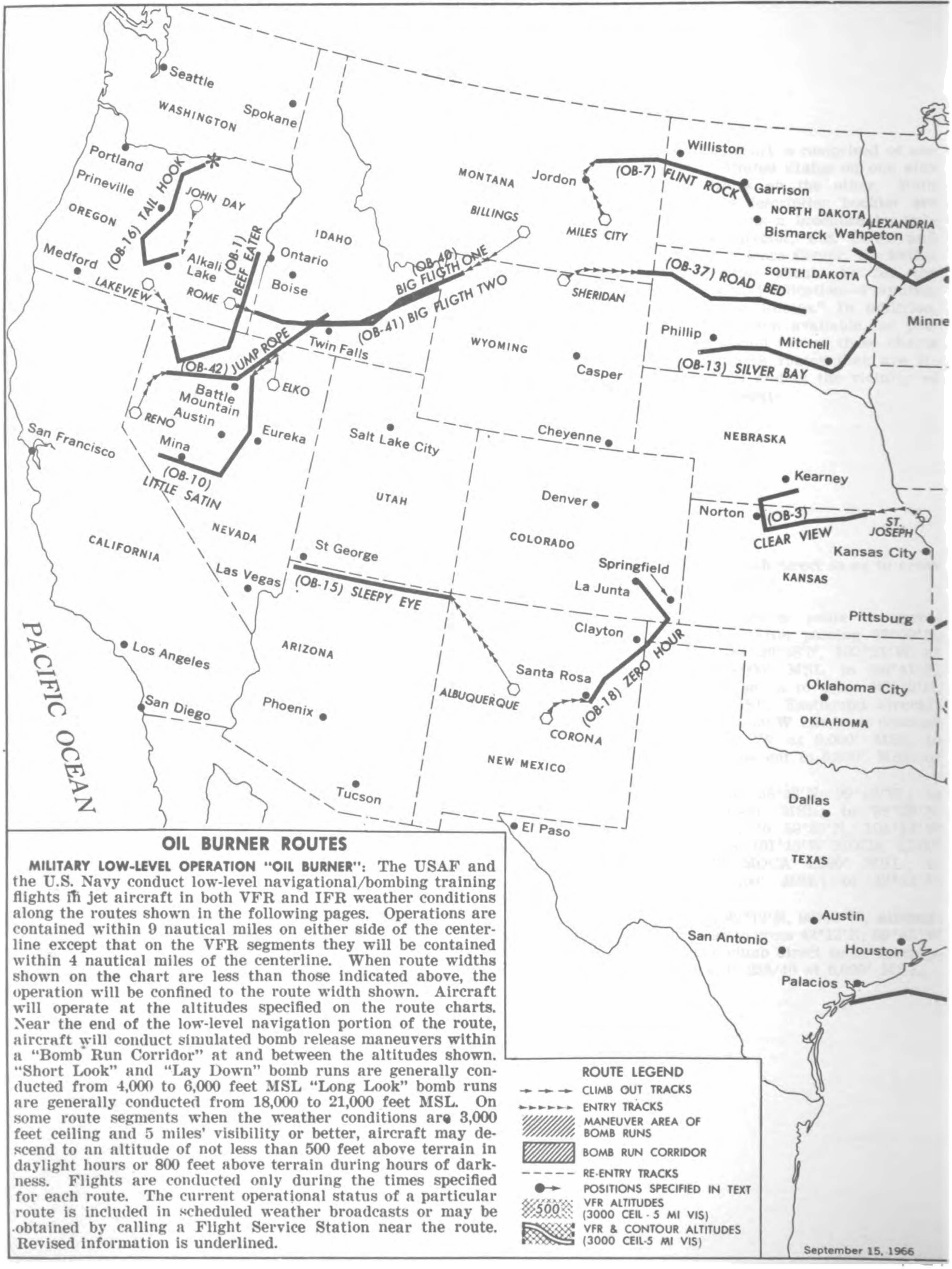
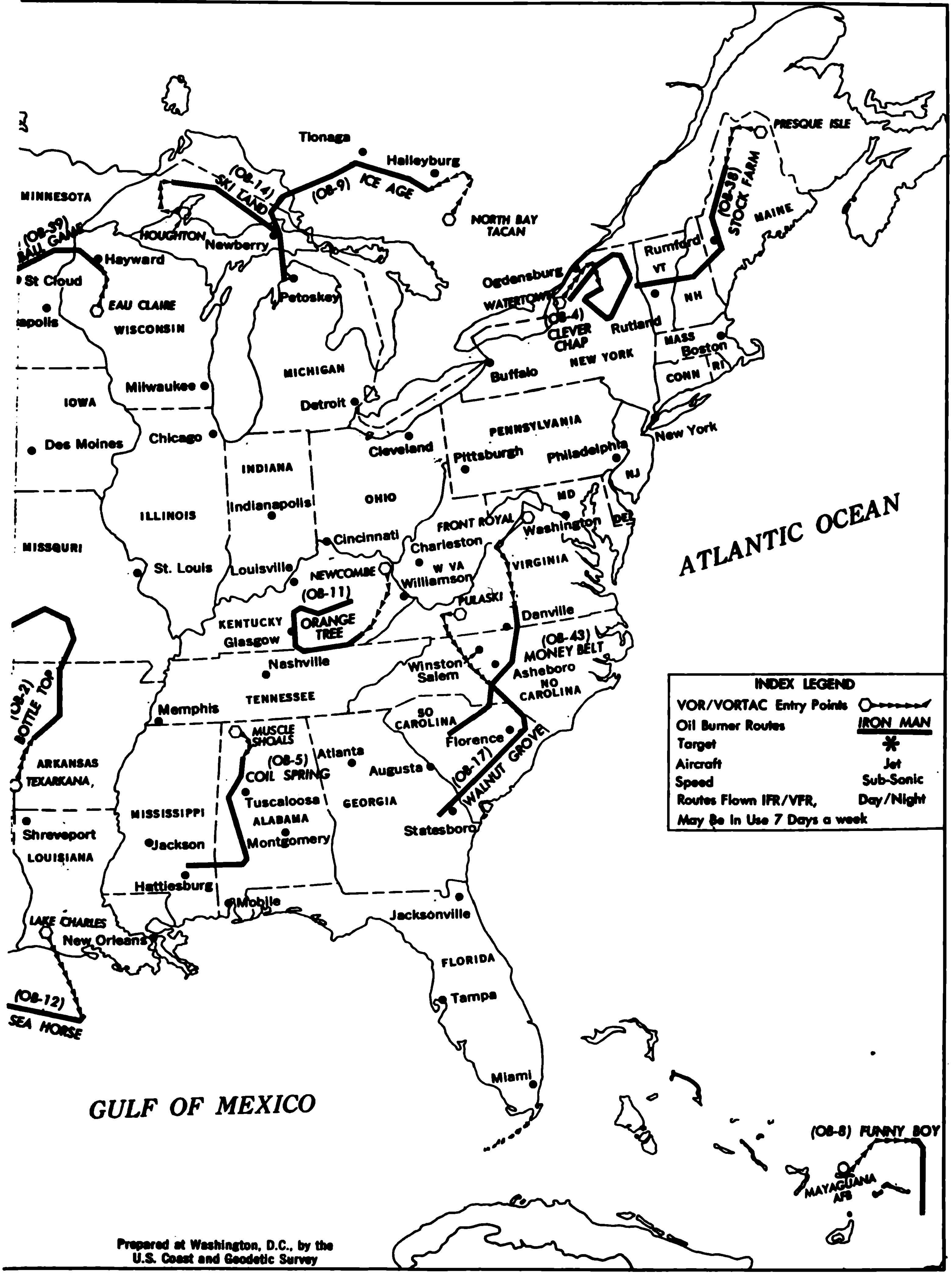
INDEX OF OIL BURNER ROUTES


Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
(OB-1) BEEF EATER
ROME
LAKEVIEW
IDAHO
Ontario
Boise
(OB-40) BIG FLIGTH ONE
(OB-41) BIG FLIGTH TWO
Twin Falls
(OB-42) JUMP ROPE
ELKO
Battle Mountain
Austin
RENO
Mina
Eureka
(OB-10) LITTLE SATIN
San Francisco
NEVADA
CALIFORNIA
Las Vegas
St George
(OB-15) SLEEPY EYE
UTAH
Salt Lake City
MONTANA
BILLINGS
Jordon
MILES CITY
(OB-7) FLINT ROCK
Williston
Garrison
NORTH DAKOTA
Bismarck
Wahpeton
ALEXANDRIA
SOUTH DAKOTA
(OB-37) ROAD BED
SHERIDAN
WYOMING
Casper
Phillip
Mitchell
(OB-13) SILVER BAY
Minne
Cheyenne
NEBRASKA
Kearney
Norton
(OB-3) CLEAR VIEW
ST. JOSEPH
Kansas City
KANSAS
Denver
COLORADO
Springfield
La Junta
Clayton
Pittsburg
(OB-18) ZERO HOUR
Santa Rosa
CORONA
ALBUQUERQUE
NEW MEXICO
Oklahoma City
OKLAHOMA
PACIFIC OCEAN
Los Angeles
San Diego
ARIZONA
Phoenix
Tucson
El Paso
Dallas
TEXAS
Austin
San Antonio
Houston
Palacios
ROUTE LEGEND
CLIMB OUT TRACKS
ENTRY TRACKS
MANEUVER AREA OF BOMB RUNS
BOMB RUN CORRIDOR
RE-ENTRY TRACKS
POSITIONS SPECIFIED IN TEXT
500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)
September 15, 1966

OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

INDEX OF OIL BURNER ROUTES


Tionaga
Haileyburg
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
MINNESOTA
(OB-39) BALL GAME
HOUGHTON
Newberry
Hayward
St Cloud
EAU CLAIRE
apolis
WISCONSIN
Petoskey
MICHIGAN
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
Rutland
NEW YORK
PRESQUE ISLE
(OB-38) STOCK FARM
MAINE
Rumford
VT
NH
MASS
Boston
CONN
RI
Buffalo
IOWA
Milwaukee
Detroit
Des Moines
Chicago
Cleveland
PENNSYLVANIA
Pittsburgh
Philadelphia
New York
NJ
INDIANA
Indianapolis
OHIO
ILLINOIS
MD
DEL
FRONT ROYAL
Washington
Cincinnati
Charleston
W VA
Williamson
VIRGINIA
ATLANTIC OCEAN
MISSOURI
St. Louis
Louisville
NEWCOMBE
(OB-11) ORANGE TREE
PULASKI
Danville
KENTUCKY
Glasgow
(OB-43) MONEY BELT
Nashville
Winston Salem
Asheboro
NO CAROLINA
TENNESSEE
(OB-2) BOTTLE TOP
Memphis
SO CAROLINA
Florence
MUSCLE SHOALS
(OB-5) COIL SPRING
Atlanta
Augusta
(OB-17) WALNUT GROVE
ARKANSAS
TEXARKANA,
Tuscaloosa
GEORGIA
ALABAMA
MISSISSIPPI
Shreveport
Jackson
Montgomery
Statesboro
LOUISIANA
Hattiesburg
Mobile
Jacksonville
LAKE CHARLES
New Orleans
FLORIDA
Tampa
(OB-12) SEA HORSE
Miami
GULF OF MEXICO
(OB-8) FUNNY BOY
MAYAGUANA AFB
INDEX LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes
IRON MAN
Target
Aircraft — Jet
Speed — Sub-Sonic
Routes Flown IFR/VFR, — Day/Night
May Be In Use 7 Days a week

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

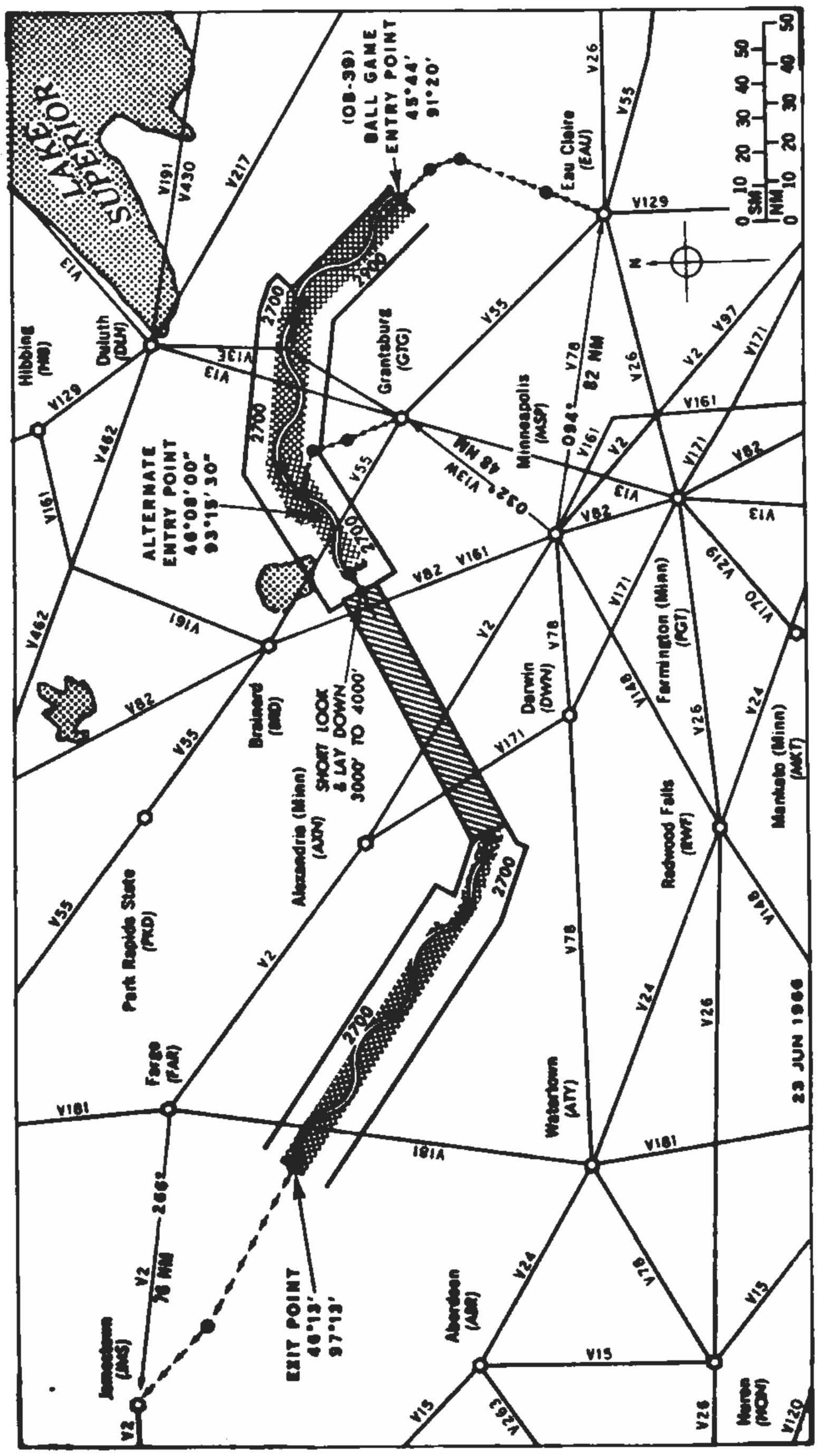
OIL BURNER ROUTES

MINNESOTA/NORTH DAKOTA/SOUTH DAKOTA/ WISCONSIN

BALL GAME OB-39

•Effective August 1, 1966 thru January 21, 1967

Aircraft shall cross Minneapolis VORTAC 094/82 DME fix (Eau Claire, Wisc. VOR) at FL 230 or as assigned by ARTCC; then at FL 230 or assigned altitude direct to 45°08'N, 91°20'W; then start descent so as to cross 45°29'N, 91°07'W at or below 11,000' MSL; then turn left descending to 45°37'N, 91°10'W; then continue descent direct so as to cross 45°44'N, 91°20'W, the low level entry point, at 2,900' MSL; then at 2,900' MSL direct 46°10'N, 91°56'W; then turn left descending so as to cross 46°12'N, 92°02'W at 2,700' MSL; then at 2,700' MSL direct to 46°16'30"N, 92°56'W; then at 2,700' MSL direct to 46°00'N, 93°35'30"W then climb so as to cross 45°57'N, 93°42'W at 3,000' MSL.



LAKE SUPERIOR
(OB-39) BALL GAME ENTRY POINT 45°44' 91°20'
Eau Claire (EAU)
Grantsburg (GTG)
Duluth (DLH)
Hibbing (HIB)
Minneapolis (MSP)
094°
82 NM
032°
48 NM
ALTERNATE ENTRY POINT 46°08'00" 93°15'30"
Brainerd (BRD)
Alexandria (Minn) (AXN)
SHORT LOOK & LAY DOWN 3000' TO 4000'
Park Rapids State (PKD)
Darwin (DWN)
Farmington (Minn) (FGT)
Redwood Falls (RWF)
Mankato (Minn) (MKT)
Fargo (FAR)
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
Jamestown (JMS)
266°
76 NM
EXIT POINT 46°13' 97°13'
2900
2700
0 10 20 30 40 50 SM
0 10 20 30 40 50 NM
N
V2
V13
V13E
V13W
V15
V24
V26
V55
V78
V82
V97
V129
V148
V161
V170
V171
V181
V191
V217
V219
V263
V430
V462
23 JUN 1966

Short Look and Lay Down—After passing 45°57'N, 93°42'W, aircraft shall operate between 3,000' MSL and 4,000' MSL through the bomb run corridor (4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N, 95°10'W). After exiting the bomb run corridor at 45°25'W, 95°10'W, aircraft shall descend direct so as to cross 45°31'N, 95°36'W at 2,700' MSL; then at 2,700' MSL direct 46°13'N, 97°13'W. After exiting the route at 46°13'N, 97°13'W, aircraft shall start climb so as to cross 46°39'N, 98°12'W at FL 200 or above; then climb direct so as to cross Fargo, N.D. VORTAC DME 266/76 fix (Jamestown, N.D. VOR) at FL 250.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°44'N, 91°20'W to 46°00'N, 93°35'30"W and from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Alternate Entry—Aircraft shall cross the Minneapolis VORTAC 032/48 DME fix (Grantsburg, Wisc. VOR) at FL 230 or as assigned by ARTCC, then descend so as to cross 46°00'N, 92°47'30"W at 17,000' MSL or above; then continue descent direct so as to cross 46°08'N, 92°51'30"W at 13,000' MSL or above; then turn left continuing descent so as to cross 46°12'N, 93°06'W at 7,000' MSL; then continue descent so as to cross 46°08'N, 93°15'30"W at 2,700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM on the northeast side of centerline from 45°44'N, 91°20'W to 46°10'N, 91°56'W and 4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N 95°10'W and 4 NM on the north side of centerline from 45°25'N, 95°10'W to 45°31'N, 95°36'W. The VFR route width is reduced to 2 NM on the northwest side of centerline from 46°08'N, 93°15'30"W to 46°00'N, 93°35'30"W and to 2 NM on the north side of centerline from 45°25'N, 95°10'W to 45°35'N, 95°45'W and to 2 NM on the south side of centerline from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Hours of Operation—24 hours daily, 7 days a week.

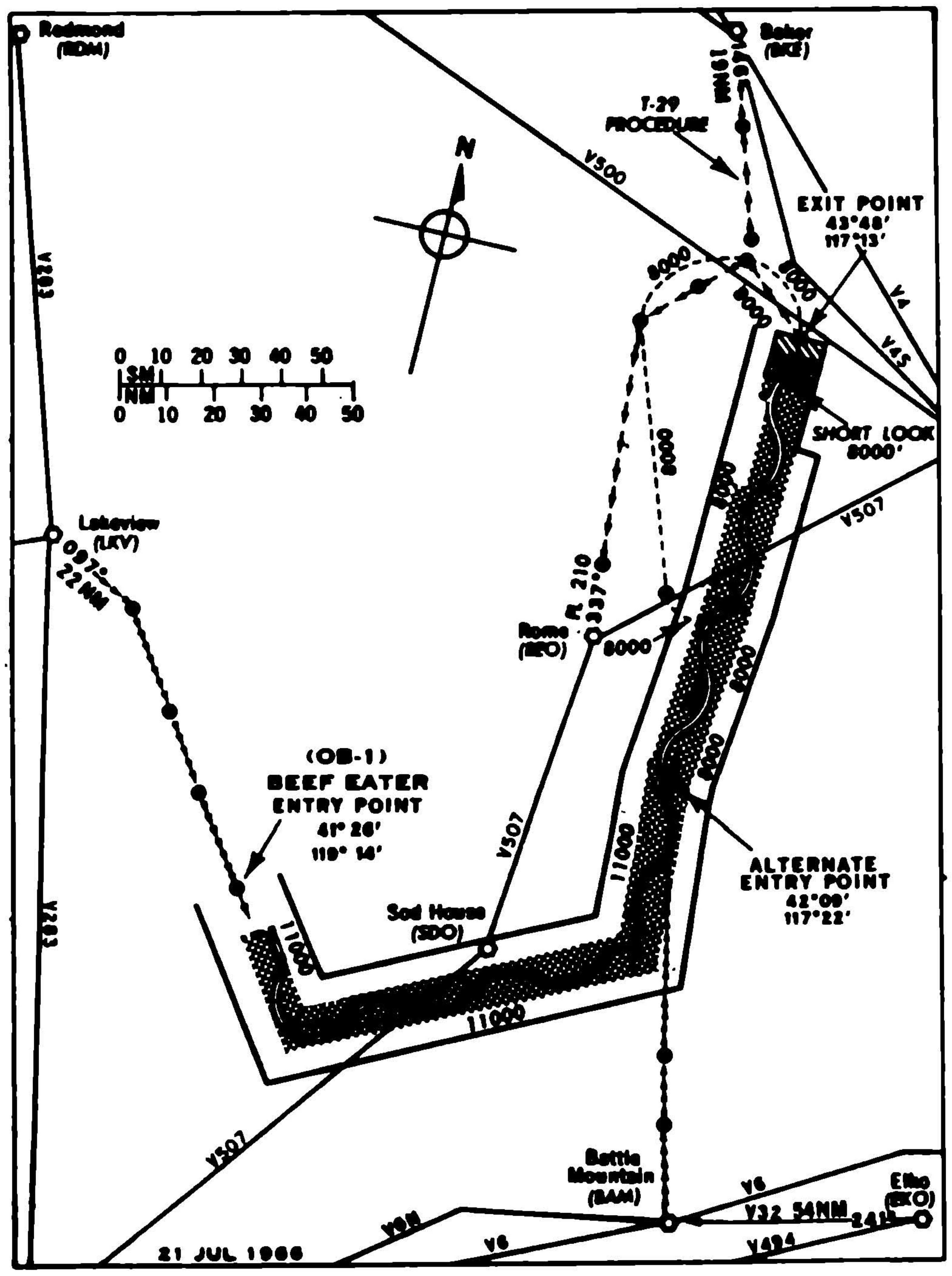
NEVADA/OREGON

BEEF EATER OB-1

Revised Effective June 19, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC;

then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°20'N, 120°04'W); then descend direct to cross 42°00'N, 119°45'W at or below FL 230; then descend direct so as to cross 41°44'N, 119°31'W at or above 16,000' MSL; then descend direct so as to cross the entry point of the low level route at 41°26'N, 119°14'W at 11,000' MSL; then at 11,000' MSL direct to 40°58'N, 118°49'W, then 11,000' MSL direct 41°31'N, 117°20'W, 11,000' MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40' N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 210, then maintain FL 210 via the Rome, Oregon 337 radial to the Rome, Oregon VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°17'N, 119°06'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W then descend direct so as to cross 41°10'N, 117°05'W at or above 12,000' MSL; then descend direct so as to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 3 NM on the west side of centerline from 41°17'N, 119°06'W to 40°58'N, 118°49'W and to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T–29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

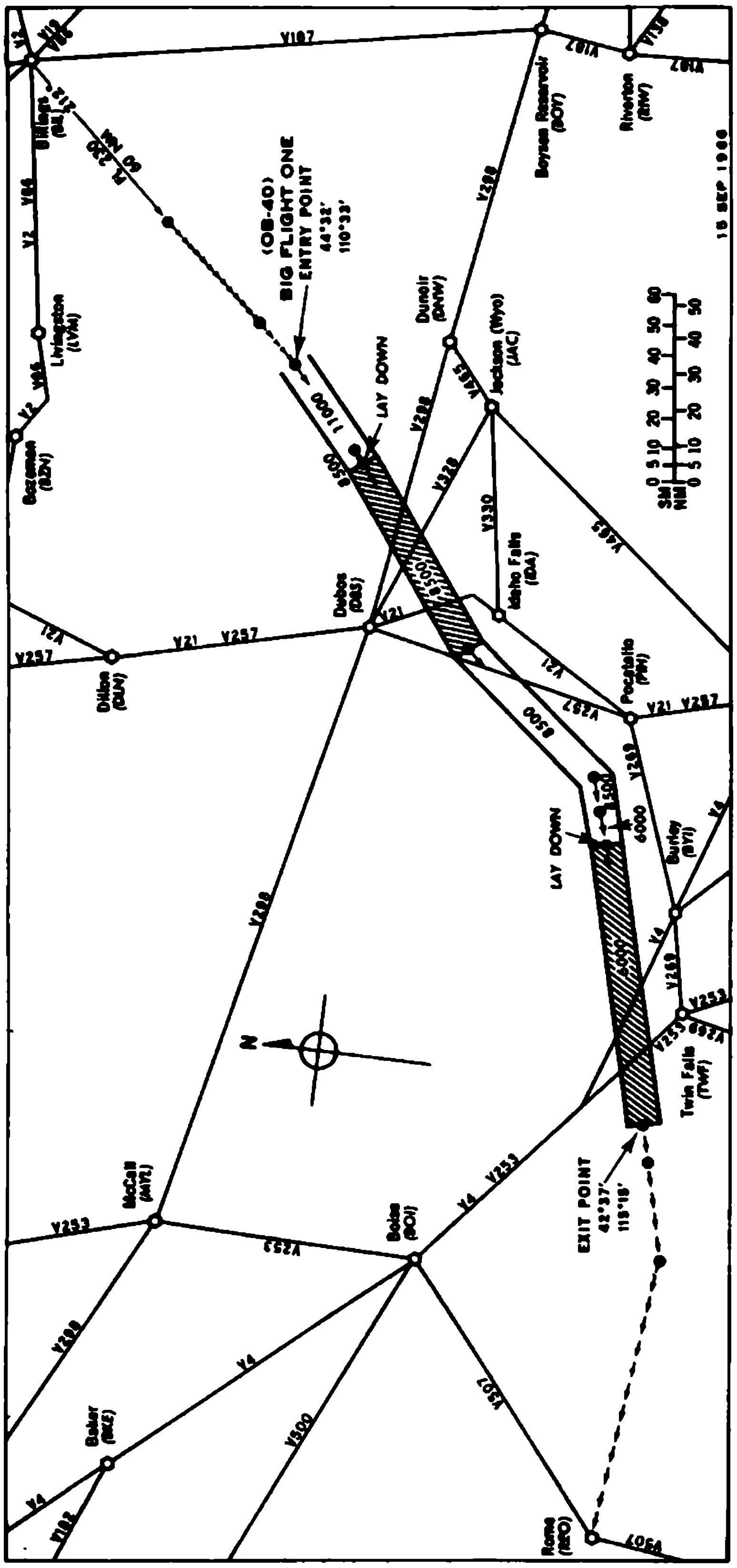
IDAHO/WYOMING

•BIG FLIGHT ONE OB–40

Effective September 28, 1966 thru October 9, 1966

Aircraft shall cross the Billings, Montana VORTAC at FL 230; then at FL 230, direct to the Billings, Montana VORTAC 212/60 DME FIX (45°09'N, 109°40'W); then descend direct so as to cross 44°42'30''N, 110°18'W at or above 14,000' MSL; then descend direct so as to cross 44°32'N, 110°33'W (route entry point) at 11,000' MSL; then at 11,000' MSL direct to 44°15'N, 111°05'W; then descend direct so as to cross 44°12'N, 111°10'W at 8,500' MSL.

Lay Down—After passing 44°12'N, 111°10'W aircraft shall maintain 8,500' MSL through the first bomb run corridor (4 NM either side of centerline from 44°12'N, 111°10'W to 43°37'30''N, 112°19'W) after exiting the bomb run corridor at 43°37'30''N, 112°19'W aircraft shall maintain 8,500' MSL direct 43°00'N, 113°04'W; then at 8,500' MSL direct 42°58'N, 113°17'W; then descend direct so as to cross 42°55'30''N, 113°30'W at 6,000' MSL (the entry of the second bomb run corridor). After passing 42°55'30''N, 113°30'W, aircraft shall maintain 6,000' MSL through the bomb run corridor (4 NM either side of centerline from 42°55'30''N, 113°30'W to 42°37'N, 115°15'W). After exiting the route at 42°37'N, 115°15'W aircraft shall climb so as to cross 42°34'30''N, 115°28'W at or above 7,800' MSL; then continue climb direct to 42°27'30''N, 116°05'W; then climb direct so as to cross the Rome, Oregon VORTAC at FL 370.


(OB-40)
BIG FLIGHT ONE
ENTRY POINT
44°32'
110°33'
LAY DOWN
LAY DOWN
EXIT POINT
42°37'
115°15'
Billings (BIL)
Livingston (LVM)
Bozeman (BZN)
Dunoir (DNW)
Jackson (Wyo) (JAC)
Boysen Reservoir (BOY)
Riverton (RIW)
Dubois (DBS)
Idaho Falls (IDA)
Pocatello (PIH)
Dillon (DLN)
Burley (BYI)
Twin Falls (TWF)
McCall (MYL)
Boise (BOI)
Baker (BKE)
Rome (REO)
V187
V2
V86
V19
V298
V330
V465
V21
V257
V253
V4
V500
V182
V269
N
SM
NM
0 5 10 20 30 40 50 60
15 SEP 1966

Route Width—The route is reduced to 4 NM on either side of centerline from 44°32'N, 110°33'W to 42°37'N, 115°15'W.

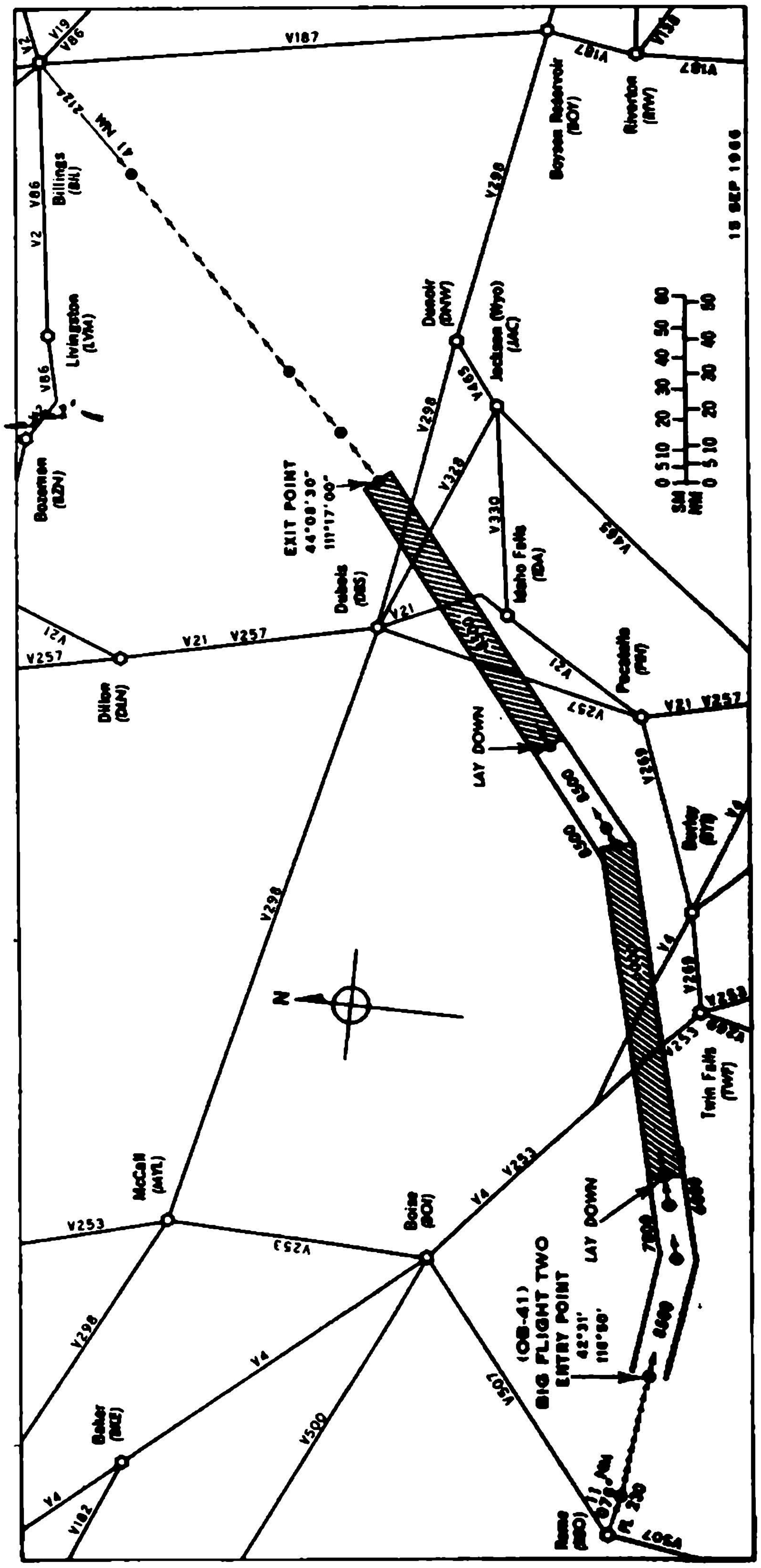
Hours of Operation—0500Z to 1200Z.

IDAHO

●BIG FLIGHT TWO OB-41

Effective September 28, 1966 thru October 9, 1966

Aircraft shall cross the Rome, Oregon VORTAC at FL 230; then at FL 230 proceed via the Rome, Oregon VORTAC 076° radial direct to the 076/11 DME FIX (42°34'30''N, 117°37'W) then descend direct so as to cross 42°31'N, 116°50'W (low level entry point) at 8,500' MSL, then at 8,500' MSL direct 42°27'30''N, 116°05'W; then descend so as to cross 42°31'30''N, 115°45'W at 7,800' MSL; then descend direct so as to cross 42°33'30'' N, 115°34'W at 6,000' MSL.


EXIT POINT
44°08'30"
111°17'00"
LAY DOWN
(OB-41)
BIG FLIGHT TWO
ENTRY POINT
42°31'
116°50'
LAY DOWN
Billings (BIL)
Livingston (LVM)
Bozeman (BZN)
Dunoir (DNW)
Jackson (Wyo) (JAC)
Boysen Reservoir (BOY)
Riverton (RIW)
Dubois (DBS)
Idaho Falls (IDA)
Pocatello (PIH)
Dillon (DLN)
Burley (BYI)
Twin Falls (TWF)
McCall (MYL)
Boise (BOI)
Baker (BKE)
Rome (REO)
V187
V2
V86
V19
V298
V330
V465
V21
V257
V253
V4
V500
V182
V269
N
SM
NM
0 5 10 20 30 40 50 60
15 SEP 1966

Lay Down—After passing 42°33'30''N, 115°34'W, aircraft shall maintain 6,000' MSL through the bomb run corridor (4 NM either side of centerline from 42°33'30'' N, 115°34'W to 42°55'30''N, 113°30'W). After exiting the first bomb run corridor at 42°55'30''N, 113°30'W, aircraft shall climb so as to cross 42°59'N, 113°24'W at 8,500' MSL; then at 8,500' MSL direct to 43°16'N, 112°53'W (entry of the second bomb run corridor). After passing 43°16'N, 112°53'W aircraft shall maintain 8,500' MSL through the bomb run corridor (4 NM either side of centerline from 43°16'N, 112°53'W to 44°08'30''N, 111°17'W). After exiting the route at 44°08'30''N, 111°17'W; aircraft shall climb direct so as to cross 44°20'N, 110°59'W at or above 12,000' MSL; then continue climb direct so as to cross 44°35'N, 110°36'W at FL 240 or below; then continue climb direct so as to cross 45°22'N, 109°21'W (Billings, Montana VORTAC 212/41) at FL 370.

Route Width—The route width is reduced to 4 NM on either side of centerline from 42°31'N, 116°50'W to 44°08'30''N, 111°17'W.

Hours of Operation—0500Z to 1200Z.

ARKANSAS/MISSOURI

BOTTLE TOP OB-2

Revised Effective April 24, 1966

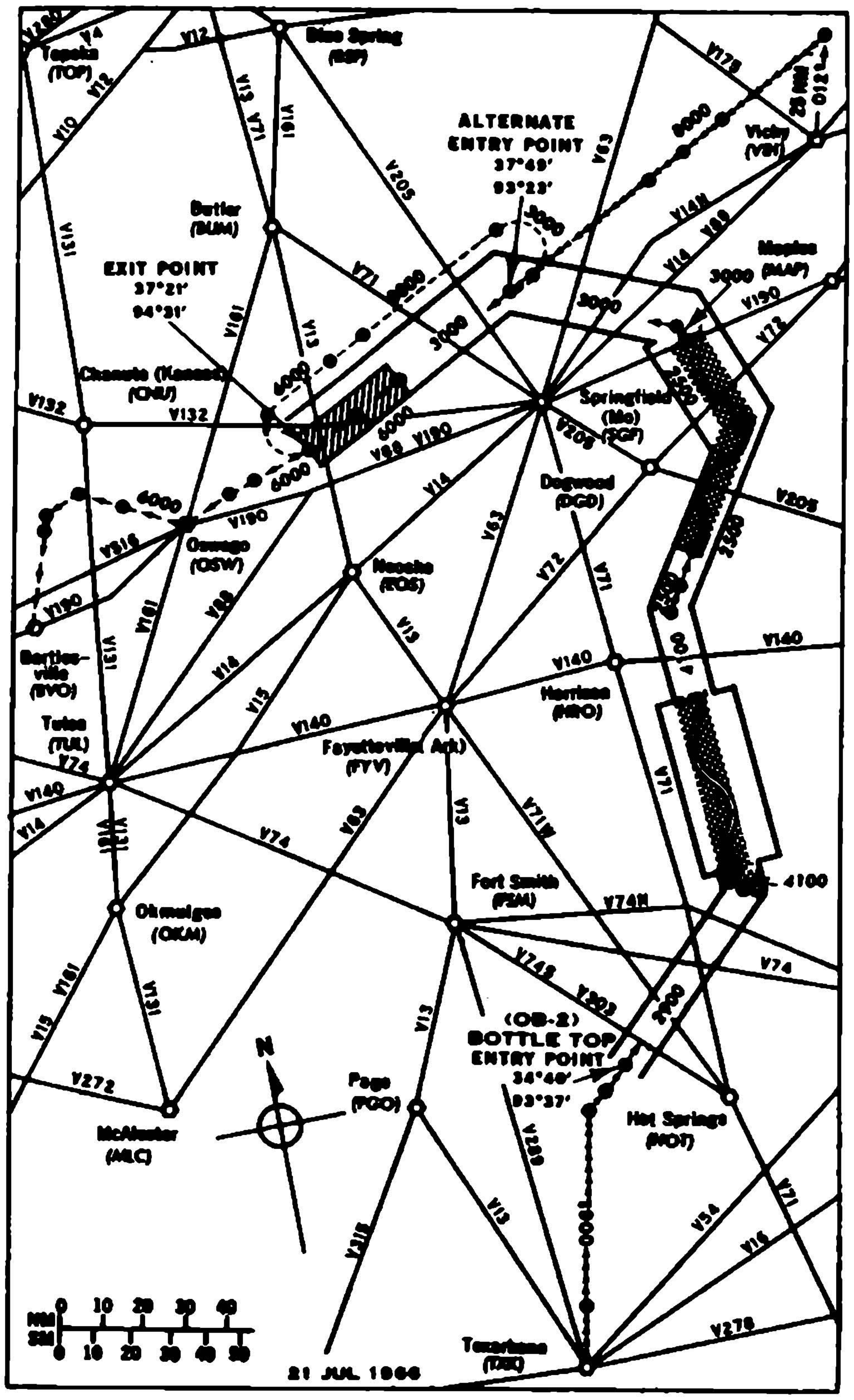
Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°51'W, at 4100' MSL, then 4100' MSL direct to 36°28'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°28'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°31'W, maintain 6000' MSL, turn right to 37°32'N, 94°41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30''N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 92°34'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ARTCC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°18'N, 92°22'W; then descend so as to cross 38°08'N, 92°34''W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.


Topeka (TOP)
Blue Spring (BSP)
ALTERNATE ENTRY POINT 37°49' 93°23'
Vichy (VIH)
25 NM 012°
Butler (BUM)
EXIT POINT 37°21' 94°31'
Maples (MAP)
Chanute (Kansas) (CNU)
Springfield (Mo) (SGF)
Dogwood (DGD)
Oswego (OSW)
Neosho (EOS)
Bartlesville (BVO)
Harrison (HRO)
Tulsa (TUL)
Fayetteville (Ark) (FYV)
Fort Smith (FSM)
Okmulgee (OKM)
(OB-2) BOTTLE TOP ENTRY POINT 34°40' 93°37'
Page (PGO)
McAlester (MLC)
Hot Springs (HOT)
Texarkana (TXK)
N
NM 0 10 20 30 40
SM 0 10 20 30 40 50
21 JUL 1966
3000
6000
4100
2500
2800
V14
V13
V71
V161
V131
V140
V190
V74
V63
V72
V205
V12
V10
V4
V132
V88
V15
V516
V272
V54
V16
V278
V289
V315
V71W
V74N
V748
V302
V175
V14N
V89

Route Width—The IFR route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°06'N, 92°23'W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W. The VFR route width from 35°21'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°06'N, 92°23'W is reduced to 2 NM on the east side of centerline.

Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

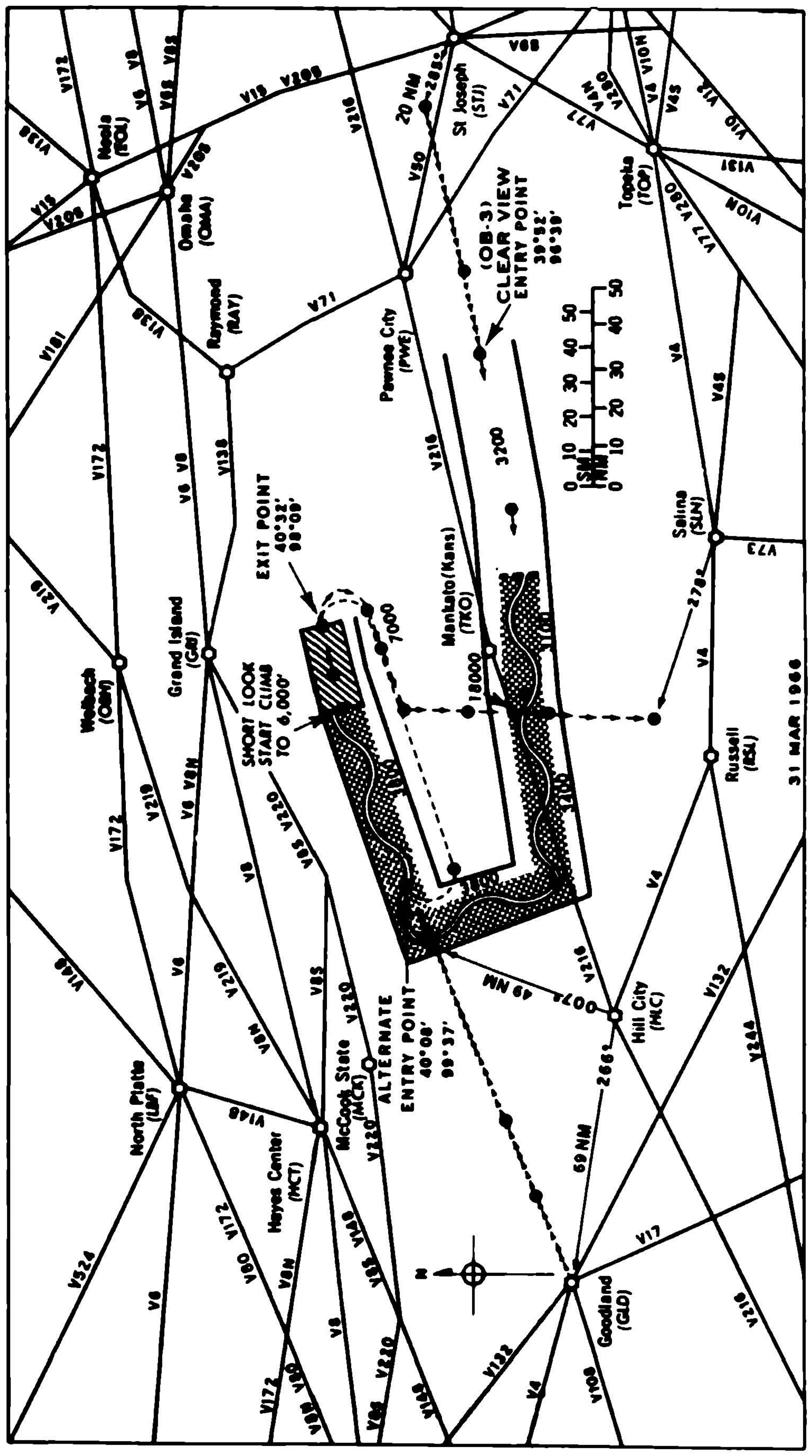
KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB-3

Revised Effective March 27, 1966

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL direct 40°03'N, 99°50'W maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (4 NM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).



St Joseph (STJ)
Topeka (TOP)
Neola (RQL)
Omaha (OMA)
Raymond (RAY)
Pawnee City (PWE)
20 NM
288°
(OB-3) CLEAR VIEW ENTRY POINT 39°52' 96°39'
0 10 20 30 40 50 SM
0 10 20 30 40 50 NM
3200
Salina (SLN)
278°
EXIT POINT 40°32' 98°09'
7000
Mankato (Kans) (TKO)
18000
Grand Island (GRI)
Wolbach (OBH)
SHORT LOOK START CLIMB TO 6,000'
Russell (RSL)
31 MAR 1966
49 NM
007°
Hill City (HLC)
266°
69 NM
ALTERNATE ENTRY POINT 40°08' 99°37'
McCook State (MCK)
North Platte (LBF)
Hayes Center (HCT)
Goodland (GLD)
N
V172
V6
V8
V4
V71
V216
V17
V132
V244
V220
V148
V324

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.

Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

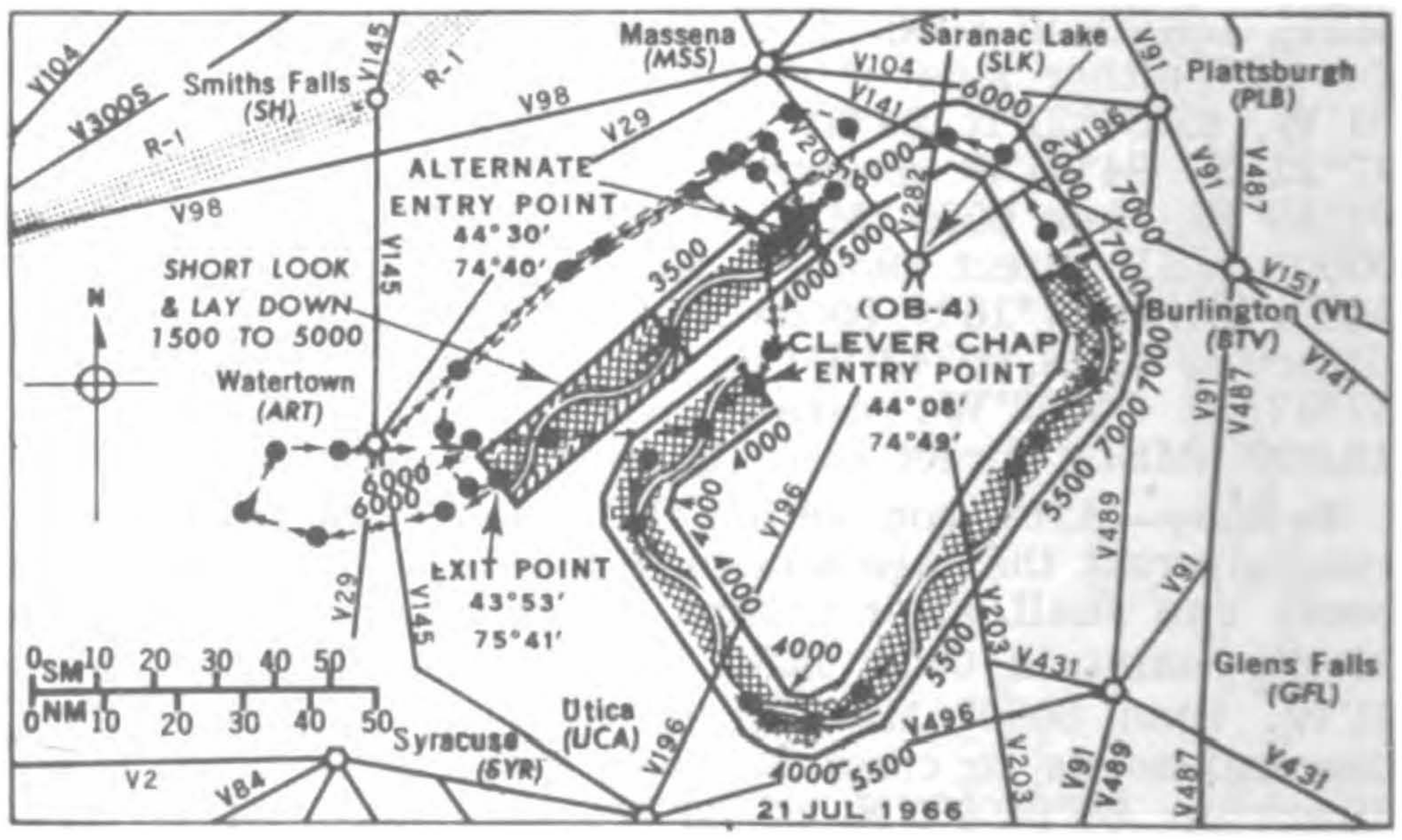
Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

CLEVER CHAP OB-4

Revised Effective February 27, 1966

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below: cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13' N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17' N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W: climb to cross 43°59'N, 73°51'W at 7,000 feet MSL:



Massena (MSS)
Saranac Lake (SLK)
Plattsburgh (PLB)
Smiths Falls (SH)
R-1
ALTERNATE ENTRY POINT 44°30' 74°40'
SHORT LOOK & LAY DOWN 1500 TO 5000
N
Watertown (ART)
(OB-4) CLEVER CHAP ENTRY POINT 44°08' 74°49'
Burlington (VT) (BTV)
EXIT POINT 43°53' 75°41'
0 SM 10 20 30 40 50
0 NM 10 20 30 40 50
Syracuse (SYR)
Utica (UCA)
Glens Falls (GFL)
21 JUL 1966
3500
4000
5000
5500
6000
7000
V98
V29
V145
V104
V141
V196
V203
V91
V487
V489
V431
V496
V2
V84

maintain 7,000 feet MSL direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL; cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.

Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43'N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at FL 180; cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48'N, 75°12'W to 44°16'N, 73°39'W 2 NM either side of center line.

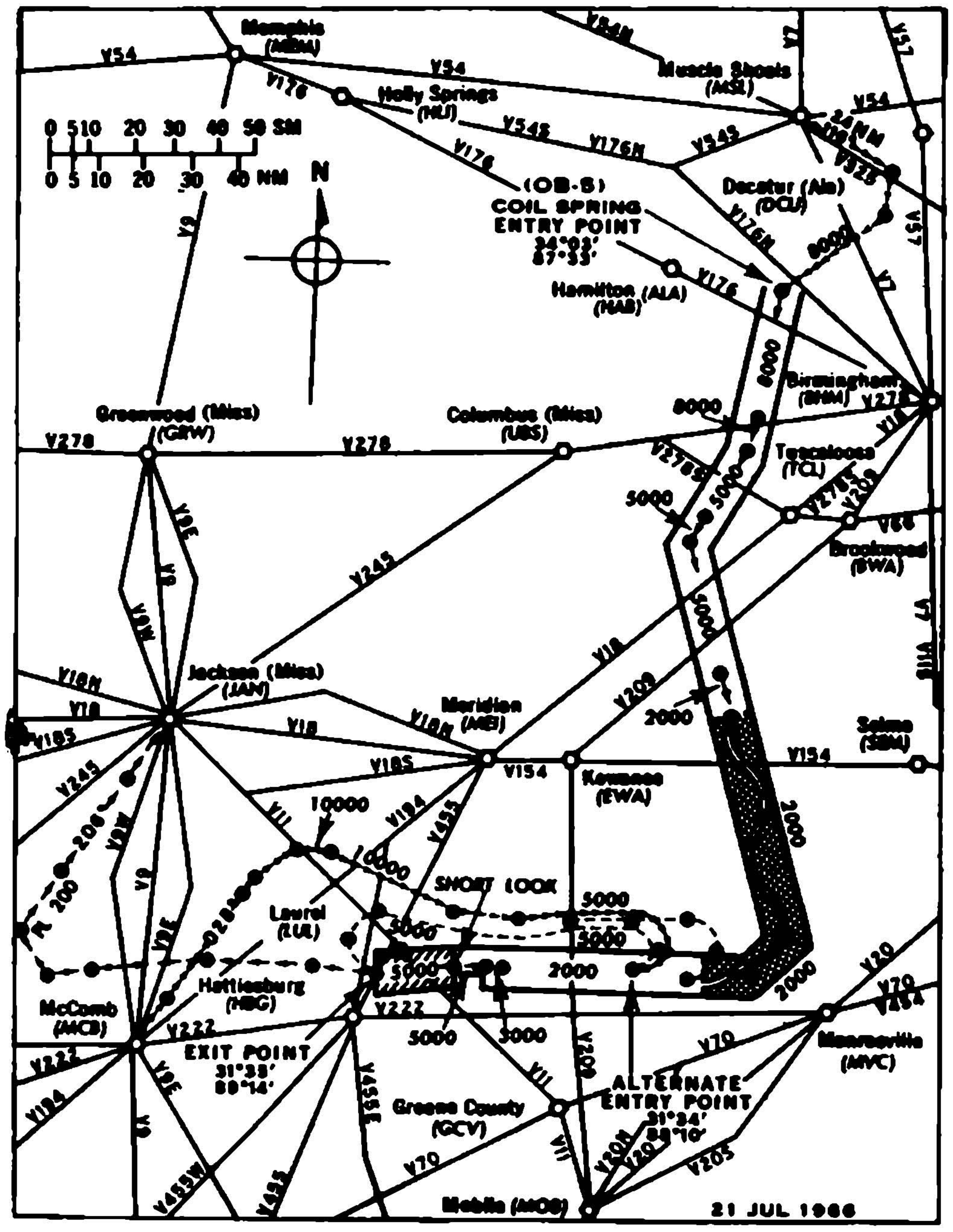
Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB-5

Revised Effective January 6, 1966

Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000' MSL; turn right, descend to cross 34°19'N, 87°06'W at 8000' MSL, maintain 8000' MSL direct to the route entry point at 34°03'N, 87°33'W, direct 33°35'N, 87°38'W, direct 33°28'N, 87°42'W; descend direct to cross 33°15'N, 87°52'W at 5000' MSL, maintain 5000' MSL direct 33°10'N, 87°56'W, direct 32°40'N, 87°48'W; descend to cross 32°31'N, 87°45'W at 2000' MSL, maintain 2000' MSL direct 31°41'N, 87°31'W, turn right to 31°33'N, 87°40'W, maintain 2000' MSL direct 31°36'N, 88°42'W; climb direct to cross 31°36'N, 88°46'W at 3000' MSL, direct to cross 31°36'N, 88°54'30"W at 5000' MSL. In addition to the above, aircraft may climb to 3000' MSL after 31°33'N, 87°40'W and maintain 3000' MSL to 31°36'N, 88°54'30" during the hours 0600Z-1200Z.


Memphis (MEM)
Muscle Shoals (MSL)
Holly Springs (HUJ)
Decatur (Ala) (DCU)
(OB-5) COIL SPRING ENTRY POINT 34°03' 87°33'
Hamilton (ALA) (HAB)
Birmingham (BHM)
Greenwood (Miss) (GRW)
Columbus (Miss) (UBS)
Tuscaloosa (TCL)
Brookwood (BWA)
Jackson (Miss) (JAN)
Meridian (MEI)
Selma (SEM)
Kewanee (EWA)
Laurel (LUL)
Hattiesburg (HBG)
McComb (MCB)
Greene County (GCV)
Monroeville (MVC)
Mobile (MOB)
EXIT POINT 31°35' 89°14'
ALTERNATE ENTRY POINT 31°34' 88°10'
SHORT LOOK
0 5 10 20 30 40 50 SM
0 5 10 20 30 40 NM
N
V54
V176
V54S
V176N
V7
V57
V278
V278S
V245
V9
V9E
V9W
V18
V18N
V18S
V154
V11
V194
V455
V455E
V455W
V222
V209
V20
V70
V205
V66
V115
8000
5000
2000
3000
10000
206
200
028
21 JUL 1966

Short Look—After passing 31°36'N, 88°54'30"W aircraft shall operate through the bomb run corridor at 5000' MSL. In addition, aircraft may operate through the bomb run corridor at 3000' MSL during the hours 0600Z-1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36'N, 88°54'30"W to 31°35'N, 89°14' W.) After exiting the route at 31°35'N, 89°14'W, aircraft shall cross 31°36'N, 89°30'W at 5000' MSL; start climb direct to cross 31°37'N, 89°56'W at 14,000' MSL (reporting point), maintain 14,000' MSL direct 31°33'N, 90°25'W; start climb direct 31°32'N, 90°36'W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42'N, 90°44'W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55'N, 90°35'W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35'N, 89°14'W, turn right, cross 31°42'N, 89°22'W at 5000' MSL, maintain 5000' MSL, turn right to 31°49'N, 89°14'W, direct 31°48'N, 88°27'W; direct 31°48'N, 88°10'W;

turn right, cross 31°40'N, 88°03'W at 3000' MSL; continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route. Aircraft may proceed at 5000' MSL from 31°48'N, 88°27'W; direct 31°48'N, 87°57'W; turn right descend to cross 31°41'N, 87°49'W at 3000' MSL; continue turn to cross 31°34'N, 87°57'W at 2000' MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 32°31'N, 87°45'W to 31°33'N, 87°52'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18'15"N, 90°15'29"W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000' MSL; cross 45 NM fix at 14,000' MSL; turn right, cross 32°01'N, 89°35'W at 10,000' MSL, maintain 10,000' MSL, turn right, 32°01'N, 89°27'W, direct 31°49'N, 88°55'W; descend direct, cross 31°48'N, 88°39'W at 6000' MSL; direct, cross 31°48'N, 88°27'W at 5000' MSL, maintain 5000' MSL direct 31°48'N, 88°10'W; turn right cross 31°40'N, 88°03'W at 3000' MSL continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36'N, 88°46'W to 31°36'N, 88°54'30"W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

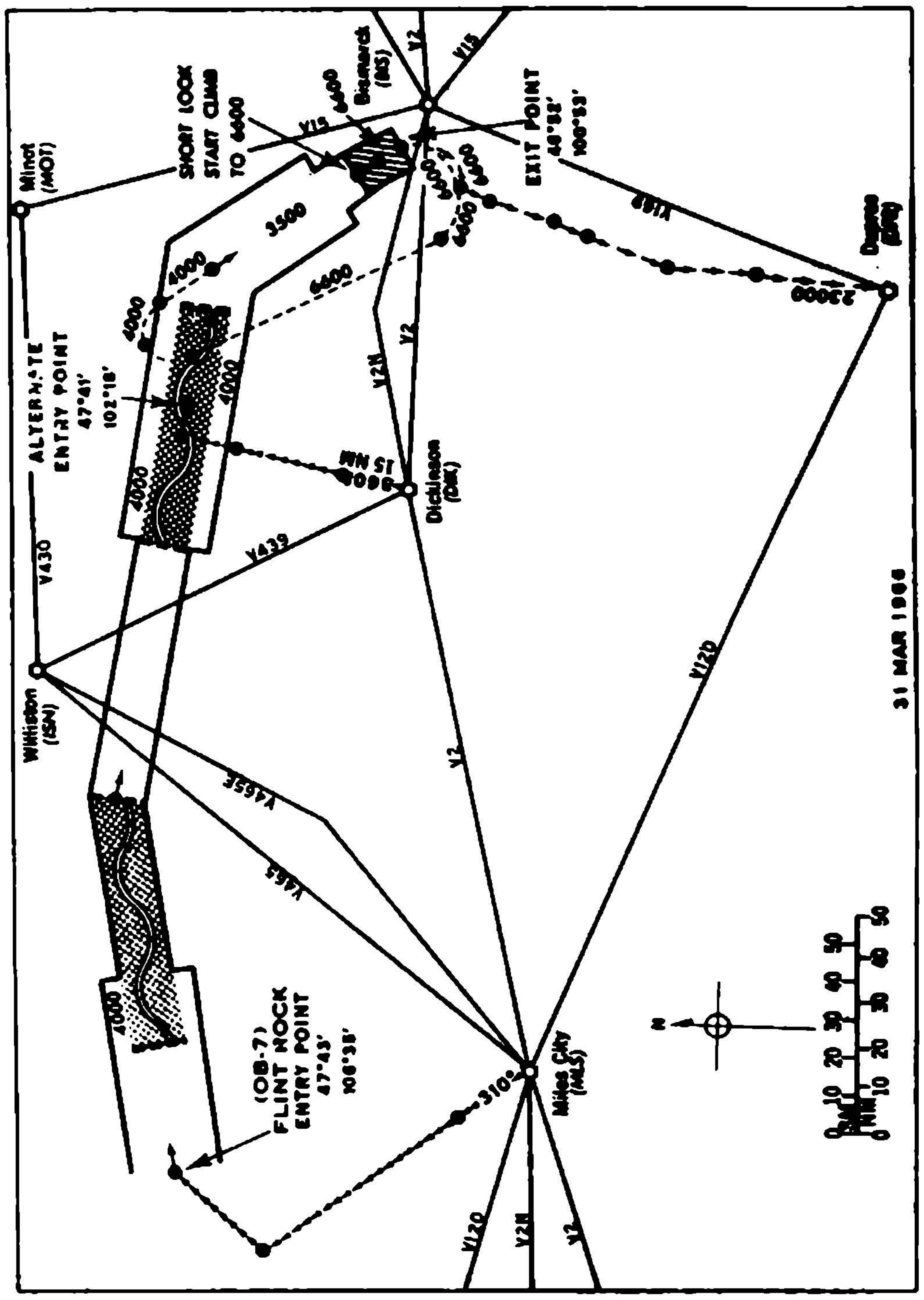
FLINT ROCK OB-7

Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40'N, 106°14'W; then descend to cross 47°24'N, 107°00'W at or above 6000' MSL; then continue descent so as to cross the route entry point, 47°43'N, 106°35'W, at 4000' MSL; then at 4000' MSL direct 47°57'N, 104°30'W; then at 4000' MSL direct 47°35'N, 101°31'W; then descend to 3500' MSL direct 47°02'N, 101°02'W.

Short Look—After passing 47°02'N, 101°02'W aircraft shall climb so as to cross 46°56'N, 100°56'W at 6600' MSL; then at 6600' MSL direct to the exit point 46°52'N, 100°53'W (bomb run corridor 4 NM either side of centerline from 47°02'N, 101°02'W to the exit point 46°52'N, 100°53'W); then maintaining 6600' MSL turn right direct 46°39'N, 101°07'W; then start climb to FL 230 direct to 45°53'N, 101°35'W; direct to Dupree VORTAC, climbing so as to cross 46°30'N, 101°12'30"W at or above 8,000' MSL; crossing 46°19'N, 101°19'W at or above 11,000' MSL; crossing 46°13'N, 101°23'W at or below FL 190; crossing 45°53'N, 101°35'W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52'N, 100°53'W maintain 6600' MSL direct 46°39'N, 101°07'W; then at 6600' MSL make a right turn direct to 46°43'N, 101°24'W; then at 6600' MSL direct 47°40'N, 102°00'W the descending so as to cross 47°50'N, 101°56'W at 4000' MSL; then continue turn direct 47°47'N, 101°42'W; then direct at 4000' MSL to 47°35'N, 101°31'W, thence via the published route.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 47°48'N, 105°53'W to 47°57'N, 104°30'W and from 47°47'N, 103°03'W to 47°37'N, 101°45'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000' MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000' MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31'N, 102°32'W at 8,000' MSL; then descend direct so as to cross 47°42'30"N, 102°27'W at 6,000' MSL; then a descending right turn so as to cross 47°41'N, 102°18'W at 4000' MSL, thence via the published route.

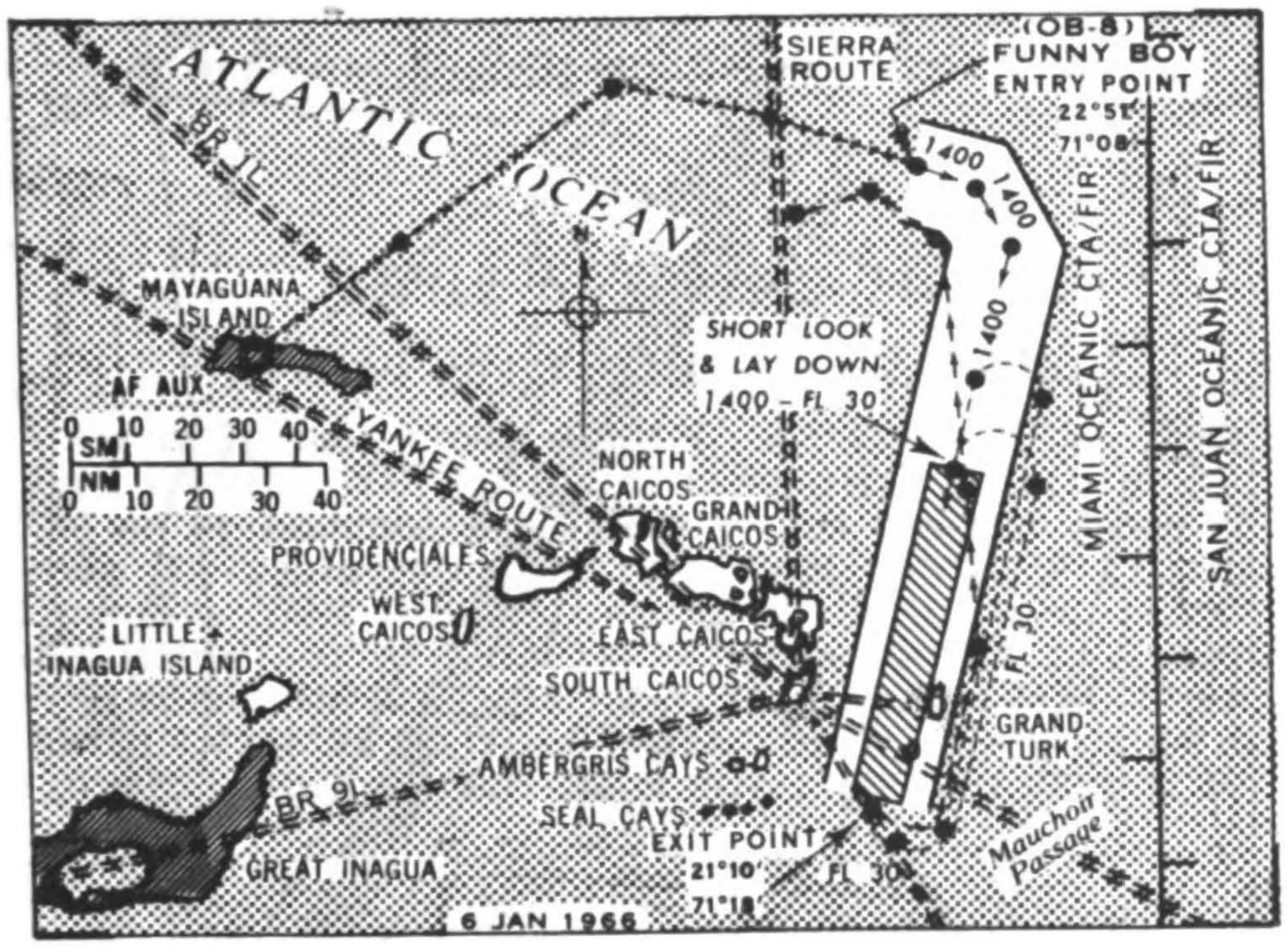
Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50'N, 105°30'W to 47°47'N, 103°03'W and from 47°07'N, 101°06'W to 46°52'N, 100°53'W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY OB-8

Revised Effective February 6, 1966

Aircraft shall cross 22°23'N, 73°02'W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41'N, 72°35'W (reporting point); start descent, cross 23°05'N, 72°00'W at FL 150; right turn, cross 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 71°08'W at 1400' MSL (the route entry point); maintain 1400' MSL direct 22°48'N, 70°58'W; turn right to 22°39'N, 70°53'W; direct 22°04'N, 71°03'W.


ATLANTIC OCEAN
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°51' 71°08'
1400
MAYAGUANA ISLAND
AF AUX
SM NM 0 10 20 30 40
SHORT LOOK & LAY DOWN 1400 - FL 30
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
LITTLE INAGUA ISLAND
EAST CAICOS
SOUTH CAICOS
YANKEE ROUTE
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR
FL 30
GRAND TURK
AMBERGRIS CAYS
SEAL CAYS
EXIT POINT 21°10' 71°18'
Mouchoir Passage
BR 91
GREAT INAGUA
6 JAN 1966

Short Look and Lay Down—After passing 22°04'N, 71°03'W, aircraft shall maintain between 1400' and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04'N, 71°03'W to 21°10'N, 71°18'W). After exiting the route at 21°10'N, 71°18'W, aircraft shall turn left, cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W, direct 21°35'N, 71°00'W; start climb, cross 22°00'N, 71°02'W at FL 110 or above cross 22°40'N, 71°06'W at FL 250 or above; left turn to 22°48'N, 71°16'W; cross 22°45'N, 71°30'W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10'N, 71°18'W, turn left cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W; direct 22°01'N, 70°53'W; turn left descend to cross 22°04'N, 71°03'W at 1400'; thence via the published route. Aircraft may proceed at FL 30 from 21°06'N, 71°08'W; direct 22°14'N, 70°49'W; turn left descend to cross 22°17'N, 70°59'W at 1400'; thence via the published route.

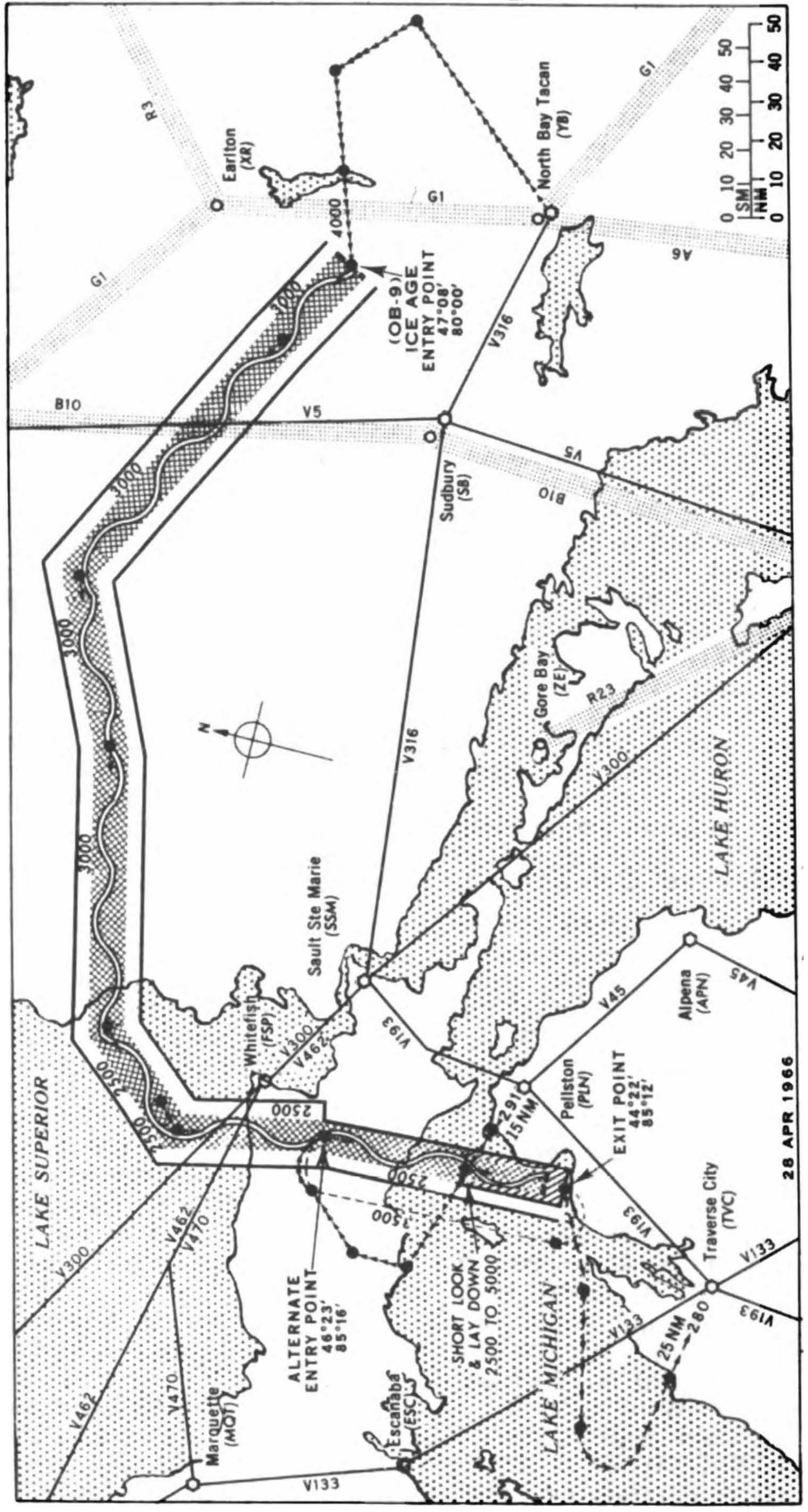
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB-9

Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000' MSL direct 47°04'N, 78°25'W, descend to 10,000' MSL direct to 47°22'N, 78°49'W, descend to 4000' MSL direct to 47°15'N, 79°25'W, maintain 4000' MSL direct to low level entry point at 47°08'N, 80°00'W (aircraft shall maintain an altitude below 3500' AGL on the low level route while in Canadian airspace), descend so as to cross 47°22'N, 80°35'W at 3000' MSL, then maintain 3000' MSL direct 47°58'N, 82°15'W, then at 3000' MSL direct to 47°40'N, 83°16'W, then at 3000' MSL direct 47°23'N, 85°00'W, then descend direct 47°06'N, 85°22'W at 2500' MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06'N, 85°22'W at 2500' MSL, direct 47°00'N, 85°30'W at 2500' MSL, direct 46°23'N, 85°16'W at 2500' MSL, direct 45°48'N, 85°15'W at 2500' MSL.


R3
G1
Earlton (XR)
North Bay Tacan (YB)
SM NM 0 10 20 30 40 50
4000
3000
(OB-9) ICE AGE ENTRY POINT 47°08' 80°00'
V316
B10
V5
Sudbury (SB)
Gore Bay (ZE)
R23
V300
LAKE HURON
Sault Ste Marie (SSM)
Whitefish (FSP)
LAKE SUPERIOR
2500
V462
V470
Pellston (PLN)
EXIT POINT 45°22' 85°12'
Alpena (APN)
V45
V193
Traverse City (TVC)
V133
ALTERNATE ENTRY POINT 46°23' 85°16'
SHORT LOOK & LAY DOWN 2500 TO 5000
Escanaba (ESC)
Marquette (MQT)
LAKE MICHIGAN
28 APR 1966

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept

280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W turn right climbing so as to cross 45°21'N, 85°32'W at 3,500' MSL, then at 3,500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°08'N, 80°00'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

IDAHO/NEVADA

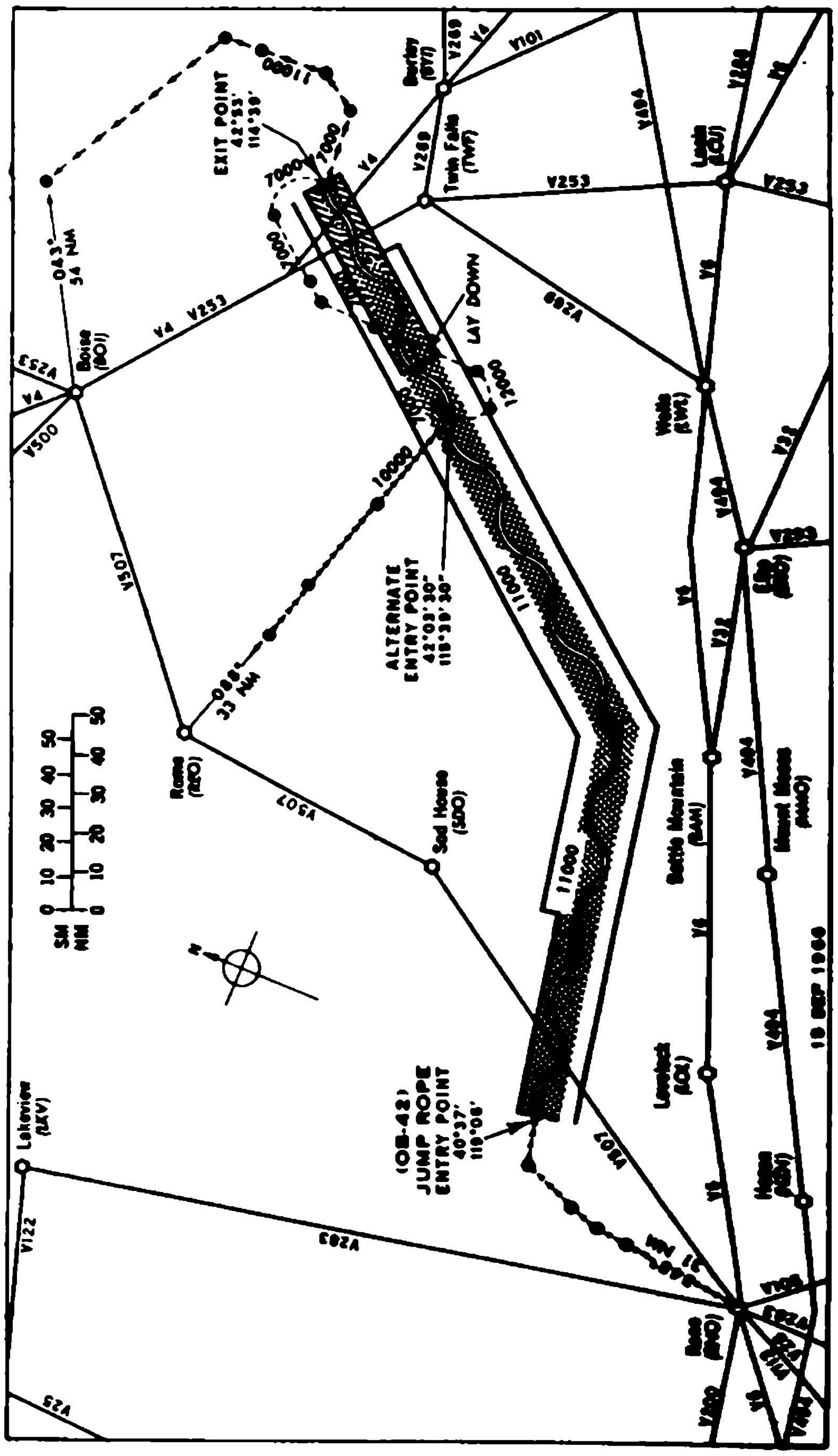
•JUMP ROPE OB-42

Effective October 10, 1966 thru March 25, 1967

Aircraft shall cross the Reno, Nevada, VORTAC at FL 230 or as assigned by ARTCC; then at FL 230, or assigned altitude, proceed via the 348° radial of the Reno, Nevada, VORTAC until 31 nautical miles north (40°03'N, 119°35'W); then descend direct to 40°12'N, 119°34'W; then continue descent direct so as to cross 40°20'N, 119°30'W at FL180; then continue descent direct so as to cross 40°34'N, 119°23'W at or below 17,000' MSL; then descend direct so as to cross the low level entry point at 40°37'N, 119°06'W at 11,000' MSL; then at 11,000' MSL direct to 40°56'N, 116°59'W; then at 11,000' MSL direct to 42°03'30"N, 115°39'30"W; then descend so as to cross the entry to the bomb run corridor at 42°17'N, 115°23'W at 7,000' MSL.

Lay Down—After passing 42°17'N, 115°23'W, aircraft shall maintain 7,000' MSL through the bomb run corridor (4 nautical miles either side of centerline from 42°17'N, 115°23'W to 42°53'N, 114°39'W). After exiting the route (contact Salt Lake Center as soon as practicable on P125.6 S317.5) at 42°53'N, 114°39'W, aircraft shall turn right maintaining 7,000' MSL direct to 42°54'N, 114°10'W then turn left climbing so as to cross 43°03'N, 114°01'W at 11,000' MSL; then at 11,000' MSL direct to 43°20'N, 114°01'W; then climb direct to 43°30'N, 114°01'W; then turn left climbing so as to cross the Boise, Iadho, VORTAC 043° radial 54 nautical mile DME fix at FL 230.

Re-Entry—After completing the initial bomb run, aircraft schedule to execute an additional bomb run shall, after passing 42°53'N, 114°39'W, turn left maintaining 7,000' MSL to 43°02'30"N, 114°53'W; then at 7,000' MSL direct to 42°48'N, 115°11'W; then climb direct so as to cross 42°44'N, 115°16'W at 8,000' MSL; then turn left and climb to 42°30'N, 115°18'30"W; then continue climb direct so as to cross 42°02'N, 115°19'W at 12,000' MSL; then at 12,000' MSL turn right to 41°55'N, 115°30'W; then continue turn and descend so as to cross 42°07'N, 115°35'W at 7,000' MSL; thence via the published route.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 40°37'N, 119°06'W to 42°53'N, 114°39'W. VFR operations shall not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Rome, Oregon, VORTAC at FL 230 or as assigned by ARTCC, then at FL 230 or assigned FL, proceed via the 088° radial until 33 nautical miles east (42°25'N, 117°10'W); then descend direct so as to cross 42°20′N, 116°48′W at FL 200; then descend direct so as to cross 42°12′N, 116°14′30″W at 10,000′ MSL then at 10,000′ MSL direct to 42°03′30″N, 115°39′30″W; thence via the published route.

Route Width—The VFR route width is reduced to 2 nautical miles on the north side of centerline from 40°47′N, 118°00′W to 40°51′N, 117°32′W and from 41°21′N, 116°30′W to 41°37′N, 116°11′W. The VFR route width is reduced to 2 nautical miles on both sides of centerline from 42°37′N, 114°58′W to 42°53′N, 114°39′W. The IFR route width is reduced to 4 nautical miles on the north side of centerline from 40°37′N, 119°06′W to 40°47′N, 118°00′W and to 4 nautical miles on the southeast side of centerline from 42°37′N, 114°58′W to 42°53′N, 114°39′W.

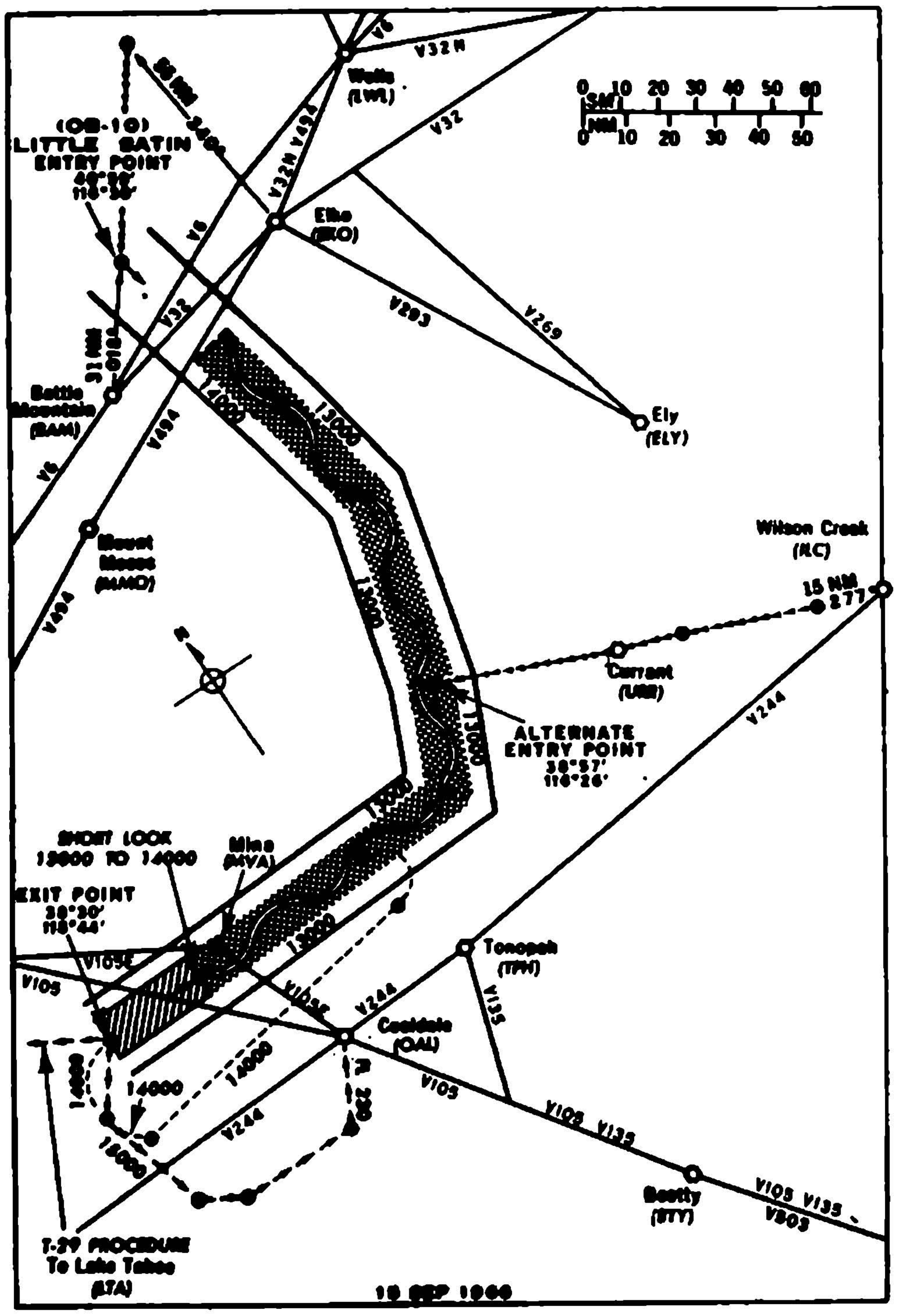
Hours of Operation—24 hours daily, 7 days a week.

NEVADA

LITTLE SATIN OB–10

Revised Effective January 2, 1966

Aircraft shall cross 41°40′N, 115°49′W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59′N, 116°30′W (Battle Mountain VOR 018°/31) at 14,000′ MSL, then 14,000′ MSL direct 40°10′N, 116°17′W; then descend to 13,000′ MSL direct 39°42′N, 116°10′W, then 13,000′ MSL direct 38°57′N, 116°26′W, then 13,000′ MSL direct 38°34′N, 116°40′W, then 13,000′ MSL direct 38°31′N, 118°12′W.


V6
V32N
Wells (LWL)
0 10 20 30 40 50 60
SM
NM
0 10 20 30 40 50
V32
(OB-10)
LITTLE SATIN
ENTRY POINT
40°59′
116°30′
V32N V494
Elko (EKO)
V293
V269
V6
V32
31 NM 018°
Battle Mountain (BAM)
14000
13000
Ely (ELY)
V494
V6
Mount Moses (MMO)
Wilson Creek (ILC)
15 NM
277°
N
Currant (URE)
ALTERNATE
ENTRY POINT
38°57′
116°26′
V244
13000
SHORT LOOK
13000 TO 14000
Mina (MVA)
EXIT POINT
38°30′
118°44′
V105E
V105
Tonopah (TPH)
V105E
V244
Coaldale (OAL)
V135
14000
14000
V105
230
V244
15000
V105 V135
Beatty (BTY)
V105 V135
V803
T-29 PROCEDURE
To Lake Tahoe
(LTA)
10 SEP 1966

Short Look—After passing 38°31′N, 118°12′W aircraft shall operate between a maximum altitude of 14,000′ MSL and a minimum of 13,000′ MSL thru the bomb run corridor (4 NM either side of centerline from 38°31′N, 118°12′ W to 38°30′ N, 118°44′ W). After exiting the route at 38°30′N, 118°44′W aircraft shall start climb to cross 38°15′N, 118°57′W at 15,000′ MSL; then maintain 15,000′ MSL direct 37°48′N, 118°48′W; then climb so as to cross 37°42′N, 118°36′W at or above 17,000′ MSL; then climb direct to cross 37°42′N, 118°00′W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30′N, 118°44′W, maintain 14,000′ MSL direct 38°15′N, 118°57′W, then 14,000′ direct 38°06′N, 118°50′W direct 38°19′N, 117°12′W; then descend direct to cross 38°33′N, 117°12′W at 13,000′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: from 40°30′N, 116°22′W to 38°31′N, 118°12′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21′N, 114°41′W); then descend direct to cross 38°34′N, 115°18′W at or below 15,000′ MSL; then descend direct via the Currant, Nev. VOR to cross 38°57′N, 116°26′W at 13,000′ MSL, thence via the published route.

T–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15′N, 114°23′W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30′N, 118°44′W exit point of the bomb run corridor; then climb to 14,000′ MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11′ N, 120°16′W).

Hours of Operation—24 hours daily, 7 days a week.

NORTH CAROLINA/SOUTH CAROLINA/VIRGINIA

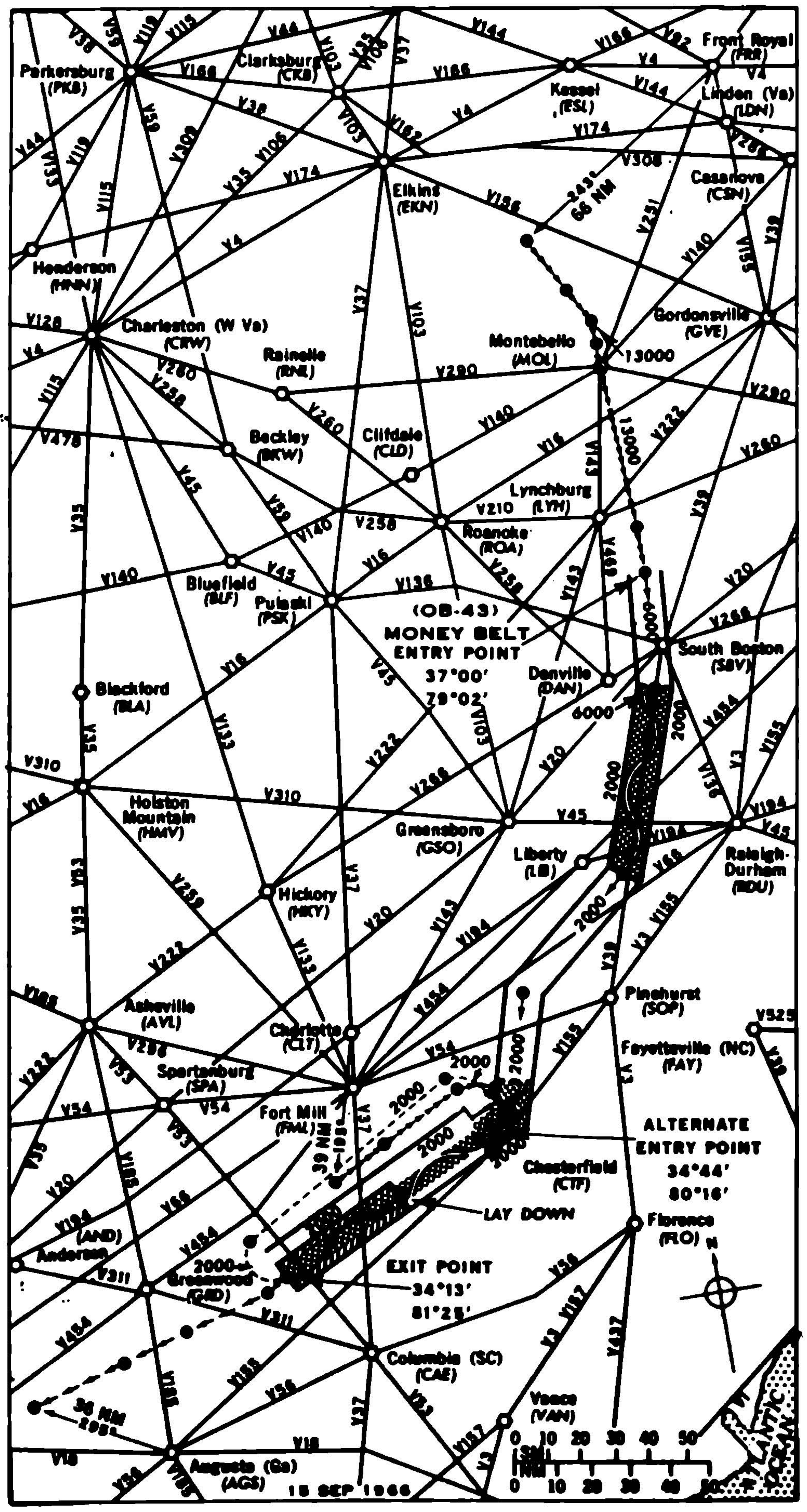
• MONEY BELT OB–43

Effective October 3, 1966 thru March 25, 1967

Aircraft shall cross the Front Royal, Va. VORTAC 243/66 DME Fix (38°29′N, 79°22′W) at FL 240, or as assigned by ARTCC, then descend direct so as to cross 38°15′N, 79°12′W at or below FL 200, then descend direct so as to cross 38°06′N, 79°06′W at 13,000′ MSL; then at 13,000′ MSL direct to 38°00′N, 79°05′W; then at 13,000′ MSL direct to 37°12′N, 79°02′W; then descend direct so as to cross 37°00′N, 79°02′W at 6,000′ MSL (Low Level Entry Point); then at 6,000′ MSL direct to 36°30′N, 79°05′W; then at 6,000′ MSL direct to 36°25′N, 79°07′W; then descend direct so as to cross 36°17′N, 79°10′W at 2,000′ MSL; then at 2,000′ MSL direct to 35°44′N, 79°23′W; then at 2,000′ MSL direct to 35°17′N, 80°01′W; then at 2,000′ MSL direct to 34°46′N, 80°11′W; then at 2,000′ MSL direct to 34°30′N, 80°47′W.

Lay Down—After passing 34°30′N, 80°47′W, aircraft shall maintain 2,000′ MSL through the bomb run corridor (4 NM either side of centerline from 34°30′N, 80°47′W to 34°13′N, 81°25′W). After exiting the route at 34°13′ N, 81°25′W, aircraft shall climb so as to cross 34°10′N, 81°32′W at or above 5,000′ MSL (contact Atlanta Center on 322.4 mc); then climb direct so as to cross

34°03'N, 81°58'W at or above 12,000' MSL; then climb direct so as to cross 33°57'N, 82°18'W at 17,000' MSL; then climb direct so as to cross 33°48'N, 82°47'W at FL 240 (295/36 Augusta, Ga. VORTAC).


Parkersburg (PKB)
Clarksburg (CKB)
Front Royal (FRR)
Kessel (ESL)
Linden (Va) (LDN)
Casanova (CSN)
Elkins (EKN)
Henderson (HNN)
Charleston (W Va) (CRW)
Rainelle (RNL)
Montebello (MOL)
Gordonsville (GVE)
13000
Beckley (BKW)
Clifdale (CLD)
Lynchburg (LYH)
Roanoke (ROA)
Bluefield (BLF)
Pulaski (PSK)
(OB-43) MONEY BELT ENTRY POINT 37°00' 79°02'
Danville (DAN)
South Boston (SBV)
6000
Blackford (BLA)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
2000
Asheville (AVL)
Charlotte (CLT)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Spartanburg (SPA)
Fort Mill (FML)
ALTERNATE ENTRY POINT 34°44' 80°16'
Chesterfield (CTF)
LAY DOWN
Florence (FLO)
(AND) Anderson
Greenwood (GRD)
EXIT POINT 34°13' 81°25'
Columbia (SC) (CAE)
Vance (VAN)
Augusta (Ga) (AGS)
ATLANTIC OCEAN
SM
NM
0 10 20 30 40 50
15 SEP 1966

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 34°13'N, 81°25'W, maintain 2,000' MSL and turn right to 34°24'N, 81°35'W; then at 2,000' MSL direct to 34°54'N, 80°28'W; then at 2,000' MSL turn right to intercept the route at 34°42'N, 80°20' W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000'; visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 36°30'N, 79°05'W to 35°44'N, 79°23' W; and from 34°56'30"N, 80°07'30"W to 34°13'N, 81°25'W. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross 34°35'N, 81°07'W (195/39 DME Fix of the Charlotte, North Carolina, VORTAC) at FL 240, or as assigned by ARTCC; then descend direct so as to cross 34°44'N, 80°49'30"W at 16,000' MSL; then descend direct so as to cross 34°55'30"N, 80°25'W at 5,000' MSL; then turn right and descend so as to cross 34°54'N, 80°14'30"W at 2,000 MSL; then at 2,000' MSL continue turn to 34°44'N, 80°16'W; thence via the published route.

Route Width—The IFR route width is reduced to 4NM either side of centerline from 37°00'N, 79°02'W to 34°42'N, 80°20'W and to 4 NM on the south side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

The VFR Route width is reduced to 2NM on either side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

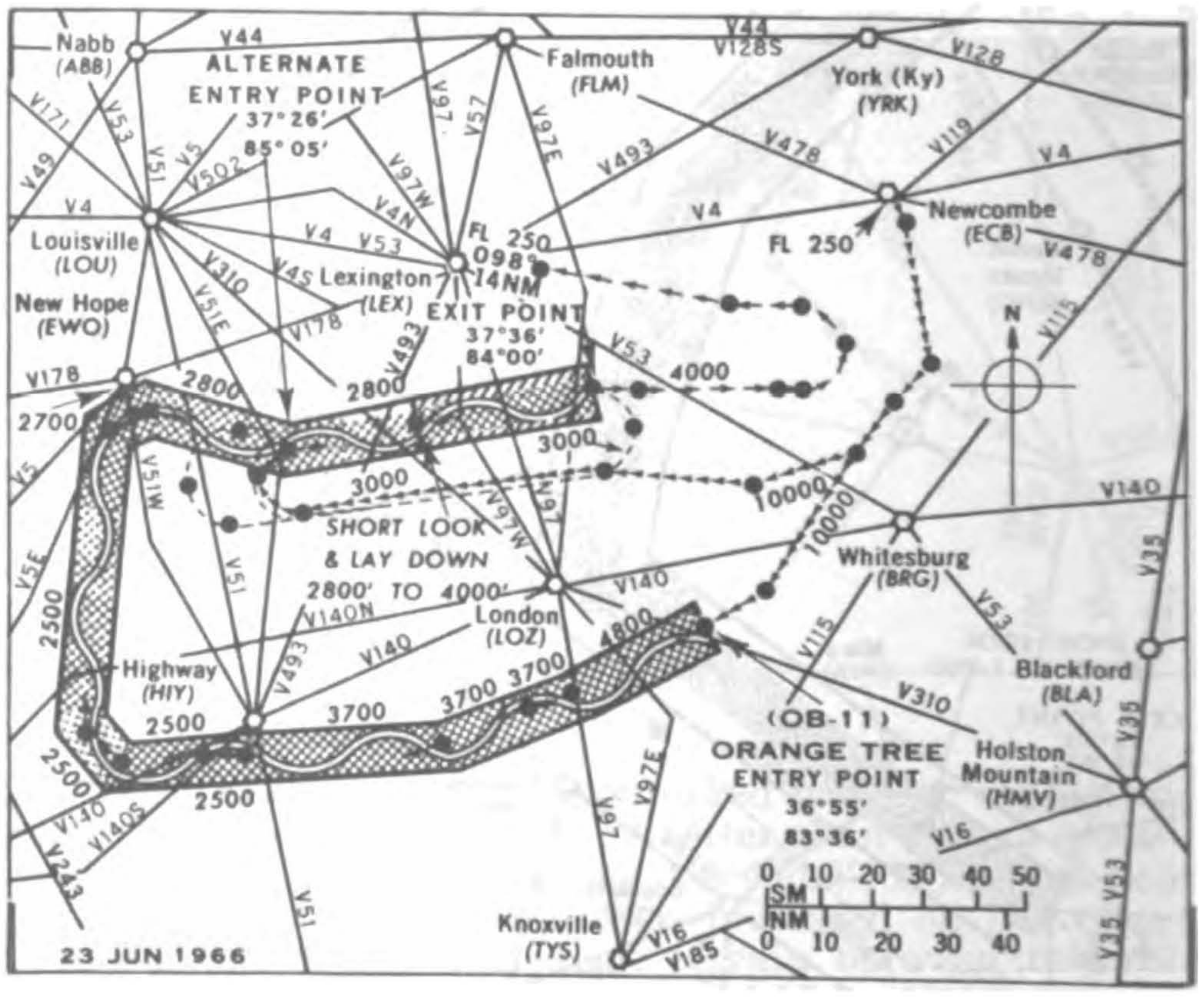
Hours of Operation—Primary Entry from 2300Z to 1300Z and from 1400Z to 2000Z 7 days per week. Alternate Entry from 2300Z to 1300Z 7 days per week.

KENTUCKY/TENNESSEE

ORANGE TREE OB-11

Revised Effective June 19, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05'N, 82°53'W; then start descending to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01'N, 83°24'W; then start descent so as to cross route entry at 36°55'N, 83°36'W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45' N, 84°01'W; then descend so as to cross 36°41'N, 84°14' W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°35'N, 84°32'W; direct 36°32'N, 85°15'W; descend so as to cross 36°32'N. 85°21'W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31'N, 85°40'W; then turn right to 36°36'N, 85°49'W; direct 37°28'N, 85°44'W; then


Nabb (ABB)
ALTERNATE ENTRY POINT 37°26' 85°05'
Falmouth (FLM)
York (Ky) (YRK)
Louisville (LOU)
New Hope (EWO)
Lexington (LEX)
FL 250
098°
14NM
EXIT POINT 37°36' 84°00'
Newcombe (ECB)
FL 250
4000
2700
2800
3000
SHORT LOOK & LAY DOWN 2800' TO 4000'
10000
Whitesburg (BRG)
London (LOZ)
4800
3700
Highway (HIY)
2500
Blackford (BLA)
(OB-11) ORANGE TREE ENTRY POINT 36°55' 83°36'
Holston Mountain (HMV)
Knoxville (TYS)
SM
NM
0 10 20 30 40 50
23 JUN 1966

turn right climb to cross 37°32'N, 85°35'W at 2800' MSL; then at 2800' MSL direct 37°26'N, 85°05'W; then at 2800 feet MSL direct 37°30'N, 84°38'W.

Short Look and Lay Down—After passing 37°30'N, 84°38' W aircraft shall maintain between 2800' and 4000'.

feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30'N, 84°38'W to 37°36'N, 84°00'W). After exiting the route at 37°36'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36'N, 83°20'W; then start climb direct 37°36'N, 83°15'W; cross 37°44'N, 83°-05'W at or below 9,000 feet MSL; continue climb direct 37°50'N, 83°15'W; then climbing direct so as to cross 37°51'N, 83°30'W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3 000 feet MSL continue right turn to 37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28'N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°-15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°58'W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3,00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800' MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

Hours of Operation—24 hours daily, 7 days per week.

MONTANA/SOUTH DAKOTA

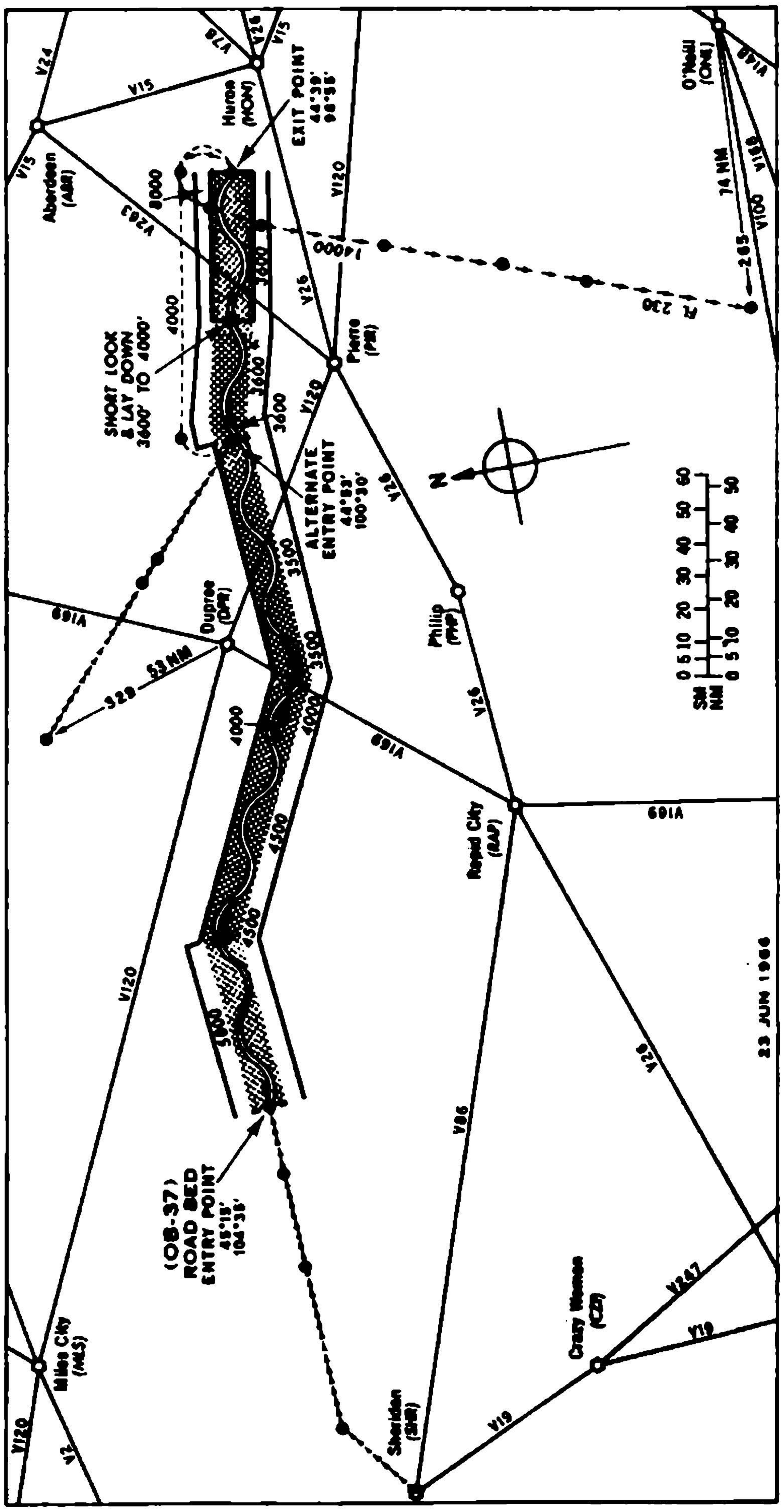
ROAD BED OB–37

Revised Effective June 19, 1966 through September 24, 1966

Aircraft shall cross the Sheridan, Wyoming VORTAC at FL 230 or as assigned by ARTCC; maintain FL 230 or assigned altitude direct to 45°08'N, 106°36'W; then start descent so as to cross 45°12'N, 105°35'W at or below 17,000' MSL then descend direct so as to cross 45°14'N, 105°00'W at or below 13,500 MSL continue descent so as to cross the route entry point at 45°15'N, 104°35'W at 5800' MSL; then at 5800' MSL direct to 45°20'N, 103°30'W; then descend so as to cross 45°18'N, 103°23'W at 4500' MSL; then at 4500' MSL direct 44°57'N, 102°20'W; then descend direct so as to cross 44°55'N, 102°14'W at 4000' MSL; then at 4000' MSL direct to 44°50'N, 102°00'W; then descend direct so as to cross 44°50'N, 101°55'W at 3500' MSL; then at 3500' MSL direct to 44°53'N, 100°30'W; then climb so as to cross 44°53'N, 100°23'W at 3600' MSL; then at 3600' MSL direct to the entry point of the bomb run corridor at 44°47'N, 99°49'W.

Short Look and Lay Down—After passing 44°47'N, 99°49'W, aircraft shall maintain between 3600' MSL and 4000' MSL through thhe bomb run corridor (4 NM either side of centerline from 44°47'N, 99°49'W to 44°39'N, 98°55'W). After exiting the route at 44°39'N, 98°55'W, aircraft shall turn left climbing so as to cross 44°52'N, 98°51'W at 8000' MSL; then at 8000' MSL continue left turn direct 44°47'N, 99°06'W; then start climb direct so as to cross 44°35'N, 99°17'W at 14,000' MSL; then at 14,000' MSL direct 44°05'N, 99°33'W; then start climb direct O'Neil, Nebraska VORTAC 265/74 (42°35'N, 100°-21'W) crossing 43°36'N, 99°49'W at or above FL 200; crossing 43°16'N, 100°00'W at FL 230; then maintain FL 230 to O'Neil 265/74.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb



run shall after passing 44°39'N, 98°55'W turn left and climb to or maintain 4000' MSL to 44°52'N, 98°51'W; then at 4000' MSL direct to 45°06'N, 100°26'W; then turn left and descend to 3500' MSL direct to 44°53'N, 100°30'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°15'N, 104°35'W to 44°39'N, 98°55'W.

Alternate Entry—Aircraft shall cross the Dupree, South Dakota VORTAC 329/53 (45°55'N, 102°06'W) at FL 200 or below as assigned by ARTCC; then descend direct so as to cross 45°23'N, 101°16'W at 16,000' MSL; then descend direct so as to cross 45°18'N, 101°08'W at or above 14,000' MSL; then descend direct so as to cross 44°53'N, 100°30'W at 3500' MSL; thence via the published route.

Route Width—The route width is reduced to 4 NM on the north side of centerline from 45°20'N, 103°30'W to 44°53'N, 100°30'W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

SEA HORSE OB–12

Revised Effective February 27, 1966

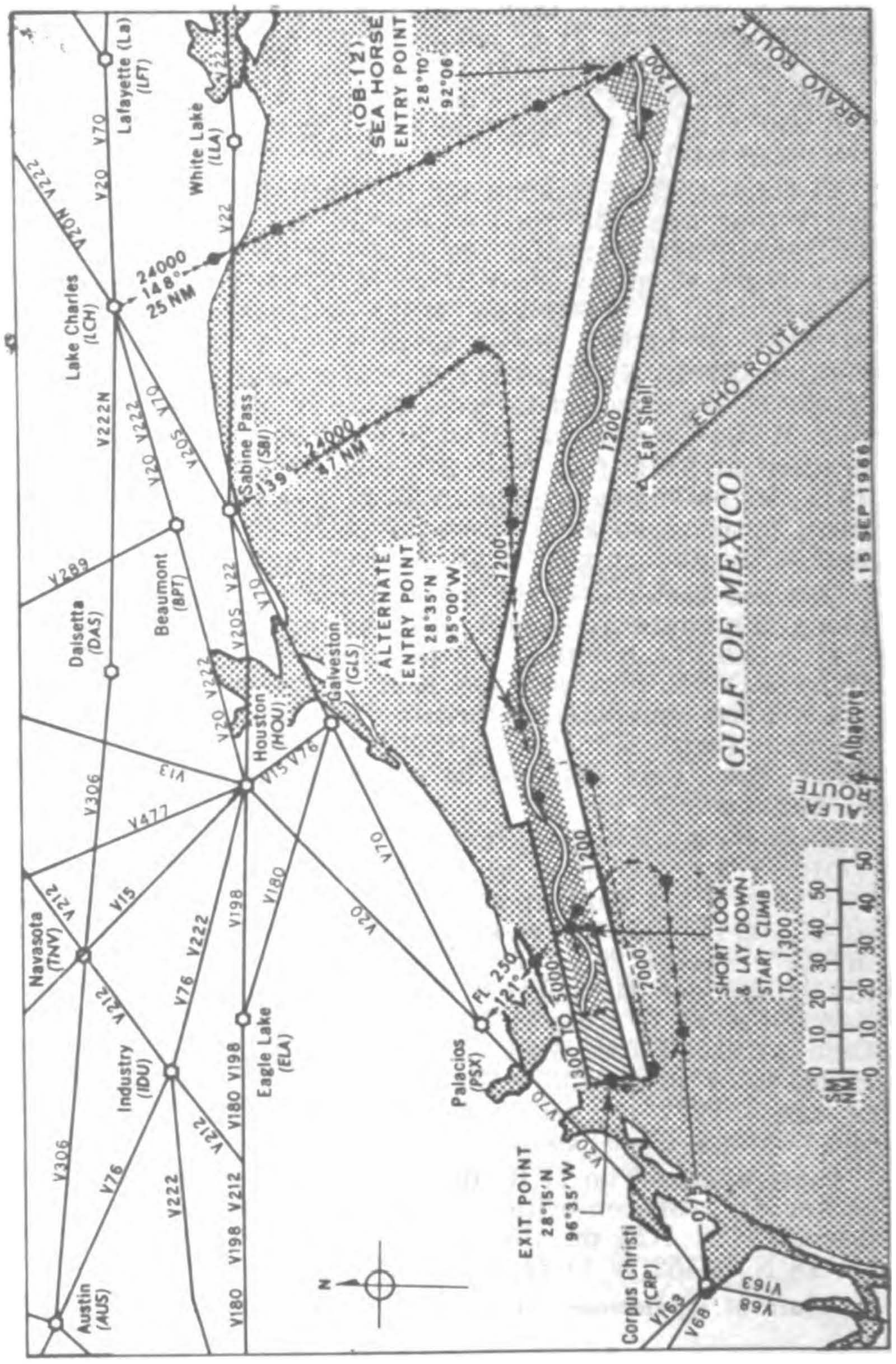
Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix; start descent, cross 29°31'N, 92°47'W at FL 190, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1200' MSL (low level entry point). Maintain 1200' MSL, turn right to 28°03'N, 92°16'W, direct 28°35'N, 95°00'W. direct 28°24'N, 95°53'W.

Short Look and Lay Down—After passing 28°24'N, 95°53' W climb to 1300' MSL and maintain between 1300' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 28°24'N, 95°53'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35' W, the route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°35'W turn left so as to cross 28°05'N, 96°32'W at 2,000' MSL; maintain 2000' MSL direct 28°18'N, 95°15'W, turn left descending so as to intercept the route at 28°31'N, 95°19' W at 1200' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the surface between the following points: From 28°10'N, 92°06'W to 28°19'N, 96°16'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the surface.

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°37'N, 94°06'W at 1200' MSL, direct 28°35'N, 95°00'W, thence via the published route.


Lafayette (La) (LFT)
White Lake (LLA)
(OB-12) SEA HORSE ENTRY POINT 28°10' 92°06'
BRAVO ROUTE
Lake Charles (LCH)
24000 148° 25 NM
Sabine Pass (SBI)
139° 24000 47 NM
ECHO ROUTE
Ear Shell
Beaumont (BPT)
Daisetta (DAS)
Houston (HOU)
Galveston (GLS)
ALTERNATE ENTRY POINT 28°35'N 95°00'W
GULF OF MEXICO
15 SEP 1966
Albacore
ALFA ROUTE
1200
5000
2000
1300
FL 250 121°
SHORT LOOK & LAY DOWN START CLIMB TO 1300
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
Navasota (TNV)
Industry (IDU)
Eagle Lake (ELA)
Palacios (PSX)
EXIT POINT 28°15'N 96°35'W
Corpus Christi (CRP)
075
Austin (AUS)
N
V20 V70 V222 V222N V205 V22 V289 V306 V13 V15 V76 V477 V212 V198 V180 V163 V68

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30'N, 95°24'W to 28°15'N, 96°35'W.

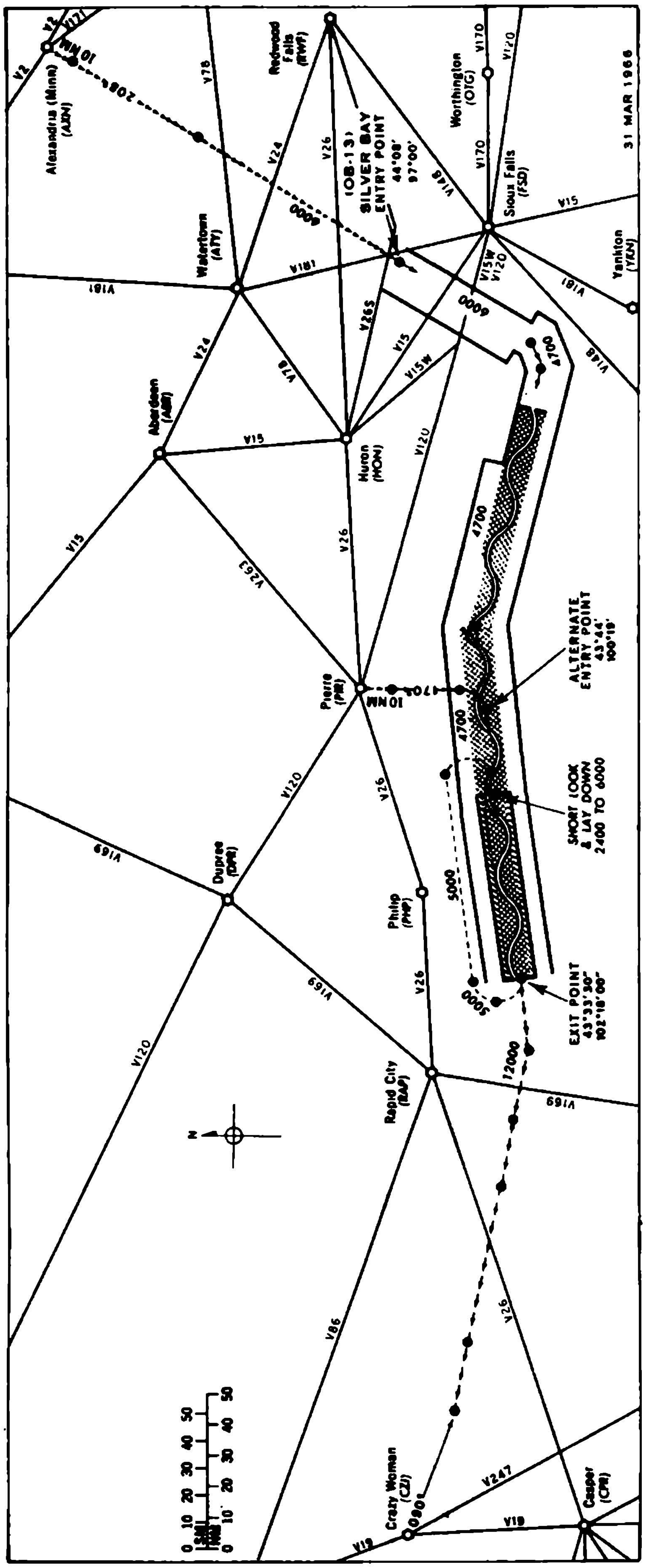
Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

SILVER BAY OB–13

Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10'N, 96°00'W at 6000' MSL; then at 6000' MSL direct 44°08'N, 97°00'W (low level entry point); then at 6000'MSL direct 43°27'N, 97°37'W; then turn right descending so as to cross 43°24'N, 97°48'W at 4700' MSL; then at 4700' MSL direct 43°47'N, 99°45'W; then at 4700' MSL direct to 43°42'N, 100°56'W.


Alexandria (Minn) (AXN)
Redwood Falls (RWF)
Worthington (OTG)
Sioux Falls (FSD)
Yankton (YKN)
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
Pierre (PIR)
Dupree (DPR)
Philip (PHP)
Rapid City (RAP)
Crazy Woman (CZI)
Casper (CPR)
(OB-13) SILVER BAY ENTRY POINT 44°08' 97°00'
ALTERNATE ENTRY POINT 43°44' 100°19'
SHORT LOOK & LAY DOWN 2400 TO 6000
EXIT POINT 43°33'30" 102°18'00"
31 MAR 1966
WN01
WN02
V2
V171
V78
V24
V26
V170
V148
V15
V181
V169
V120
V15W
V26S
V263
V86
V247
V19
4700
5000
6000
12000
0 10 20 30 40 50

Short Look and Lay Down—After passing 43°42'N, 100°56'W, aircraft shall maintain between 2400' MSL and 6000' MSL through the bomb run corridor (4 NM either side of centerline from 43°42'N, 100°56'W to 43°33'30''N, 102°18'W). The minimum IFR altitude through the corridor is 4700' MSL. After exiting the route at 43°33'30''N, 102°18'W aircraft shall climb so as to cross 43°30'N. 102°50'W at 12,000' MSL; then at 12,000' MSL direct to 43°34'N, 103°20'W then climb direct so as to cross 43°37'30''N, 103°50'W at FL 180 then climb direct so as to cross 43°46'N, 105°00'W at or below FL 230 then climb direct so as to cross 43°49'N, 105°30'W (CZI 090/42 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33'30''N, 102°18'W turn right and climb or descend so as to cross 43°40'N, 102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°56'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30''N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30''N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08'N, 97°00'W to 43°29'N, 97°35'W and 4 NM north of centerline between 43°29'N, 97°35'W to 43°32'N, 98°30'W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41'N, 99°13'W to 43°47'N, 99°45'W.

Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND OB-14

Revised Effective June 24, 1965

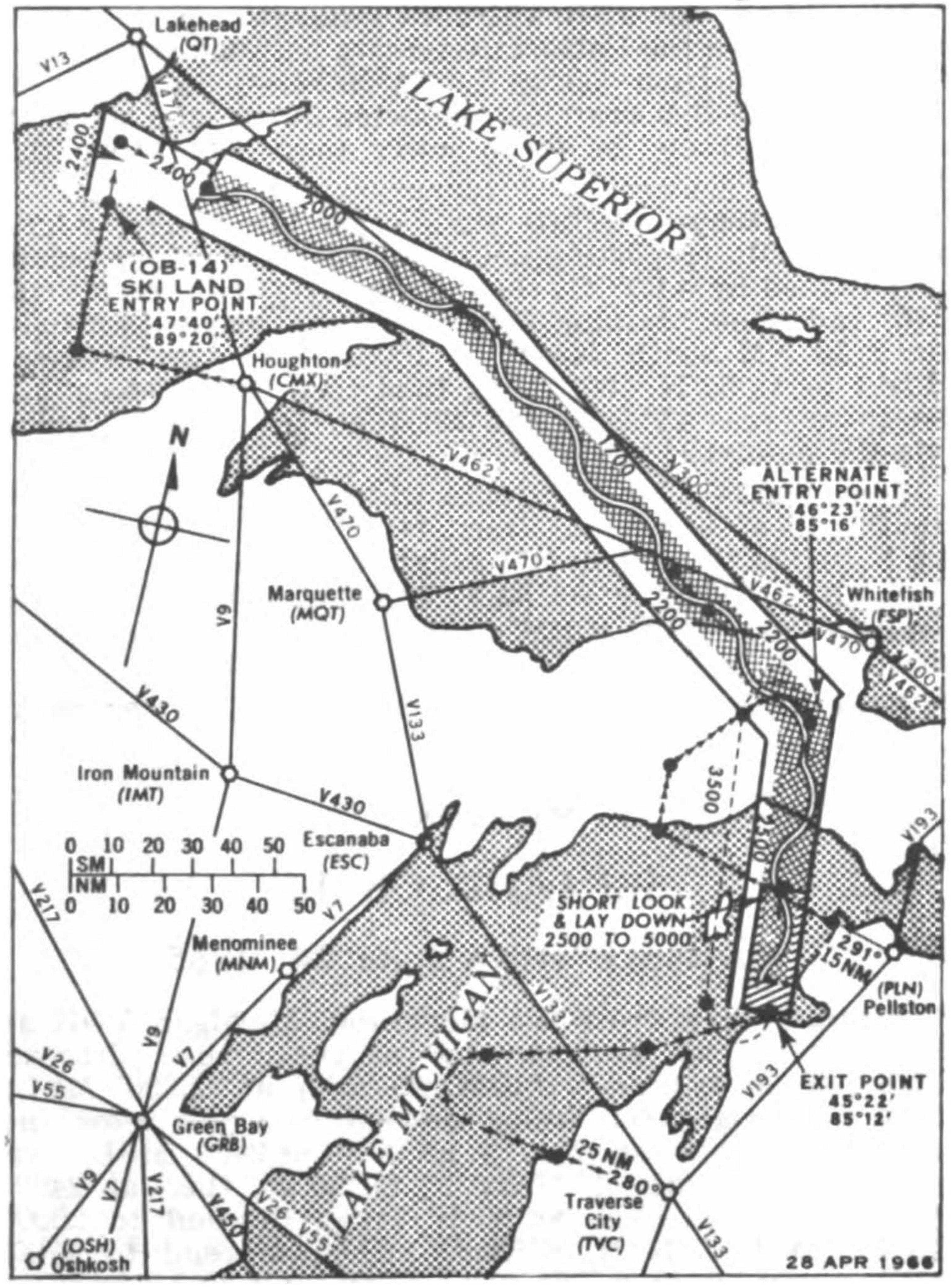
Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52''N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°48'N, 85°15'W.

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°-16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.


Lakehead (QT)
LAKE SUPERIOR
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
ALTERNATE ENTRY POINT 46°23' 85°16'
Marquette (MQT)
Whitefish (FSP)
Iron Mountain (IMT)
Escanaba (ESC)
SM
NM
0 10 20 30 40 50
Menominee (MNM)
SHORT LOOK & LAY DOWN 2500 TO 5000
291° 15NM
(PLN) Pellston
EXIT POINT 45°22' 85°12'
LAKE MICHIGAN
Green Bay (GRB)
25NM 280°
Traverse City (TVC)
(OSH) Oshkosh
28 APR 1966

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°-20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

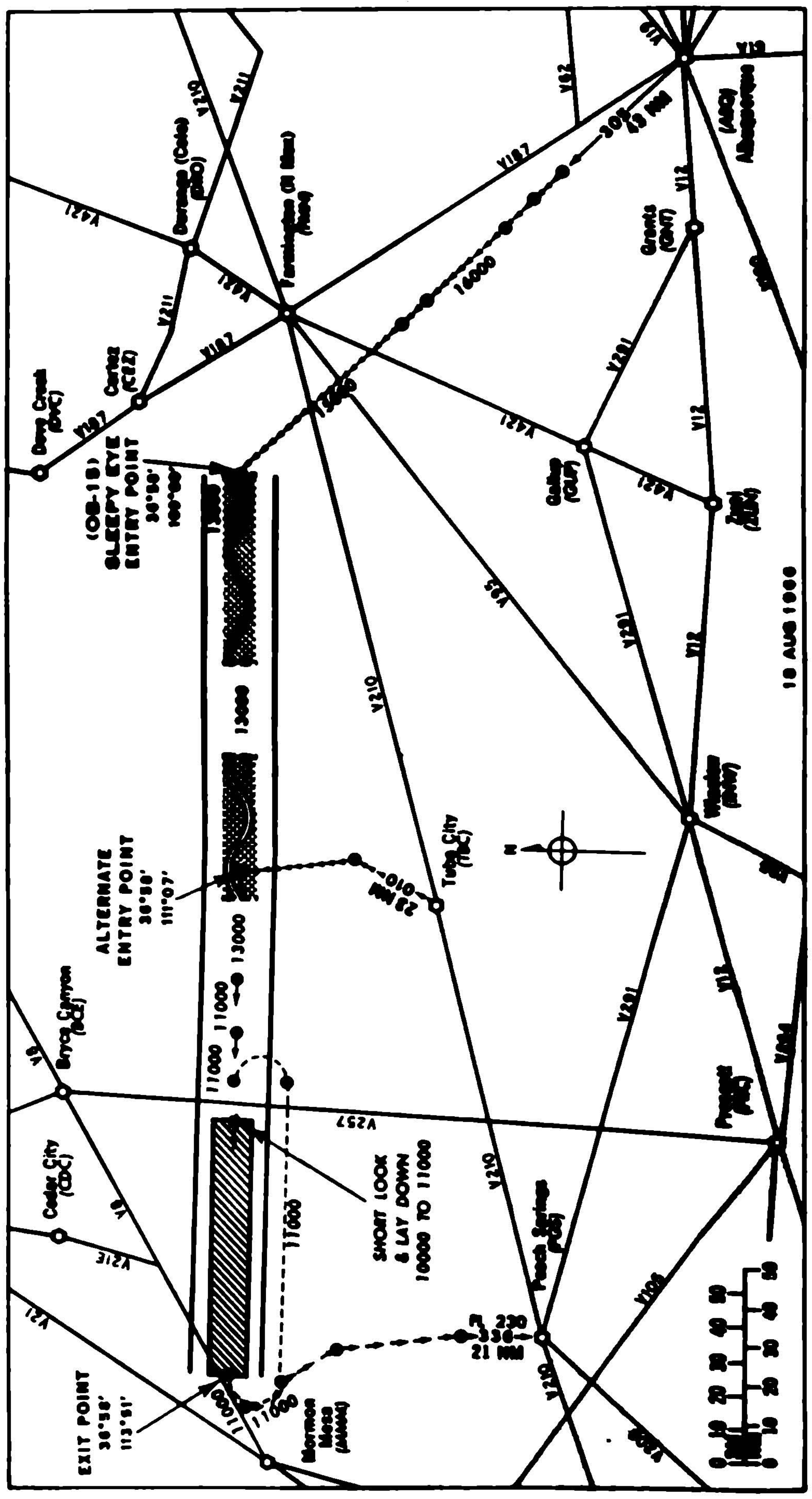
ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE OB-15

Revised Effective August 4, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°49'N, 107°-42'W at 16,000' MSL; then maintain 16,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.

Short Look and Lay Down—After passing 36°58'N, 112°-29'W aircraft shall operate between 10,000' and 11,000'


(ABQ) Albuquerque
305° 43 NM
Grants (GNT)
Durango (Colo) (DRO)
Farmington (N Mex) (FMN)
Cortez (CEZ)
Dove Creek (DVC)
(OB-15) SLEEPY EYE ENTRY POINT 36°58' 109°00'
Gallup (GUP)
Zuni (ZUN)
16000
15000
13000
ALTERNATE ENTRY POINT 36°58' 111°07'
010° 22 NM
Tuba City (TBC)
Winslow (INW)
Bryce Canyon (BCE)
Cedar City (CDC)
SHORT LOOK & LAY DOWN 10000 TO 11000
Peach Springs (PGS)
Prescott (PRC)
FL 230 336° 21 NM
EXIT POINT 36°58' 113°51'
Mormon Mesa (MMM)
11000
10 AUG 1966

MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30''N, 113°32'W).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left direct to cross 36°58'N, 112°16'W at or below 11,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°58N, 111°16'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07'30''N, 111°16'W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28'N, 111°04'W); then descend direct to cross 36°58'N, 111°07'W at 13,000' MSL; thence via published route.

Hours of Operation—24 hours daily, 7 days a week.

MAINE/NEW HAMPSHIRE/NEW YORK/VERMONT

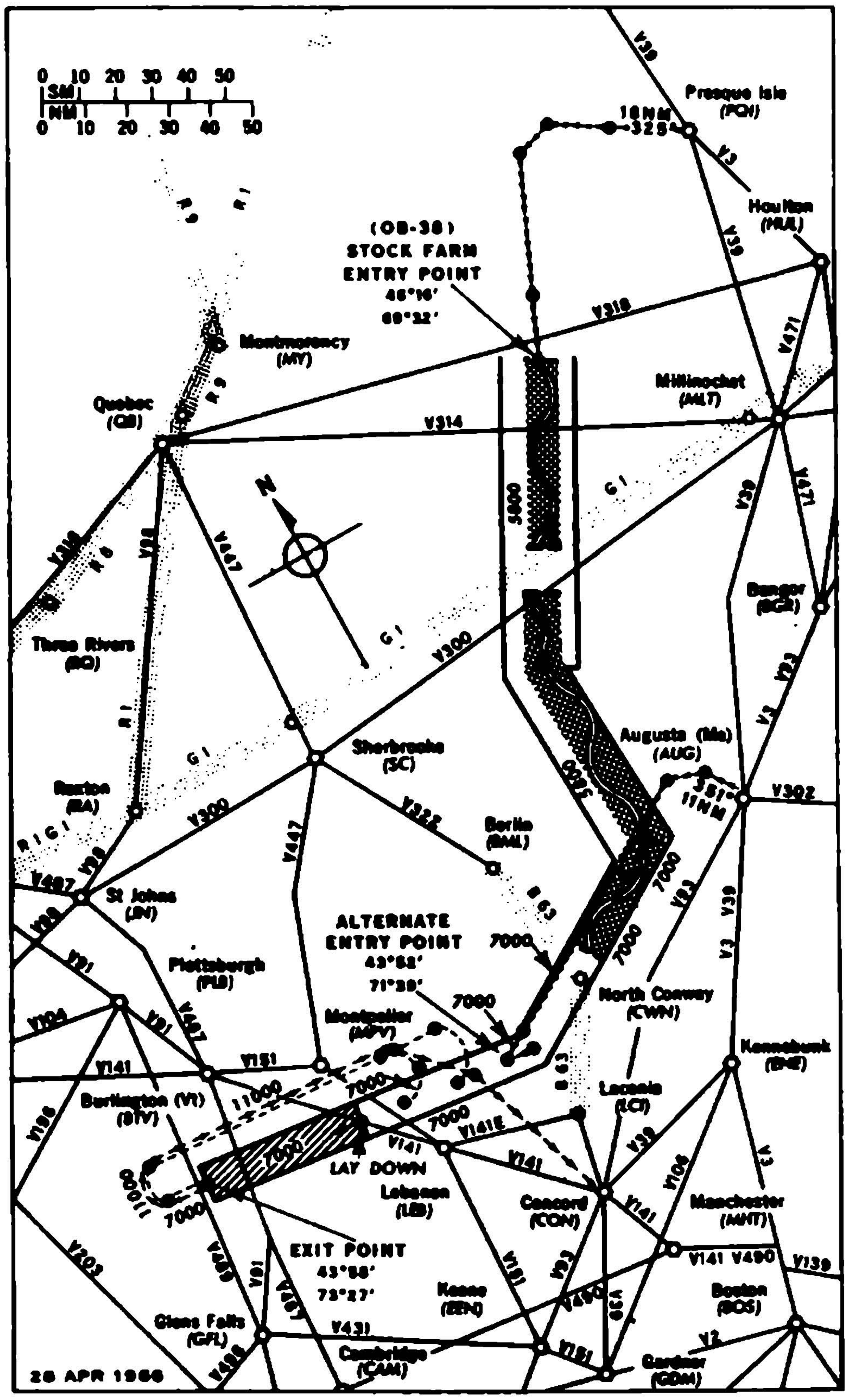
STOCK FARM OB-38

Effective: April 24, 1966 thru September 24, 1966

Aircraft shall cross 46°46'30''N, 68°06'W (Presque Isle, Maine VORTAC) at FL 250, or as assigned by ARTCC, then at FL250, or assigned FL, direct to 46°56'N, 68°28'W (Presque Isle VORTAC 325/18 NM DME fix); descend direct to cross 47°04'N, 68°46'W at or above FL 180; turn left descending to 47°02'N, 69°00'W; continue descent direct to cross 46°30'N, 69°22'30''W at or below 8000' MSL; descend direct to cross 46°16'N, 69°32'W route low level entry point at 5800' MSL; then at 5,800' MSL direct to 45°11'N, 70°24'W; direct 44°22'N, 70°22'W; climb direct so as to cross 44°17'N, 70°33'W at 7,000' MSL; direct 43°51'N, 71°30'W; (reporting point) direct 43°55'N, 72°32'W.

Lay Down—After passing 43°55'N, 72°32'W, aircraft shall operate at 7,000' MSL through the bomb run corridor (4 NM either side of centerline from 43°55'N, 72°32'W to 43°58'N, 73°27'W). After exiting the route at 43°58'N, 73°27'W, aircraft shall maintain 7,000' MSL direct 43°59'N, 73°41'W; (reporting point) turn right; climb to cross 44°09'N, 73°41'W at 11,000' MSL; direct 44°07'N, 72°11'W; climb direct to cross 43°52'N, 71°51'W at or below 14,000' MSL; then climb direct so as to cross 43°13'N, 71°35'W (Concord, N.H. VOR) at FL 230 or as assigned by ARTCC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 43°58'N, 73°27'W, maintain 7,000' MSL direct to 43°59'N, 73°41'W; (reporting point) turn right, climb to cross 44°09'N, 73°41'W at 11,000' MSL; then at 11,000' MSL direct 44°07'N, 71°55'W; turn right, descend to cross 43°53'N, 71°57'W at 7,000' MSL; thence via the published route. The aircraft may after 44°09'N, 73°41'W at 11,000' MSL; proceed direct to 44°07'N, 72°16'W; then turn right and descend so as to cross 44°00'N, 72°07'W at 7,000' MSL; then continue turn at 7,000' MSL; to 43°54'N, 72°16'W thence via the published route.


0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
Presque Isle (PQI)
18NM
325°
Houlton (HUL)
(OB-38) STOCK FARM ENTRY POINT 46°16' 69°32'
Montmorency (MY)
Quebec (QB)
V314
V318
Millinocket (MLT)
N
Three Rivers (RO)
Bangor (BGR)
5800
Sherbrooke (SC)
Augusta (Me) (AUG)
351° 11NM
V302
Berlin (BML)
Roxton (RA)
St Johns (JN)
ALTERNATE ENTRY POINT 43°52' 71°39'
7000
Plattsburgh (PLB)
Montpelier (MPV)
North Conway (CWN)
Kennebunk (ENE)
Burlington (VT) (BTV)
V141
V151
LAY DOWN
Lebanon (LEB)
Laconia (LCI)
Concord (CON)
Manchester (MHT)
EXIT POINT 43°58' 73°27'
Keene (EEN)
Boston (BOS)
Glens Falls (GFL)
V431
Cambridge (CAM)
Gardner (GDM)
28 APR 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 46°16'N, 69°32'W to 45°36'30''N, 70°03'30''W and from 45°27'N, 70°11'W to 44°06'N, 70°58'W. VFR operations shall not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 44°19'N, 69°47'W (Augusta, Maine VOR) at FL 180 or as assigned by ARTCC; then at FL 180 direct 44°29'N, 69°54'W (Augusta VOR 351° radial 11 NM); then at FL 180 or assigned altitude, turn left to 44°32'N, 70°06'W; descend direct to cross 44°11'N, 70°55'W at 7,000' MSL; direct 43°56'N, 71°30'W; then at 7,000' MSL direct to 43°52'N, 71°39'W; (reporting point) thence via the published route.

Route Width—The route width is reduced to 4 NM on the east side of centerline from 45°11'N, 70°24'W to 44°22'N, 70°22'W and to 4 NM on either side of centerline from 44°22''N, 70°22'W to 43°58'N, 73°27'W. The VFR route width is reduced to 2 NM on the W side of centerline from 46°16'N, 69°32'W to 45°36'30''N, 70°03'30''W.

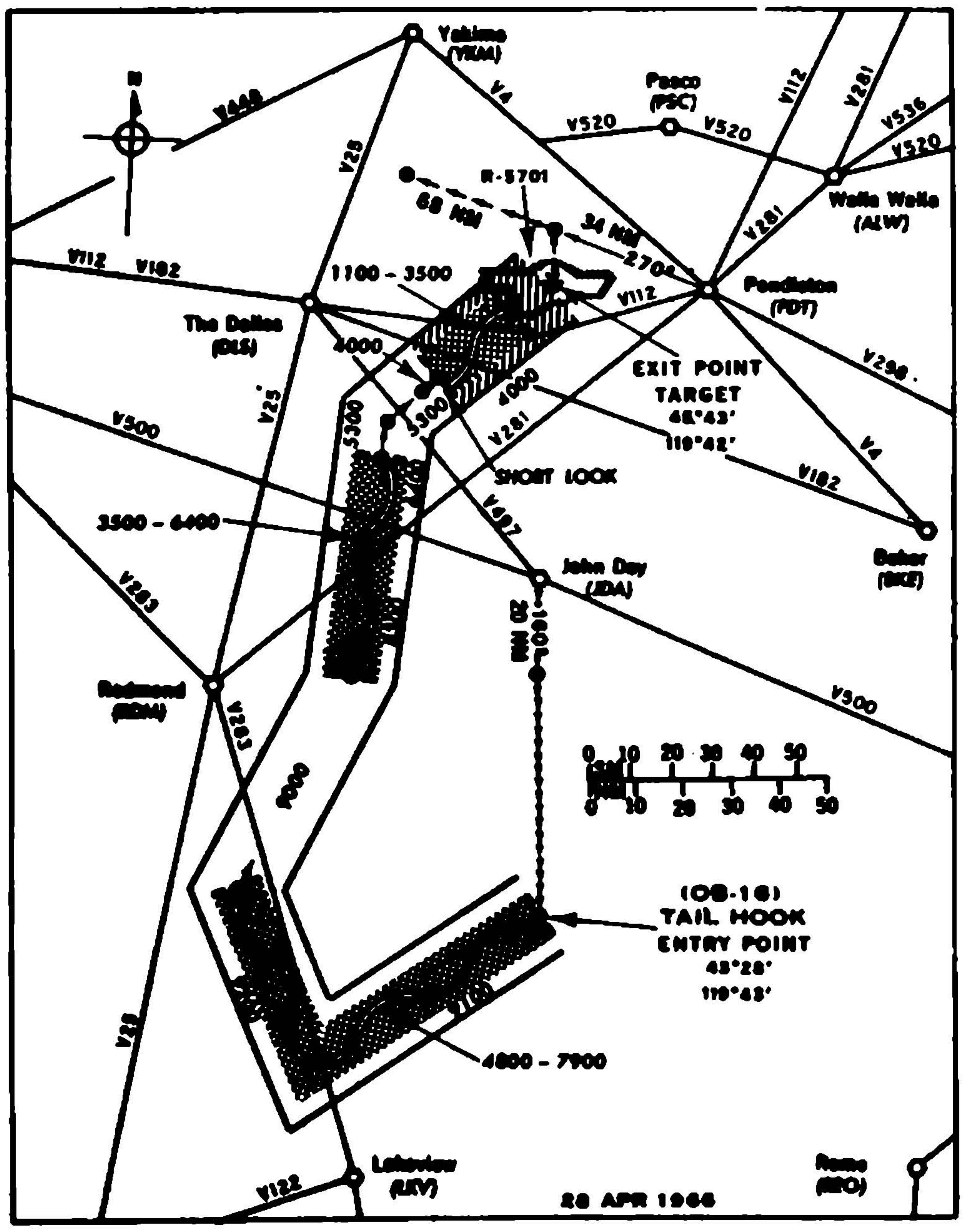
Hours of Operation—24 hours daily, 7 days per week.

OREGON

TAIL HOOK OB–16

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at FL 230, or as assigned by Seattle ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19'N, 119°43'W); then descend to 9100' MSL to the entry point of the low level route at 43°28'N, 119°43'W; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 5400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.



Short Look—After passing 45°23'N, 120°18'W, aircraft shall maintain 4000' MSL until within Restricted Area R–5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 NM fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 NM fix at FL 230.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R–5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

● Revise first paragraph effective September 25, 1966 to read:

Aircraft shall cross the John Day, Oregon VOR (reporting point) at FL 230, or as assigned by ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 NM south of the John Day VOR (44°19'N, 119°43'W); then descend to cross 43°55'N, 119°43'W at 10,000' MSL; then descend to cross 43°28'N, 119°43'W (entry point) at 9,100' MSL; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

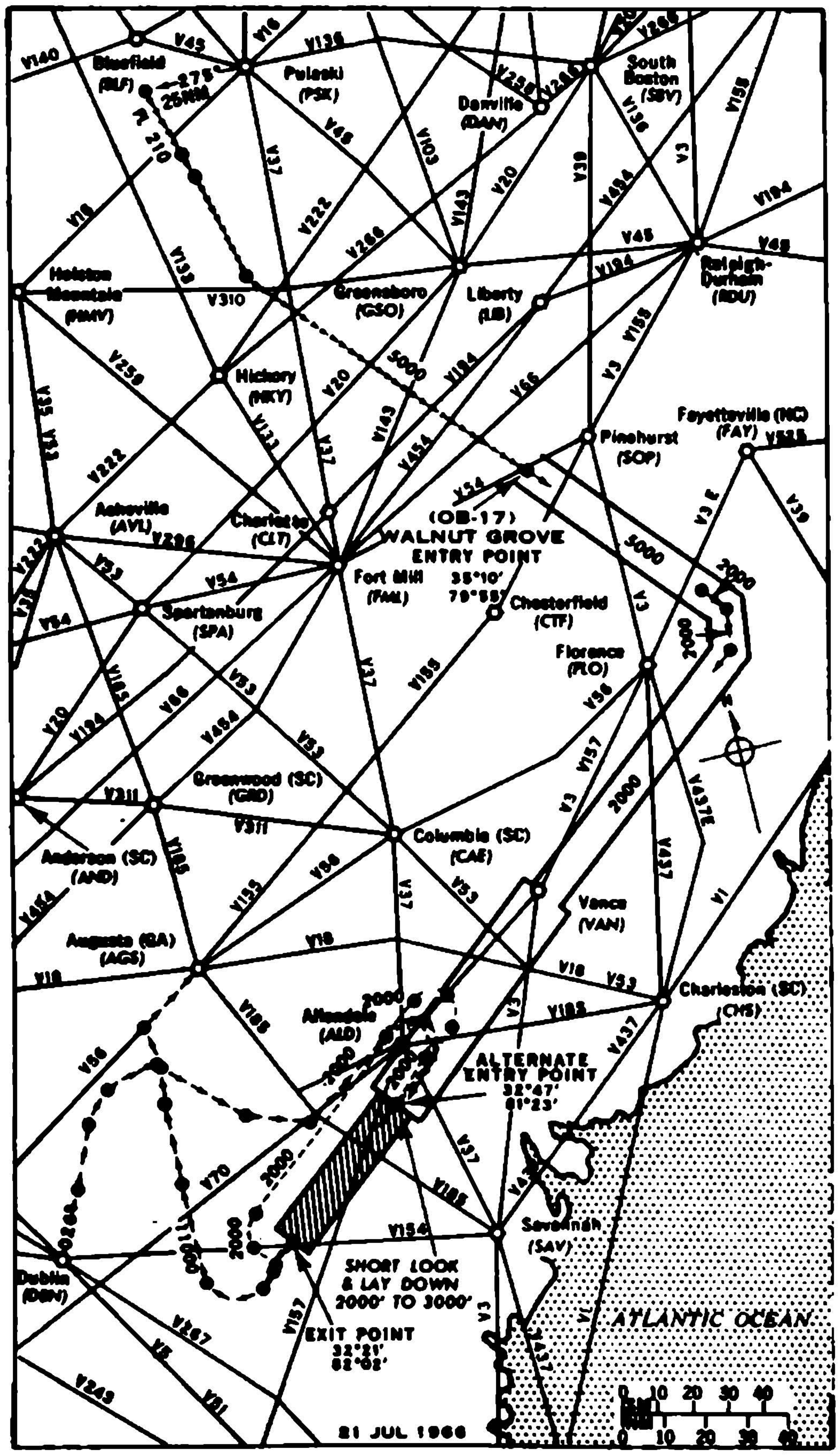
WALNUT GROVE OB–17

Revised Effective January 6, 1966

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°18'N, 79°18'W; then at 2000' MSL direct to 32°47'N, 81°23'W.

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000' MSL through the bomb run corridor (4 NM either side of center line from 32°47'N, 81°23'W to 32°21'N, 82°02'W). After exiting the route at 32°21'N, 82°02'W, aircraft shall climb to or maintain 3,000' MSL to 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4,000' MSL; cross 32°12'N, 82°15'W at 6,000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30''W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21'N, 82°02'W, turn right and descend or maintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' MSL continue turn to 32°30'N, 82°11'W; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04'N, 81°10'W; continue turn to 32°-55'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 81°23'W; thence via the published route. Aircraft may proceed at 2000' MSL from 32°30'N, 82°11'W, direct 33°11'N, 81°09'30"W; turn right to 33°11'N, 80°59'30" W; continue turn to 33°02'N, 81°01'W; thence via published route.


Bluefield (BLF)
Pulaski (PSK)
Danville (DAN)
South Boston (SBV)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Asheville (AVL)
Charlotte (CLT)
(OB-17) WALNUT GROVE ENTRY POINT 35°10' 79°58'
Fort Mill (FML)
Chesterfield (CTF)
Florence (FLO)
Spartanburg (SPA)
Greenwood (SC) (GRD)
Anderson (SC) (AND)
Columbia (SC) (CAE)
Vance (VAN)
Augusta (GA) (AGS)
Allendale (ALD)
Charleston (SC) (CHS)
ALTERNATE ENTRY POINT 32°47' 81°23'
Savannah (SAV)
Dublin (DBN)
SHORT LOOK & LAY DOWN 2000' TO 3000'
EXIT POINT 32°21' 82°02'
ATLANTIC OCEAN
0 10 20 30 40
0 10 20 30 40
21 JUL 1966

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 026° radial so as to cross 32°47'N, 82°59'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000' MSL; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04', 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26'N, 80°25'W to 32°47'N, 81°23'W the route width is reduced to 6 NM.

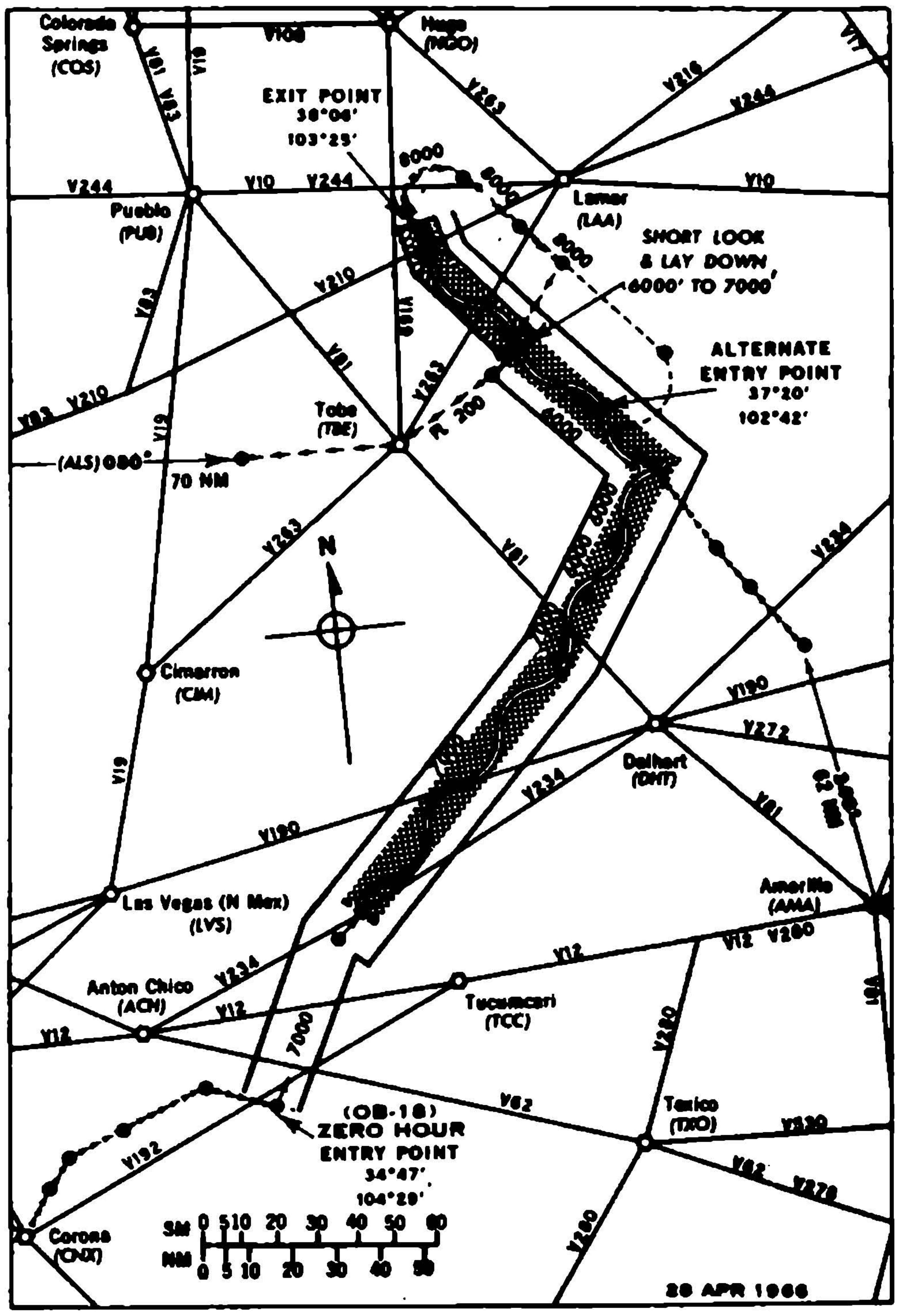
Hour of Operation—24 hours daily, 7 days a week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB-18

Revised Effective June 19, 1966

Aircraft shall cross 34°22'N, 105°40'30"W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33' N, 105°33'W at or below FL 230; then descend direct to cross 34°40'N, 105°28'W at FL 220; then descend direct to cross 34°45'N, 105°12'W at or below 17,000' MSL; then descend direct to cross 34°53'N, 104°48'W at 10,000' MSL; then descend direct to cross the route entry point at 34°47'N, 104°29' W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104°08'W; then 7000' MSL direct to 36°22'N, 103°00'W; then 7000' MSL direct to 36°37'N, 102°49'W; then descend direct to cross 36°49'N, 102°40'W at 6000' MSL; then 6000' MSL direct to 37°06'N, 102°-27'W; then 6000' MSL direct to 37°36'N, 103°00'W.


Colorado Springs (COS)
Hugo (HGO)
EXIT POINT 38°06' 103°23'
Pueblo (PUB)
Lamar (LAA)
SHORT LOOK & LAY DOWN 6000' TO 7000'
ALTERNATE ENTRY POINT 37°20' 102°42'
Tobe (TBE)
(ALS) 080°
70 NM
Cimarron (CIM)
Dalhart (DHT)
Las Vegas (N Mex) (LVS)
Amarillo (AMA)
Anton Chico (ACH)
Tucumcari (TCC)
(OB-18) ZERO HOUR ENTRY POINT 34°47' 104°29'
Texico (TXO)
Corona (CNX)
SM 0 5 10 20 30 40 50 60
NM 0 5 10 20 30 40 50
20 APR 1966

Short Look and Lay Down—After passing 37°36'N, 103°-00'W, aircraft shall maintain between 6000' MSL and

7000′ MSL thru the bomb run corridor (4 NM either side of centerline from 37°36′N, 103°00′W to 37°57′N, 103°22′W to 38°06′N, 103°25′W). After exiting the route at 38°06′N, 103°25′W climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, turn right, maintain 8000′ MSL to 38°15′N, 103°10′W, then 8000′ MSL direct to 38°02′N, 102°55′W, then climb direct to cross 37°53′N, 102°45′W at 9000′ MSL, continue climb direct to cross 37°30′N, 103°08′W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16′N, 104°21′W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06′N, 103°25′W, climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, maintain 8000′ MSL right turn to 38°15′N, 103°10′W, then 8000′ MSL direct 37°29′N, 102°18′W; then turn right descending to cross 37°14′N, 102°35′W at 6000′ MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 35°30′N, 104°01′W to 38°06′N, 103°25′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross 36°19′N, 101°51′W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34′N, 102°03′W at 17,000′ MSL; then descend direct to cross 36°44′N, 102°11′W at 14,000′ MSL; then descend direct to cross 37°06′N, 102°27′W at 11,000′ MSL; then descend direct to cross 37°20′N, 102°42′W at 6000′ MSL; thence via the published route.

Route Width—The route width from 34°47′N, 104°29′W to 35°24′N, 104°08′W is reduced to 4 NM on the east side of centerline, and from 37°36′N, 103°00′W, to 38°06′N, 103°25′W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective September 17, 1966:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
Alma, Mich.—Alma Muni Arpt	No. 1, Orig.	Established
Columbus, Nebr.—Columbus Muni Arpt	No. 1, Amdt. 2	Revised
Minneapolis, Minn.—Minneapolis-St. Paul Int'l (Wold-Chamberlain) Arpt	No. 1, Amdt. 10	Revised
Minneapolis, Minn.—Minneapolis-St. Paul Int'l (Wold-Chamberlain) Arpt	No. 2, Amdt. 5	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	No. 1, Amdt. 24	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	No. 2, Amdt. 10	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	No. 3, Amdt. 1	Revised
VHF OMNIRANGE		
Crescent Beach, S.C.—Myrtle Beach Arpt	No. 1, Orig.	Established
Crescent Beach, S.C.—Myrtle Beach Arpt	No. 2, Orig.	Established
Crescent Beach, S.C.—Myrtle Beach Arpt	No. 1, Amdt. 6, efctv 6 Nov 65	Cancelled
Lawrenceville, Ga.—Gwinett Co. Arpt	No. 1, Orig.	Established
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	No. 1, Amdt. 10	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	No. 2, Amdt. 1	Revised
Tomahawk, Wis.—Drott Arpt	No. 1, Amdt. 3	Revised
TERMINAL VOR		
Columbus, Nebr.—Columbus Muni Arpt	TerVOR–14, Amdt. 2	Revised
Marquette, Mich.—Marquette County Arpt	TerVOR–8, Amdt. 6	Revised
Marquette, Mich.—Marquette County Arpt	TerVOR–26, Amdt. 5	Revised
Minneapolis, Minn.—Flying Cloud Arpt	TerVOR–9L, Amdt. 3	Revised
Rhinelander, Wis.—Rhinelander-Oneida County Arpt	TerVOR–5, Amdt. 2	Revised
Rhinelander, Wis.—Rhinelander-Oneida County Arpt	TerVOR–15, Amdt. 5	Revised
VOR/DME		
Lawrenceville, Ga.—Gwinett County Arpt	No. 1, Orig.	Established
Rhinelander, Wis.—Rhinelander-Oneida County Arpt	No. 1, Orig.	Established
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	No. 1, Orig., efctv 14 Nov 64	Cancelled
West Memphis, Ark.—West Memphis Muni Arpt	No. 1, Orig.	Established
West Memphis, Ark.—West Memphis Muni Arpt	No. 2, Orig.	Established
INSTRUMENT LANDING SYSTEM		
Minneapolis, Minn.—Minneapolis-St. Paul Int'l (Wold-Chamberlain) Arpt	ILS–4, Amdt. 10	Revised
Minneapolis, Minn.—Minneapolis-St. Paul Int'l (Wold-Chamberlain) Arpt	ILS–11R (Back Course), Amdt. 11	Revised
Minneapolis, Minn.—Minneapolis-St. Paul Int'l (Wold-Chamberlain) Arpt	ILS–22 (Back Course), Amdt. 6	Revised

Location	Procedure	Action
Minneapolis, Minn.—Minneapolis-St. Paul Int'l (Wold-Chamberlain) Arpt	ILS-29L, Amdt. 22	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	ILS-6 (Back Course), Amdt. 17	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	ILS-12R, Amdt. 3	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	ILS-24, Amdt. 29	Revised

RADAR

Minneapolis, Minn.—Minneapolis-St. Paul Int'l (Wold-Chamberlain) Arpt	No. 1, Amdt. 17	Revised
St. Louis, Mo.—Lambert-St. Louis Muni Arpt	No. 1, Amdt. 11	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective September 24, 1966:

AUTOMATIC DIRECTION FINDING

Columbus, Ohio—Ohio State Univ. Arpt.	No. 1, Orig.	Established
Defiance, Ohio—Bryan Defiance Mem. Arpt.	No. 1, Amdt. 1	Revised
Flint, Mich.—Bishop Arpt.	No. 1, Amdt. 8	Revised
Grand Junction, Colo.—Walker Field	No. 1, Admt. 4	Revised
Moses Lake, Wash.—Grant County Arpt.	No. 1, Orig.	Established
New York, N.Y.—LaGuardia Arpt.	No. 1, Amdt. 24	Revised
Stockton, Calif.—Stockton Metropolitan Arpt.	No. 1, Amdt. 4	Revised
Utica, New York—Oneida County Arpt.	No. 2, Amdt. 3	Revised

VHF OMNIRANGE

Bowling Green, Ohio—University Arpt.	No. 1, Amdt. 4	Revised
Bradford, Pa.—Bradford-McKean County Arpt.	No. 2, Amdt. 2	Revised
Janesville, Wis.—Rock County Arpt.	No. 1, Amdt. 10	Revised
Moses Lake, Wash.—Grant County Arpt.	No. 1, Orig.	Established
Moses Lake, Wash.—Grant County Arpt.	No. 2, Orig.	Established
Stockton, Calif.—Stockton Metropolitan Arpt.	No. 1, Amdt. 7	Revised
Watertown, N.Y.—Municipal Arpt.	No. 1, Amdt. 7	Revised

TERMINAL VOR

Durango, Colo.—Durango-La Plata County Arpt.	TerVor R-104, Amdt. 9	Revised
Eugene, Ore.—Mahlon Sweet Fld.	VOR-16, Amdt. 10	Revised
Flint, Mich.—Bishop Arpt.	TerVOR-5, Amdt. 3	Revised
Flint, Mich.—Bishop Arpt.	TerVOR-9, Amdt. 6	Revised
Flint, Mich.—Bishop Arpt.	TerVOR-18, Amdt. 3	Revised
Flint, Mich.—Bishop Arpt.	TerVOR-23, Amdt. 4	Revised
Flint, Mich.—Bishop Arpt.	TerVOR-27, Amdt. 3	Revised
Sarasota, Fla.—Sarasota-Brandenton Arpt.	TerVOR-13, Amdt. 6	Revised

VOR/DME

Buffalo, N.Y.—Greater Buffalo Int'l. Arpt.	VOR-DME #1, Amdt. 8	Revised
Janesville, Wis.—Rock County Arpt.	No. 1, Amdt. 1	Revised

INSTRUMENT LANDING SYSTEM

Brownsville, Texas—Rio Grande Valley Int'l. Arpt.	ILS-17L, Amdt. 22	Revised
Flint, Mich.—Bishop Arpt.	ILS-9, Amdt. 9	Revised
Grand Junction, Colo.—Walker Field	ILS-11, Amdt. 20	Revised
Hyannis, Mass.—Barnstable Muni. Arpt.	ILS-24, Amdt. 5	Revised
Moses Lake, Wash.—Grant County Arpt.	ILS-32, Orig.	Established
Stockton Calif.—Stockton Metro. Arpt.	ILS-29R, Amdt. 6	Revised

RADAR

Bangor, Maine—Dow AFB	No. 1, Amdt. 3	Revised
New York, N.Y.—John F. Kennedy Int'l. Arpt.	No. 1, Amdt. 12	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective October 1, 1966:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
Reno, Nev.—Reno Municipal Arpt	No. 2, Amdt. 3	Revised
St. Petersburg-Clearwater, Fla.—St. Petersburg-Clearwater Int'l Arpt	No. 1, Amdt. 10	Revised
VHF OMNIRANGE		
Alamosa, Colo.—Alamosa Municipal Arpt	No. 1, Amdt. 2	Revised
Killeen, Tex.—Killeen Municipal Arpt	No. 1, Amdt. 1	Revised
TERMINAL VOR		
Corvallis, Ore.—Corvallis Municipal Arpt	VOR-17, Amdt. 2	Revised
Greenwood, S.C.—Greenwood County Arpt	TerVOR-9, Amdt. 5	Revised
Greenwood, S.C.—Greenwood County Arpt	TerVOR-27, Amdt. 4	Revised
Norfolk, Neb.—Karl Stefan Memorial Arpt	TerVOR-31, Amdt. 1	Revised
Twin Falls, Idaho—Twin Falls Municipal Arpt	VOR-25, Amdt. 7	Revised
VOR/DME		
Binghamton, N.Y.—Broome County Arpt	VOR/DME #2, Amdt. 5	Revised
Twin Falls, Idaho—Twin Falls Municipal Arpt	VOR/DME #1, Orig.	Established
Twin Falls, Idaho—Twin Falls Municipal Arpt	VOR/DME #2, Orig.	Established
INSTRUMENT LANDING SYSTEM		
Boise, Idaho—Boise Air Terminal	ILS-10L, Amdt. 17	Revised
Lansing, Mich.—Capital City Arpt	ILS-27, Amdt. 13	Revised
Meridian, Miss.—Key Field	ILS-1, Amdt. 11	Revised
Reno, Nev.—Reno Municipal Arpt	ILS-16, Amdt. 3	Revised
St. Petersburg-Clearwater, Fla.—St. Petersburg-Clearwater Int'l Arpt	ILS-17, Amdt. 9	Revised
RADAR		
San Antonio, Texas—San Antonio Int'l Arpt	No. 1, Amdt. 7	Revised
Tucson, Arizona—Tucson Int'l Arpt	No. 1, Amdt. 2	Revised

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Aberdeen	Aug 18 66	3/2/67	Fargo	Aug 18 66	3/2/67	Orlando	Apr 28 66	11/10/66
Albany	Jul 21 66	2/2/67	* Glacier Park	Oct 14 65	10/13/66	Phoenix	Jul 21 66	1/5/67
Albuquerque	Aug 18 66	3/2/67	Grand Canyon	May 26 66	12/8/66	* Pocatello	Mar 31 66	10/13/66
Aroostook	Apr 28 66	4/27/67	Grand Junction	May 26 66	11/10/66	Portland	Jul 21 66	2/2/67
Austin	Apr 28 66	11/10/66	Green Bay	May 26 66	12/8/66	→ Prescott	Sept 15 66	3/30/66
→ Beaumont	Sept 15 66	3/30/67	Huntington	Aug 18 66	2/2/67	Rapid City	Jun 23 66	12/8/66
Bellingham	May 26 66	12/8/66	Jacksonville	Apr 28 66	11/10/66	Reno	Jun 23 66	1/5/67
* Birmingham	Apr 28 66	10/13/66	Kansas City	Aug 18 66	2/2/67	Roswell	Jun 23 66	1/5/67
Boise	May 26 66	5/25/67	→ Klamath Falls	Sept 15 66	3/30/67	Sacramento	Jun 23 66	1/5/67
→ Boston	Sept 15 66	3/2/67	Kootenai	Feb 3 66	2/2/67	→ Salina	Sept 15 66	3/30/67
Burlington	Apr 28 66	11/10/66	La Grande	Jul 21 66	2/2/67	Salt Lake City	May 26 66	12/8/66
Butte	Jul 21 66	2/2/67	Lake Huron	May 26 66	5/25/67	San Antonio	Jun 23 66	1/5/67
* Casper	Mar 31 66	10/13/66	Lake Superior	Aug 18 66	3/2/67	San Diego	Aug 18 66	3/2/67
* Charlotte	Apr 28 66	10/13/66	Lake of Woods	Aug 18 66	8/17/67	San Francisco	Jun 23 66	1/5/67
Chattanooga	Aug 18 66	2/2/67	Lewiston	Apr 28 66	11/10/66	→ Savannah	Sept 15 66	3/2/67
Cheyenne	Jun 23 66	12/8/66	* Lincoln	Mar 31 66	10/13/66	Seattle	Jun 23 66	12/8/66
Chicago	May 26 66	12/8/66	Little Rock	Jul 21 66	1/5/67	Shreveport	Jun 23 66	1/5/67
Cincinnati	Aug 18 66	2/2/67	Los Angeles	Aug 18 66	3/2/67	Sioux City	May 26 66	11/10/66
Cleveland	May 26 66	11/10/66	→ Miami	Sept 15 66	3/30/67	Spokane	Jun 23 66	12/8/66
Corpus Christi	Jul 21 66	2/2/67	* Miles City	Apr 28 66	10/13/66	→ Trinidad	Sept 15 66	3/2/67
Dallas	Jul 21 66	2/2/67	Milwaukee	May 26 66	12/8/66	* Tulsa	Apr 28 66	10/13/66
Del Rio	Nov 11 65	11/10/66	→ Minot	Sept 15 66	3/2/67	Twin Cities	Apr 28 66	11/10/66
Denver	Jun 23 66	12/8/66	Mobile	Jul 21 66	2/2/67	* Washington, D.C.	Mar 31 66	10/13/66
Des Moines	Apr 28 66	11/10/66	Mt. Shasta	May 26 66	11/10/66	Wichita	Jun 23 66	1/5/67
Detroit	Jul 21 66	1/5/67	Mt. Whitney	Jun 23 66	1/5/67	Williston	Jul 21 66	7/20/67
* Douglas	Oct 14 65	10/13/66	Nashville	Jul 21 66	1/5/67	* Winston-Salem	Mar 31 66	10/13/66
→ Dubuque	Sept 15 66	3/30/67	→ New Orleans	Sept 15 66	3/30/67	→ Yellowstone Park	Sept 15 66	3/2/67
Duluth	Jul 21 66	7/20/67	* New York	Mar 31 66	10/13/66			
Elko	May 26 66	12/8/66	→ Norfolk	Sept 15 66	3/2/66	Hawaiian Is.	Dec 9 65	12/8/66
El Paso	Aug 18 66	3/2/67	Oklahoma City	Apr 28 66	11/10/66			

LOCAL CHARTS

Price 30 cents each

* Atlanta	Apr 28 66	10/13/66	Honolulu	Jan 6 66	1/5/67	* Philadelphia	Mar 31 66	10/13/66
→ Boston	Sept 15 66	3/2/67	Indianapolis	Aug 18 66	2/2/67	Phoenix	Jul 21 66	1/5/67
Brownsville	Jul 21 66	2/2/67	Jacksonville	Apr 28 66	11/10/66	Pittsburgh	May 26 66	11/10/66
Chicago	May 26 66	12/8/66	Kansas City	Aug 18 66	2/2/67	St. Louis	Aug 18 66	2/2/67
Cleveland	May 26 66	11/10/66	Los Angeles	Aug 18 66	3/2/67	San Diego	Aug 18 66	3/2/67
Dallas-Ft. Worth	Jul 21 66	2/2/67	→ Miami	Sept 15 66	3/30/67	San Francisco	Jun 23 66	1/5/67
Dayton	Aug 18 66	2/2/67	Milwaukee	May 26 66	12/8/66	San Juan	Dec 9 65	12/8/66
Denver	Jun 23 66	12/8/66	* Montgomery	Apr 28 66	10/13/66	Seattle	Jun 23 66	12/8/66
Detroit	Jul 21 66	1/5/67	* New York	Mar 31 66	10/13/66	* Washington	Mar 31 66	10/13/66
			→ Norfolk	Sept 15 66	3/2/67			

† DISCONTINUED
→ New Edition published. Obsoletes Earlier Edition on Sept. 15, 1966.
* New Edition will be published prior to Effective date, Oct. 13, 1966.

DATES OF LATEST EDITIONS (Continued)

WORLD AERONAUTICAL CHARTS - UNITED STATES

Price 25 cents each

WAC 62	Feb. 25, 1966	WAC 217	Sept. 2, 1965	WAC 360	Nov. 1, 1965
WAC 63	Mar. 23, 1966	WAC 218	Mar. 15, 1966	WAC 361	Oct. 25, 1965
WAC 64	Feb. 18, 1966	WAC 219	Mar. 17, 1966	WAC 362	Aug. 3, 1965
WAC 76	Oct. 27, 1965	WAC 262	Apr. 18, 1966	WAC 363	Sept. 6, 1965
WAC 77	Sept. 28, 1965	WAC 263	Apr. 13, 1966	WAC 364	Jan. 18, 1966
WAC 78	Sept. 27, 1965	WAC 264	Apr. 8, 1966	WAC 404	Aug. 3, 1965
WAC 117	May 2, 1966	WAC 265	Sept. 23, 1965	WAC 405	Feb. 11, 1966
WAC 118	June 3, 1965	WAC 266	Oct. 5, 1965	WAC 406	July 22, 1965
WAC 119	June 28, 1965	WAC 267	Nov. 12, 1965	WAC 407	Feb. 17, 1966
WAC 135	June 28, 1965	WAC 268	Mar. 9, 1966	→ WAC 408	May 31, 1966
* WAC 136	Sept. 8, 1965	WAC 269	Sept. 2, 1965	* WAC 409	July 9, 1965
* WAC 137	July 14, 1965	WAC 304	Jan. 18, 1966	→ WAC 410	June 8, 1966
WAC 138	Mar. 7, 1966	WAC 305	Sept. 3, 1965	WAC 466	May 12, 1966
WAC 139	Mar. 1, 1966	WAC 306	Sept. 29, 1965	→ WAC 467	May 31, 1966
WAC 186	Mar. 8, 1966	WAC 307	Oct. 1, 1965	WAC 468	Dec. 15, 1965
→ WAC 190	June 20, 1966	WAC 308	Oct. 29, 1965	WAC 469	Dec. 21, 1965
WAC 191	May 5, 1966	WAC 309	Nov. 22, 1965	WAC 470	Feb. 11, 1966
WAC 192	Jan. 27, 1966	WAC 310	Jan. 14, 1966	WAC 471	Mar. 8, 1966
WAC 193	Feb. 18, 1966	WAC 357	Apr. 21, 1966	WAC 522	Dec. 23, 1965
WAC 215	Jan. 17, 1966	WAC 358	May 9, 1966	WAC 525	June 16, 1966
WAC 216	Sept. 1, 1965	WAC 359	Oct. 27, 1965		

JET NAVIGATION CHARTS

Price 50 cents each

JN 29	United States Northwest	Apr. 4, 1966	* JN 44	United States Southwest	Feb. 17, 1966
JN 30	United States Northeast	Mar. 10, 1966	JN 45	United States Southeast	Jan. 11, 1966

PLANNING CHARTS

o VFR/IFR (Price $2.00)	Jan. 6, 1966
Aeronautical Chart Catalog (Free)	July, 1966

AIRCRAFT POSITION CHARTS

Price 30 cents each

3071	North Atlantic	Apr. 14, 1966
* 3073	Caribbean Sea	Feb. 16, 1966
3087	Central Pacific	May 16, 1966
* 3094	North Pacific	Apr. 19, 1966
3096	United States-Honolulu	June 14, 1966
3097	North America-Europe	May 12, 1966
3088	Southwest Pacific	June 6, 1966

† DISCONTINUED
→ New Edition published. Obsoletes Chart of Earlier date.
* New Edition will be published in about one month.
o Folded copies available on request.

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		ALABAMA			
5127	Auburn (Opelika)	8-20-66 (1)			
50	Birmingham		8-27-66 (1) 8-27-66 (2)	8-27-66R5	
633	Huntsville (Madison Co.)	8-20-66 (1)	8-20-66 (1)	8-20-66R18 8-20-66R36(BC)	
		ALASKA			
1234	Fairbanks (Intnl)		8-20-66 (1)	8-20-66 R19 8-20-66R1(BC)	8-20-66
2054	Fort Yukon	8-20-66R3 8-20-66R21	8-20-66 (1)		
1219	Wainwright AAF, Fairbanks (Fort Wainwright)				8-20-66
		ARIZONA			
5034	Flagstaff (Pulliam)	8-18-66Rad-070*			
5381	Grand Canyon (National Park)	8-13-66R3*			
322	Phoenix (Sky Harbor)	9-3-66 (1) 9-3-66DME(1) 9-3-66DME(2)	9-3-66 (1)		
		ARKANSAS			
5002	Rogers	9-3-66 (1)	9-3-66 (1)		
		CALIFORNIA			
162	Fresno (Air Terminal)	8-20-66 (1) 8-20-66DME(1) 8-20-66DME(2)	8-20-66 (1)	8-20-66R29R	
5120	Hawthorne	8-20-66 (1) 8-20-66 (2)	8-20-66 (1)		
237	Los Angeles (Intnl)	8-27-66R25R	8-27-66 (1)	8-27-66R25L 8-27-66R25R	
294	Oakland (Intnl)	8-20-66 Rad-114		8-20-66R27R	
358	Sacramento	8-27-66 (1) 8-27-66DME(2)	8-27-66 (1)	8-27-66R2 8-27-66R20(BC)	
		COLORADO			
334	Pueblo (Memorial)	9-3-66 (1)	9-3-66 (1) 9-3-66 (2)	9-3-66R7 9-3-66R25(BC)	
		CONNECTICUT			
460	Windsor Locks (Bradley Fld)		8-27-66 (1)	8-27-66R6 8-27-66R24(BC)	
		DISTRICT OF COLUMBIA			
443	Washington (National)	9-3-66R15 9-3-66R36 9-3-66DME(1) 9-3-66DME(2) 9-3-66DME(3) 9-3-66VIS-River-APCH	9-3-66 (1) 9-3-66 (2)	9-3-66R36	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		FLORIDA			
257	Miami (Intnl)	9-3-66 (1)	9-3-66 (1) 9-3-66 (3)	9-3-66R27L 9-3-66R9L 9-3-66R9R(BC) 9-3-66R27R(BC)	
5048	Tallahassee (Mun.)		8-20-66 (1) 8-20-66R18(BC)	8-20-66R36	
416	Tampa (Intnl)	9-10-66 (1)*			
449	West Palm Beach (Intnl)	9-3-66DME(1)	9-3-66 (1)	9-3-66R9	
		GEORGIA			
25	Altanta	8-27-66 (2)	8-27-66 (1) 8-27-66 (2) 8-27-66 (3) 8-27-66 (4)	8-27-66R9L 8-27-66R33 8-27-66R27L(BC) 8-27-66R9R 8-27-66R9L&9R	
243	Macon	8-20-66DME (1)			
380	Savannah(Travis-Chatham-Field)		8-27-66 (1)	8-27-66R9	
		IDAHO			
57	Boise (Air Terminal)	8-20-66 (1) 8-20-66DME(1) 8-20-66DME(2)	8-20-66 (1)	8-20-66R10L	
590	Idaho Falls (Fanning Fld)	9-10-66R2 9-10-66R20			
		ILLINOIS			
5316	East St. Louis (Bi-State Parks)		9-10-66 (1)		
5004	Morris	9-10-66 (1)			
518	Springfield (Capital)	9-10-66 (1)	9-10-66 (1)	9-10-66R4 9-10-66R22(BC)	
		INDIANA			
5378	Huntingburg		8-18-66 (1)*		
203	Indianapolis (Weir Cook)	8-27-66 (1)	8-27-66 (1)	8-27-66R4 8-27-66R22(BC)	
		IOWA			
5325	Shenandoah		8-20-66 (1)		
		KANSAS			
684	Goodland (Renner Field)	8-20-66 (1)			
5241	Manhattan	8-27-66R3 8-27-66R31	8-27-66 (1)		
362	Salina (Municipal)	8-18-66 (1)*			
		KENTUCKY			
655	Covington (Grtr. Cincinnati)		8-13-66 (1) 8-13-66 (2)	8-13-66R36 8-13-66R18 8-13-66R18(BC) 8-13-66R36(BC)	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		LOUISIANA			
40	Baton Rouge (Ryan)	8-20-66 (1)	8-20-66 (1)	8-20-66R13 8-20-66R31(BC)	
270	Monroe	8-20-66 (1) 8-20-66DME(2)	8-20-66 (1)	8-20-66R4 8-20-66R22(BC)*	
		MAINE			
750	Auburn (Lewiston Mun.)		9-3-65 (2)		
5033	Caribou	8-27-66 (1)			
		MICHIGAN			
896	Hancock(Houghton Co. Mem)	9-3-66R13 9-3-66R25 9-3-66R31	9-3-66 (1)		
		MINNESOTA			
125	Duluth (Intnl)	8-20-66DME(1)	8-20-66 (1)	8-20-66R9 8-20-66R27(BC)	
5353	Fairmont	8-20-66R31			
5380	Fergus Falls (Einar Mickelson Field)	8-18-66R1*			
5298	Park Rapids	9-10-66R31			
		MISSISSIPPI			
572	Greenville (AFB/Mun)	8-18-66 (1)			
		MISSOURI			
213	Kansas City	8-27-66 (1) 8-27-66R3 8-27-66R18 8-27-66R21	8-27-66 (1)	8-27-66R18	
780	Kansas City(Mid-Continent Intnl)		9-10-66 (1)	9-10-66R36 9-10-66R18(BC)	
		MONTANA			
48	Billings (Logan Fld.)	9-3-66 (1) 9-3-66DME(2)	9-3-66 (1) 9-3-66 (2)	9-3-66R9	
588	Butte (Silver Bow Co.)	8-18-66 DME(1)*			
177	Great Falls (Intnl)	9-3-66 (1) 9-3-66DME(1)	9-3-66 (1)	9-3-66R34	
		NEBRASKA			
5217	Hastings (Municipal)	9-10-66R14	9-10-66 (1)		
232	Lincoln (Mun/AFB)	8-20-66 (1)	8-20-66 (1)	8-20-66R17R(BC) 8-20-66R35L	
304	Omaha(Eppley Airfield)	8-27-65 (1) 8-27-66DME(1)	8-27-66 (1)	8-27-66R14 8-27-66R32(BC)	
		NEVADA			
129	Elko	9-10-66 (1) 9-10-66DME(1)			
		NEW HAMPSHIRE			
868	Keene (Dillant-Hopkins)	8-13-66 (1)	8-13-66 (2)		

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		NEW JERSEY			
669	Atlantic City (NAFEC/ Pomona)		8-20-66 (1)	8-20-66R13	
908	Belmar(Monmouth Co.)	9-3-66 (1)			
5195	Colts Neck	9-3-66 (1)			
5331	Neptune (Asbury Park-Neptune)	8-20-66 (1)			
5060	Red Banks	9-3-66 (1)			
		NEW YORK			
704	Farmingdale(Republic Fld)	8-20-66 DME(1)	8-20-66 (1)		
779	Ithaca (Tompkins Co.)	8-15-66R14	8-15-66 (1)*		
610	New York (John F. Kennedy Intnl.)	9-10-66R4L&R 9-10-66R22R&L 9-10-66R13L&R 9-10-66R31R 9-10-66DME(1) 9-10-66RAD-140	9-10-66 (1) 9-10-66 (2) 9-10-66 (3)	9-10-66R4R 9-10-66 R22L 9-10-66R31R	
		NORTH CAROLINA			
5061	Asheville (Municipal)	8-20-66 (1)	8-20-66 (1) 8-20-66 (2)	8-20-66R34	
78	Charlotte (Douglas)	8-27-66DME(1) 8-27-66DME (2) 8-27-66DME (3) 8-27-66DME (4)	8-27-66 (1)	8-27-66R5	
5038	Kinston(Stallings Fld.)	8-27-66 (1) 8-27-66DME (1)*			
		NORTH DAKOTA			
51	Bismarck	8-20-66 (1)	8-20-66 (1) 8-20-66 (2)	8-20-66R30	
		OHIO			
638	Akron (Canton)		8-20-66 (1)	8-20-66R1	
83	Cincinnati (Mun.-Lunken)		8-20-66 (1)	8-20-66R20L	
84	Cleveland(Hopkins Intnl)		9-10-66 (1)	9-10-66R5R	
753	Willoughby (Lost Nation)		9-10-66 (1) 9-10-66 (2)		
466	Youngstown	9-10-66 (1)		9-10-66R14(BC)	
		OKLAHOMA			
432	Tulsa (Intnl)	8-27-66 (1)		8-27-66R17L(BC)	
		OREGON			
5063	Hillsboro(Portland-Hillsboro)	8-18-66 (1) 8-18-66DME (1)			
		PENNSYLVANIA			
100	Altoona (Martinsburg) (Blair Co.)	8-18-66 (1)	8-18-66 (1)*		
926	Bradford (McKean Co.)	8-27-66 (2) 8-27-66DME (1)			
723	Hazleton	8-20-66 (1)	8-20-66 (1)		

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		PENNSYLVANIA			
898	Johnstown (Cambria Co.)	8-27-66R5 8-27-66R23 8-27-66R15			
927	Lancaster	8-27-66R8 8-27-66R31	8-27-66 (1)		
5153	Mt. Pocono		8-20-66 (1)		
523	Philipsburg (Mid-State)	8-27-66 (1)	8-27-66 (1)		
570	Pittsburgh (Grtr.)	8-20-66R32	8-20-66 (1)	8-20-66R28L 8-20-66R10L	
661	Wilkes-Barre (Scranton)		8-20-66 (1)	8-20-66R4	
457	Williamsport (Lycoming Co.)			8-20-66R27	
		RHODE ISLAND			
333	Providence (Green)	9-3-66R5L&R 9-3-65DME (1)*			
		SOUTH CAROLINA			
5097	Grescent Beach (Myrtle Beach)	9-3-66 (1) 9-3-66 (2)*			
180	Greenvile (Downtown)		8-27-66 (1)	8-27-66R36	
		SOUTH DAKOTA			
396	Sioux Falls (Joe Foss Fld)	8-20-66 (1)	8-20-66 (1)	8-20-66R3 8-20-66R21 (BC)	
		TENNESSEE			
5311	Clarksville (Outlaw Fld.)	8-20-66 Rad-061			
218	Knoxville (McGhee-Tyson)	8-27-66 (1)	8-27-66 (2)		
807	Longview (GreggCo.)	8-20-66 (1) 8-20-66DME (1)	8-20-66 (1)	8-20-66R13	
		TEXAS			
19	Amarillo (AFB/Mun)	8-27-66 (1) 8-27-66 (2)	8-27-66 (1)	8-27-66R3 8-27-66R21 (BC)	
61	Brownsville (RioGrande Valley Intnl)		9-10-66 (1)	9-10-66R17L	
928	College Station (Easterwood Field)	9-10-66 (1)			
106	Dallas (Love Fld.)		8-20-66 (1)	8-20-66R13L	
866	Fort Worth (Greater Southwest Intnl Dallas-Fort Worth)	9-3-66R13 9-3-66R35	9-3-66 (1)	9-3-66R13 9-3-66R31 (BC)	
5017	Houston (Andrau Airpark)		8-27-66 (1)		
198	Houston (Wm. P. Hobby)	8-27-66DME (1) 8-27-66DME(4)	8-27-66 (1) 8-27-66 (4)	8-27-66R3 8-27-66R21 (BC)	
241	Lubbock	8-27-66 (1) 8-27-66DME(3) 8-27-66DME(2)	8-27-66 (1)	8-27-66R17R 8-27-66R35L(BC)	
369	San Antonio (Intnl)		8-20-66 (3)	8-20-66R12	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	VIRGINIA				
957	Newport News (Patrick Henry)		9-3-66 (1)	9-3-66R6	
	WASHINGTON				
139	Ephrata	8-27-66 (1)			
798	Pullman(Moscow Regional)	8-18-66 (1)*			
582	Seattle(Seattle-Tacoma Intnl)		8-13-66 (1) 8-13-66 (2)	8-13-66R34 8-13-66R16	
641	Wenatchee(Pangborn Fld)	8-20-66 (1)			
465	Yakima	8-20-66 (1)		8-20-66R27	
	WEST VIRGINIA				
852	Charleston (Kanawha)		8-13-66 (1)	8-13-66R23	
	WISCONSIN				
219	La Crosse	8-27-66R13	8-27-66 (1)		
5315	Land O'Lakes (King's Land O'Lakes)		8-20-66 (1)		
262	Milwaukee(General Mitchell Field)		9-3-66 (2)	9-3-66R7R* 9-3-66R19(BC)	
5379	Sheboygan (Co. Memorial)		8-18-66 (1)*		
5050	Stevens Point	9-3-66R3 9-3-66R21 9-3-66R30			
	RADAR SUPPLEMENT				
Radar	Pages 1 - 3*	8-66			

* NEW CHART

AIRMAN'S
INFORMATION
MANUAL

FEDERAL AVIATION AGENCY

PART 3A

EFFECTIVE 0501Z 15 SEPTEMBER 1966

To 0501Z 29 SEPTEMBER 1966

NOTICES
TO
AIRMEN

Part 3–A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necessarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and lndgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

BRANTLEY MUNI ARPT: Clsd UFN.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft.

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd. VFR acft ctc Craig Twr on 126.2 for tfc and lndg advisories.

ARIZONA

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PHOENIX, SKY HARBOR MUNI ARPT: 1200′ additional rnwy avail dalgt hrs E end of rnwy 8R–26L at pilot's discretion, due engr test.

ARKANSAS

FAYETTEVILLE RDO: FSS voice comms freqs 126.7, 121.5 mc unusable beyond 25 NM below 5500′ MSL 240–310°.

FLIPPIN ARPT: Clsd UFN due constr.

FORDYCE MUNI ARPT: Rnwy lgts inop UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BLUE CANYON ARPT: Clsd UFN.

BORREGO SPRINGS, BORREGO VALLEY-SAN DIEGO COUNTY ARPT: Rotating bcn inop UFN.

GORMAN RDO: DME shutdown until aprxly Oct. 14. Oct 3, VOR will be shutdown until aprxly Oct 5.

HANFORD MUNI ARPT: Clsd til aprxly Sep 27 for major repairs.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline.

PARKER RDO: DME shut down til aprxly Sep 30. VOR shut down during dalgt hrs Sep 19 til aprxly Sep 21.

SAN CARLOS ARPT: Extensive constrn txwy and rnwys til aprxly Sept 30. Flt operns dalgt hrs only. Lgts and bcn inop UFN. Lmtd parking for transients.

SAN DIEGO, LINDBERGH FLD TWR: ILS glide slope will be relctd and VOR 109.6 ident: LIF will be inop during dalgt hrs only until aprxly Dec 15.

SAN FRANCISCO INTL ARPT: Constr on E side of rnwy 1R runup mat dalgt hrs until aprxly Nov. 1.

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

SAN JUAN CAPISTRANO ARPT: Sep 1 thru Nov 1, constr in progress.

SAUSALITO RDO: DME shutdown for maintenance.

COLORADO

CORTEZ, CORTEZ–MONTEZUMA COUNTY ARPT: Clsd UFN due constr.

DENVER, STAPLETON INTL ARPT TWR: Glide slope rnwy 35 shutdown for mod til aprxly Nov 10.

DENVER, STAPLETON INTL ARPT: Apch lgts rnwy 35 inop until aprxly Oct 4.

MONTROSE COUNTY ARPT: Rnwy 12–30 clsd Mon-Fri 1400-2230.

TRINIDAD RDO: VHF/DF unusable beyond 40 mi below 8000′ MSL 280–120°, 9000′ MSL 120–135°, 15,000′ MSL 135–175°, 17,500′ MSL 175–220°, 14,500′ 220–280°.

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large acft including jets, also clsd for ngt operns.

WINDSOR LOCKS, BRADLEY FLD: Rnwy lgts rnwy 1–19 inop.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P-56. See Washington, D.C. chart under Special Notices–Area in Part 3 for location.

WASHINGTON DULLES INTERNATIONAL ARPT: Until aprxly Sep 23, rnwy 1R will be shut down on day-to-day basis excp when prevailing winds favor apchs from S and wea conditions below circling minimums of 500′ and 1–½ mi. Configuration A apch lgts sys will be decmsnd Sep 19 due conversion to minimum vsby apch lgt sys.

WASHINGTON NATL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying VIP or officers above rank of Major General or Rear Admiral (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C–140) (2) Sabreliner (T–39) (3) Morane Sauliner 760 (4) Jet Commander (Aero Commander) (4) Learjet Model 23 (Lear Jet Co.) (6) Hawker Siddley DH–125 (7) Fan Jet Falcon (8) Caravelle (9) DC–9 (10) BAC–111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet acft described in paragraph B (8) through (11) may not be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda, Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: HAITI, private acft landing or overflying Haiti must furnish 48 hours advance notice and a flight plan must be filed. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

MIAMI: Due to the lack of adequate inter center communications btn the Miami Center and adjacent CTA/FIR's and a continued increase in IFR and DVFR traffic btn points in Central America/Caribbean area and Florida, pilots on DVFR flights are advised to report to Key West FSS, Miami International FSS, Nassau Radio or Miami Aeronautical Radio Inc (ARINC) prior to penetrating the Gulf of Mexico Atlantic Coastal ADIZ: Pilots on IFR flights are advised to report to Miami Center, Miami International FSS Miami Aeronautical Radio Inc (ARINC), Key West FSS or Nassau Radio prior to entering the Miami FIR. Miami Center frequencies are: East of 79° West, 125.7/307.9; West of 79° are: 120.3/118.9/319.1, 124.4/281.4, 132.7/306.9, 127.7/362.3. Adherence to this procedure enhances identification and minimizes the possibility of being intercepted.

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

PENSACOLA MUNI ARPT TWR: ILS glide slope shut down UFN. Apch lgt sys rnwy 16 inop.

PENSACOLA MUNI ARPT: Constr apch ends rnwys 16 and 25 dalgt hrs. Apch lgts rnwy 16 inop.

ST. PETERSBURG-CLEARWATER INTL ARPT TWR: Effective Oct 1, twr hrs of opern will be 0600–2200 local time daily.

SANFORD NAS RDO: Rbn inop UFN.

TALLAHASSEE RDO: During shutdown of TLH VOR portion of VORTAC airways and intersections are defined by brgs from TLH Rbn located at VORTAC site instead of radials. MEAs remain unchanged. Blountstown Int is changed to MAI VOR 139 rad and PFN VOR 062 rad.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtd 80′ boom pile driver operg 1200′ N apch end rnwy 27 until aprxly Dec 1, 1966. Lgtg constr in progress adj rnwy 9–27 and SE end rnwy 13–31 til aprxly Nov 1966.

WEST PALM BEACH, PALM BEACH COUNTY PARK ARPT: Rnwy 9–27 and adjacent apron areas under constr til aprxly Nov.

GEORGIA

ALMA, BACON COUNTY ARPT: Clsd to all operns til aprxly Oct 1 due constr.

ATHENS RDO: Oct 13, VOR will be shutdown until aprxly Oct 16. DME will be shutdown Oct 12 until aprxly Oct 24 for antenna change.

COLUMBUS MUNI ARPT: Rnwy 16–34 clsd and rnwy 11–29 decreased to 3500′ due constr til aprxly Nov 15.

JEFFERSON, JACKSON COUNTY ARPT: Clsd to all operns for unknown duration due constr.

IDAHO

IDAHO FALLS, FANNING FLD: REIL inop UFN.

POCATELLO MUNI ARPT: Rnwy 16–34 lgts inop UFN.

ILLINOIS

CHICAGO–HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-O_HARE INTL TWR: ILS lclzr rnwy 32R ident: IDN and glide slope and PAR apch rnwy 14L shutdown until aprxly Nov 15 for relctn.

CHICAGO–O'HARE INTL ARPT: Constr on NW end of rnwy 14L–32R in progress until aprxly Oct 10.

EAST ST. LOUIS, LAKEVIEW ARPT: Clsd UFN.

GLENVIEW RDO: RBn, ident NBU inop UFN.

KANKAKEE, GREATER KANKAKEE ARPT: Constrn rnwy 4–22: rnwy intermittently clsd til aprxly Sep 25.

MOLINE, QUAD CITY ARPT TWR: ILS glide slope and lclzr serving rnwy 9 shutdown intermittently on day-by day basis until aprxly Oct 28.

PEORIA, MT. HAWLEY AUXILIARY ARPT: Clsd to all transient and ngt operns til aprxly Nov 1 for constrn, clsd marked on fld.

QUINCY MUNI-BALDWIN FLD: Rnwy lgts rnwy 17-35 inop UFN.

INDIANA

EVANSVILLE RDO: DME will be shut down Sep 19 til aprxly Sep 23. VOR will be shut down Sep 20 til aprxly Sep 21.

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope and MM rnwy 21 shutdown til Sep due rnwy constr.

GARY MUNI ARPT: SE end rnwy 12-30 under constr until aprxly Nov 1, monitor unicom freq.

INDIANAPOLIS RDO: DME will be shutdown Sep 12 thru Sep 16.

IOWA

CLARION MUNI ARPT: Clsd to transient acft UFN.

DES MOINES MUNI ARPT: Apch lgts and sequence flashers will be shutdown during daylgt hrs week days.

DES MOINES MUNI ARPT TWR: ILS lclzr rnwy 12-30 shutdown dalgt hrs until aprxly Oct. 6.

EMMETSBURG MUNI ARPT: Clsd UFN.

NEW HAMPTON MUNI ARPT: Clsd UFN.

RED OAK MUNI ARPT: N/S rnwy clsd due constrn til aprxly Oct 1.

WATERLOO MUNI ARPT TWR: ILS serving rnwy 12 shutdown UFN for relctn of lclzr.

WATERLOO MUNI ARPT: Due constr 600′ SE end of rnwy 12-30 clsd UFN, usable length of rnwy 4800′ threshold lgts will be displaced 600′.

KANSAS

GOODLAND RDO: VHF/DF unusable below 6000′ MSL beyond 40 NM.

RUSSELL MUNI ARPT: Rnwy 16-34 clsd til aprxly Sep 27 due constr. Arpt clsd ngt operns.

KENTUCKY

GREENVILLE, MUHLENBERG COUNTY ARPT: Rotating bcn inop UFN.

LEXINGTON, BLUE GRASS FLD: Rnwy 4-22 will be clsd nightly 2300-0700 EST, for overlay rnwy. Rnwys 15-33 and 8-26 clsd periodically during constr paving intersections.

LOUISVILLE, STANDIFORD FLD: Rnwy 11-29 clsd until aprxly Nov 15 due constr.

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope (rnwy 29) shut down UFN due rnwy constr. Lclzr and ASR will be shut down intermittently on day by day basis.

LOUISIANA

NEW ORLEANS-LAKEFRONT ARPT: Mound of sand N end rnwy 35, 1200′ long 800′ wide 7′ high lgtd and mrkd. Rnwy 17, 528′ tmpry displaced threshold remain til Dec 31, 1966. Rnwy 4 threshold displaced 700′ NE mrkd and lgtd. Rnwy length btn threshold reduced to 2500′. Rnwy 31 threshold displaced 637′ N, mrkd and lgtd. Rnwy length between threshold reduced to 3163′. Sandbard extends into Lake Pontchartrain aprxly 100′ N of apch end of seaplane ramp. Use extreme caution apchg ramp.

NEW ORLEANS INTL ARPT (MOISANT FLD): Rnwy 5-23 inop indef. Rnwy 1 threshold lgts moved 150′ N, rnwy length reduced to 6850′, use caution lndg rnwy 1 apch end aprxly 18 inches lower than rnwy level til aprxly Sep 30. E/W txwy clsd from firehouse to center txwy W til aprly Sep 30 repaving, lgtd with red flashing lgts.

MAINE

MILLINOCKET MUNI ARPT: Acft using rnwys 16-34 and 11-29 not visible to each other til apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4-22 and 15-33 not visible to each other until apchg intersection.

MARYLAND

BALTIMORE, RDO: DME shutdown until aprxly Sep 17. VOR will be shutdown til aprxly Sep 23 for mod.

CUMBERLAND MUNI ARPT: Extensive glider activity week ends and holidays.

EASTERN MUNI ARPT: Rnwy 4-22 clsd til aprxly Oct. 1.

HAGERSTOWN MUNI ARPT TWR: About Sep 15, ctl twr will be reactivated transmit and receive freq: 118.5, 126.2 123.1. Hrs of opern: 7:30-4:00 lcl time. Operated by: Fairchild Heller Acft Corp.

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200′.

SALISBURY, WICOMICO COUNTY ARPT: Rnwy 4-22 clsd til aprxly Oct. 15.

TOWSON: 10′ balloon ascending 1000′ per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BEDFORD, LAURENCE G. HANSCOM FLD: Moored balloon 5 NM SW of fld, 3000′ AGL hoisted hourly during VFR conditions dalgt hrs til Sep 20. Cable marked with small balloons.

ORANGE MUNI ARPT: Summer operns in efct Apr 1-Dec 15. Use paved areas only. All rnwys open.

WORCHESTER MUNI ARPT: Rnwy 15-33 clsd 1000-2300Z Mon-Sat except when weather below circling minimums until aprxly Oct 31, due constr.

MICHIGAN

CARLETON RDO: Sep 12, DME shutdown until aprxly Sep 27.

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900′ smoke stack 3 mi NW.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200-1800 EST within 1 mi radius of lat 45°58'00''N long 83°47'30''W aprxly 8.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

ESCANABA RDO: VORTAC shutdown until aprxly Sep 27.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000' AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000' AGL.

MARQUETTE RDO: DME inop UFN.

OWOSSO CITY ARPT: Obstn lgts inop on 210' twr lctd 5 mi SE.

SAULT STE MARIE: Daily blasting excp Sun btn hrs of 1500-1630 CST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200'. AGL (3000' MSL.)

MINNESOTA

DULUTH INTL ARPT: Radar portion apch and dptr ctl shutdown for maintenance.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

LITTLE FALLS MUNI ARPT: NW/SE rnwy clsd for constr UFN. Hvy equipment may cross N/S rnwy.

MINNEAPOLIS ARTCC: Radar weather advisory service is available in positive control area within the Minneapolis Center area except E of 91° 0' long. Limited radar service for tfc ctl problem solving is available in the Minneapolis positive control area W of a line from Fargo, N.D. to Sioux Falls, S.D. Mon-Fri from 1000 CST to 2200 CST.

NISSWA, HEYWOOD GULL LAKE ARPT: Clsd UFN.

MISSISSIPPI

HATTIESBURG MUNI ARPT: Rnwys 13-31 and 8-26 clsd until Sep 1966.

MERIDIAN RDO: Sep 26, VOR will be shutdown til aprxly Sep 27. DME shutdown Sep 26 til aprxly Sep 30 for antenna replacement.

MISSOURI

ST. LOUIS, LAMBERT-ST. LOUIS ARPT: Trml radar and associated radar bcn will be shut down Sep 12 til aprxly Sep 17. Only limited radar advisory service avbl.

MONTANA

BAKER MUNI ARPT: Rnwy 7-25 clsd until aprxly Oct 1.

BILLINGS, LOGAN FLD: First 500' rnwy 27 clsd due constrn. 8100' avbl lndg/tkof both directions til aprxly Nov 19.

BUTTE, SILVER BOW COUNTY ARPT: Rnwy 2-20 lgts inop UFN.

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

JORDAN ARPT: Clsd when temperature 90° or higher due oil seepage.

MISSOULA COUNTY ARPT: Rnwy 7-25 E 2534' clsd.

NEBRASKA

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56'50''N, long 98°31'15''W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000' AGL Mon-Fri 1400-2230Z UFN.

OMAHA, EPPLEY AIRFIELD TWR: ILS lclzr and glide slope will be shut down Sep 19 thru Sep 23.

SCOTTSBLUFF RDO; DME shut down Sep 14 thru Sep 16 for mod.

NEVADA

LOVELOCK, DERBY FLD: One or two moored balloons 12' in diameter in enshrouding parachute will be operating about 17 nmi W from 8AM to 9PM local standard time until March 31, 1967. Surface to 6700' MSL or 2500' above test site. Balloons equipped with red flashing lights at ngts.

SPARKS RDO: Rbn shut down til aprxly Oct 14 for class and freq change to HW/254 kc.

WELLS, HARRIET FLD: Rotating bcn inop UFN.

NEW HAMPSHIRE

CLAREMONT MUNI ARPT: Rnwy 11-39 clsd til aprxly Oct 3 due constr.

LANCASTER, GRABOR ARPT: Clsd UFN—constr.

LEBANON, REGIONAL ARPT: Rnwy 18-36 clsd due constr.

NEW JERSEY

ATLANTIC CITY, BADER ARPT: Banner towing operns 1000-dusk til Nov 1.

ATLANTIC CITY, NAFEC/ATLANTIC CITY (POMONA) ARPT: VASI lgts operg intermittently rnwy 13. Not authorized for civil use. Rnwy 4-22 clsd til aprxly Dec 15. Other rnwys clsd when necessary.

LAKEWOOD ARPT: Avoid area of chicken farm lctd on 240° mag brg 6000' from rnwy.

MORRISTOWN MUNI ARPT: Rnwy 5-23 clsd SS-SR except departing pure jets UFN.

OCEAN CITY MUNI ARPT: Open dalgt operns only. No refueling or other services available due constr UFN.

READINGTON, SOLBERG-HUNTERDON ARPT: Rnwys 1-28, 13-31, 14-32 and all grass areas closed.

WILDWOOD, CAPE MAY COUNTY ARPT: Rnwy 10-28 clsd til aprxly Sep 24.

NEW MEXICO

CARLSBAD: An abandoned arpt lctd adj to VOR bldg; strip dangerous—should not be used.

DEMING MUNI ARPT: 1600' rnwy lgts on W end rnwy 8-26 inop. Usable length 8100' day; 6500' ngt.

RUIDOSO MUNI ARPT: 700' high terrain N. Tkofs and Go arounds hazardous on rnwy 36. All tkofs S regardless of winds.

SOCORRO RDO: Sep 27, VOR will be shut down thru Sep 29. DME will be shut down Sep 27 thru Oct 5.

NEW YORK

ALBANY COUNTY ARPT: S 500′ rnwy 1–19 clsd due constr. 4500′ avbl.

ALBANY COUNTY ARPT TWR: ILS lclzr and glide slope shut down til aprxly Nov 15 due rnwy constr.

HORNELL MUNI ARPT: Maintain 2500′ MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

ISLIP, LONG ISLAND-MacARTHUR ARPT: Due constr rnwy 6, ILS glide slope shut down til aprxly Sep 22; neon ladder apch lgt sys inop. Standard apch lgt sys, with sequence flashers will be comsnd June 1, 1967.

ITHACA RDO: Tmpry Rbn operg til aprxly Dec 15. Lctd lat 42°29′21″, long 76°27′38″. Freq: 388 kc. Mag var: 10°W. Class MHW. VOR shut down til aprxly Oct 1.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constrn N end rnwy.

NEW YORK, LA GUARDIA ARPT: Due to constr rnwy 13 lndg and take off length 5971′; rnwy 31 take off length 5971′. Rnwy 13 VASI inop UFN.

NEW YORK, LA GUARDIA ARPT: Restriction for turbojet acft on rnwys 4 and 22 discontinued. Disregard Remarks in AIM, Part 2, Airport Directory.

STORMVILLE ARPT: Constr in progress til aprxly Nov. 16.

SYRACUSE, HANCOCK ARPT: Apch lgt sys rnwy 28 inop til aprxly Oct 3 due rnwy constr.

SYRACUSE, HANCOCK ARPT TWR: ILS glide slope inop til aprxly Oct 3 due rnwy constr.

WHITE PLAINS, WESTCHESTER COUNTY ARPT: Apch lgt sys 2705′ from end rnwy 16.

NORTH CAROLINA

ASHEBORO MUNI ARPT: Clsd til aprxly Jan 25, 1967.

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500′ pattern from the west.

NORTH DAKOTA

BEULAH ARPT: Power line across SE end NW/SE rnwy.

GRAND FORKS INTL ARPT: Constr rnwy 17–35. Threshold displaced first 600′ rnwy 35. REIL inop. Usable length rnwy 35 reduced to 4700′ for lndgs and 5300′ avbl tkofs til aprxly Nov 15.

MINOT, FLYING RANCH ARPT: Lgtg facils inop.

NEWTOWN ARPT: New arpt clsd; under constr.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

CINCINNATI, GREATER CINCINNATI ARPT: Rnwy 18–36 will be clsd Sep 9 til aprxly Sep 22. New rnwy 9R-27L under constr til aprxly Dec 1. Abandoned rnwy 4–22 used as txwy.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constr SE end rnwy 5 until fall 1966.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Tmpry ctl twr lctd W side of fld in opern 0800–1800 EST Sep 21, 22, 23. Ctc Buckeye Twr on 121.3 mc for tfc on and in vcnty of arpt. Additional freqs: 121.7 gnd ctl. 121.5 emgcy; 122.5 rcvg only.

DAYTON, COX DAYTON MUNI ARPT: Constr extending N end rnwy 18–36 in progress for aprxly one year. Rnwy will be clsd intermittently til June 1967.

ST. CLAIRSVILLE, ALDERMAN FLD: Rotating bcn inop.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400–2300 UFN.

OKLAHOMA

FREDERICK MUNI ARPT: Mil jet acft operg in tfc patn dalgt hrs UFN. AAS avbl on 120.8 mc.

HOMINY MUNI ARPT: Clsd til aprxly Sep 30 due constr.

NORMAN, WESTHEIMER FLD: Tmpry ctl twr in opern Sep 17, Oct 22, Nov 5, 12, 24. Freqs: 123.9, 121.5 tsmtg and rcvg. 122.5 rcvg only. Lgt gun signals avbl.

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: Rnwy 17L-35R clsd all operns til aprxly Nov 15.

OREGON

CONDON ARPT: Rotating bcn and rnwy lgts inop UFN.

NORTH BEND ARPT: About 12 nml NNE a moored aluminum colored V shaped balloon 75′ long, approximately 40′ diameter being used in logging operns during dalgt hrs, maximum alt 1000′ MSL. During hrs darkness will be lowered to 100′ AGL.

ONTARIO MUNI ARPT: Rnwy 6–24 clsd UFN.

PENNSYLVANIA

ALTOONA RDO: VORTAC shut down til aprxly Sep 18—major repairs. Tmpry Rbn comsnd during shutdown. Freq 275 kc. Class: MHW.

BUTLER, GRAHAM FLD: Extensive glider operns wkends and occasionally during week. Operns will take place off to side of rnwy UFN.

COATESVILLE, CHESTER COUNTY AREA ARPT: Constr in progress til aprxly Jan 1967.

CONNELLSVILLE ARPT: Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

GREENVILLE MUNI ARPT: Clsd due constr of paved rnwy til aprxly Oct 1.

HAZELTON RDO: RBn inop.

MONOGAHELA, THOMPSON MEML ARPT: Clsd until aprxly Sep 1966 due constr.

MT. POCONO ARPT: First 200′ rnwy 13–31 unusable due rnwy mrkg.

PITTSBURGH. GREATER PITTSBURGH ARPT: First 500′ rnwy 10R clsd due constr til aprxly Oct 15.

TITUSVILLE ARPT: Clsd due constr UFN.

TYRONE RDO: Sep 19, VORTAC will be shut down til aprxly Oct 5.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000′ from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.-Thornhurst-Wilkes-Barre.

YORK ARPT: Auto racing rnwy 16–34 Sats 1500–2400 lcl time til Sep 24. Unicom ctc required to clear rnwy.

SOUTH CAROLINA

GREENVILLE, DOWNTOWN MUNI ARPT: Rnwy 36 threshold displaced 1800′ N; rnwy 18 clsd lndg and tkof dalgt hrs. Rnwy 36 tkof only dalgt hrs Mon-Fri.

MONCKS CORNER MUNI ARPT: Clsd due constr UFN.

SOUTH DAKOTA

HURON, HOWES MUNI ARPT: N/S rnwy clsd due constr til aprxly Nov 1.

PIERRE MUNI ARPT: Rnwy 17-35 clsd from int rnwy 12-30 to S end; 5000′ avbl; clsd to acft over 10,000 lbs. Rnwy lgts inop. Rnwy 7-25 clsd acft over 50,000 lbs.

REDFIELD ARPT INC: Clsd til aprxly Oct 1.

SIOUX FALLS RDO: DME will be shut down Sep 26 til aprxly Sep 30 for mod.

TENNESSEE

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constr.

HALL, LAUDERDALE COUNTY ARPT: Abandoned arpt 1 mi NW. Unmrkd and extremely hazardous—not to be used for lndgs or tkofs.

KNOXVILLE, McGHEE TYSON ARPT: Rnwy 18-36 clsd ngts.

LEWISBURG, ELLINGTON ARPT: Rotating Bcn inop UFN.

ROGERSVILLE, STIPES STRIP: Clsd UFN.

TEXAS

BEEVILLE, CHASE (NAAS) FLD: Rnwy 13R-31L clsd til aprxly Oct due constr.

BROWNWOOD MUNI ARPT: Rnwy 17-35 clsd UFN.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

ELMDALE ARPK: New arpt clsd to all operns. Under constr 3 mi NE Abilene Muni Arpt.

FAIRFIELD, WATSON ARPT: Rnwy lgts inop UFN.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1-19 clsd UFN.

NEW BRAUNFELS, CLEAR SPRING AUX ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs.

SAN ANTONIO INTL ARPT: Extensive constr thru Sep 27.

SAN ANTONIO INTL ARPT TWR: ILS (rnwy 3) shut down UFN due rnwy constrn.

SULPHUR SPRINGS MUNI ARPT: Bcn and rnwy lgts inop UFN.

WICHITA FALLS, SHEPPARD AFB/WICHITA FALLS AIR TRML: N 3000′ rnwy 17-35 clsd.

UTAH

DELTA MUNI ARPT: Lgts on both rnwys inop UFN.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100′ higher than canyon rim.

KANAB MUNI ARPT: Clsd UFN.

VIRGINIA

ALEXANDRIA, WASHINGTON-VIRGINIA ARPT: Runway 12-30 clsd intermittenly UFN due constr. Arpt clsd ngt operns.

CHARLOTTESVILLE-ALBEMARLE ARPT: Constr in progress til aprxly Oct 18. Rnwy 3 threshold tmprly displaced 400′ NE. Tmprly lgtd SS-SR. Strobe, REIL inop. Ctc FSS prior to lndg.

CHARLOTTESVILLE-ALBEMARLE ARPT: ILS lclzr inop intermittently due rnwy constr.

CLIFDALE RDO: VOR unusable beyond 30 nmi and above 18,000′ til aprxly March 31, 1967.

DUBLIN, NEW RIVER VALLEY ARPT: First 200′ rnwy 23 unusable due rnwy extension in progress UFN.

FELKER RDO: VOR unusable excp for VFR practice use UFN.

GORDONSVILLE MUNI ARPT: Rotating bcn inop UFN.

WASHINGTON

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800-1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

YAKIMA MUNI ARPT: Apch lgt sys rnwy 27 inop Sep 19 til aprxly Oct 7.

WEST VIRGINIA

HUNTINGTON RDO: Rbn inop UFN.

WHITE SULPHUR SPRINGS, GREENBRIER ARPT: Hazardous ridge across rnwy, 200′ from apch end rnwy 26. Touchdown on this ridge prohibited.

WISCONSIN

BEAVER DAM ARPT: Unsafe for lndg due rufness sod UFN.

GREEN BAY, AUSTIN STRAUBEL ARPT: Until aprxly Dec 1, constr NE end rnwy 6-24. NE 400′ clsd; 4800′ avbl.

GREEN BAY, AUSTIN STRAUBEL ARPT TWR: ILS lclzr and glide slope shutdown til aprxly Oct 31 for relctn.

LACROSSE RDO. MHW shut down UFN.

MILWAUKEE RDO: DME shut down Sep 12 thru Sep 16.

WYOMING

BOYSEN RESERVOIR RDO: DME will be shut down Sep 26 til aprxly Sep 30. VOR will be shut down dalgt hrs only Sep 27 thru Sep 29.

CODY MUNI ARPT: Rnwy 9-27 clsd occasionally due parked acft til aprxly Oct.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

SHERIDAN RDO: VORTAC inop til aprxly Sep 16.

VIRGIN ISLANDS

CHARLOTTE AMALIE-ST. THOMAS, HARRY S TRUMAN ARPT: Til Oct 15, constr work in progress lengthening rnwy. Vehicles operg in apch to rnwy 9 and on N edge and E end rnwy 27. Areas mrkd and lgtd.

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

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OCT1 7 1966
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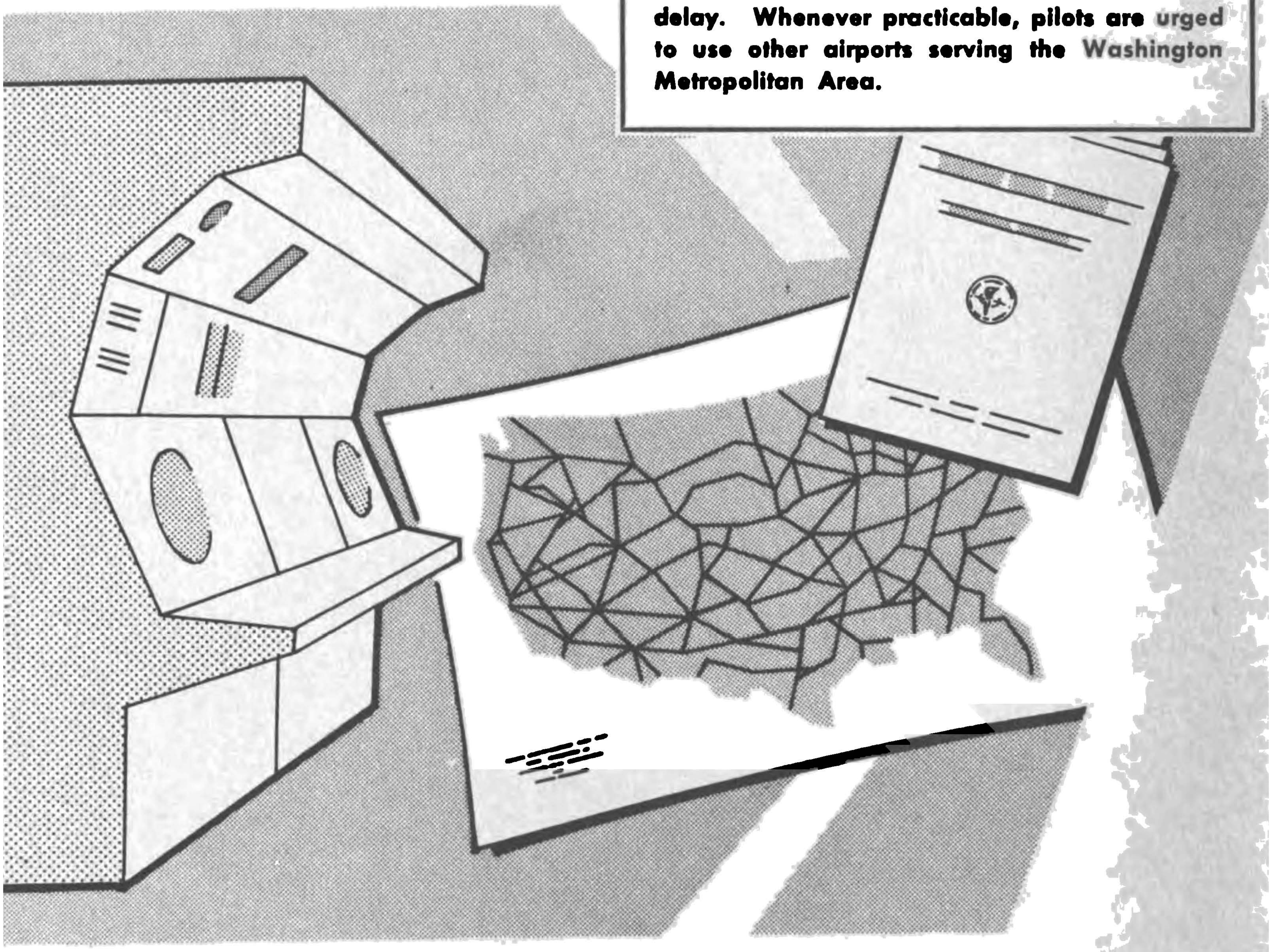
PART 3

WASHINGTON NATIONAL AIRPORT

Delays may be encountered at Washington National Airport due to serious congestion of passenger, parking and ground facilities. The Federal Aviation Agency asks the cooperation of all pilots in reducing this congestion and delay. Whenever practicable, pilots are urged to use other airports serving the Washington Metropolitan Area.



Effective
13 OCTOBER 1966
To 10 NOVEMBER 1966

OPERATIONAL DATA AND NOTICES TO AIRMEN

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AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot ● prefixing the heading, paragraph, or line. Highlights of each part are described below.

PART 1

Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PART 2

Airport Directory

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are available for transient civil use. It includes all of their facilities and services, *except communications*, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities.

Included, also, is a list of selected Commercial Broadcast Stations of 100 watts or more of power.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PARTS 3 AND 3A

Operational Data and Notices to Airmen

Part 3 is issued every 28 days and contains a Master Alphabetical Index covering all Parts of the AIM; an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Parachute Jump Areas; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Restrictions to Enroute Navigation Aids; VOR Receiver Check Points; Special General and Area Notices; New and Permanently Closed Airports, and Oil Burner Routes.

Part 3A is issued every 14 days and contains Notices to Airmen considered essential to the safety of flight as well as supplemental data to Part 3.

Annual subscription price $9.00. (Foreign mailing, $2.25 additional.)

These publications are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT–430, Washington, D.C. 20553.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

Abbreviations ---------- 3-v
Address, Change of (See Notice of Editor) ---------- 3-57
Airport/Facility Directory Legend ---------- 3-vii
Airport/Facility Directory ---------- 3-1
Airports, New and Permanently Closed ---------- 3-122
Air Route Traffic Control Center Communications Frequency ---------- 3-46
Boeing Low Level IFR Operations ---------- 3-126
Chicago Terminal Area Chart ---------- 3-119
Dates of Latest Editions (Aeronautical Charts) ---------- 3-149
DME at ILS Locations ---------- 3-105
Expanded Radar Service for Arriving and Departing Flights ---------- 3-120
Flight Information Publication Policy ---------- 3-101
FSS and Weather Bureau Telephone Numbers ---------- 3-48
Low Altitude VFR Military Operations ---------- 3-126
Master Alphabetical Index ---------- 3-i
Military Aerial Refueling Tracks ---------- 3-125
Notices to Airmen ---------- See Part 3-A
Notice to Editor ---------- 3-57
Oil Burner Routes ---------- 3-128
Parachute Jumping Areas ---------- 3-60
Part-time Controlled Airspace Designation ---------- 3-104
Part-time Manned Facilities and AIDS ---------- 3-106
Preferred Routes ---------- 3-66
Publication Schedule ---------- 3-59
Radio Class Designation ---------- 3-x
Restrictions to Enroute Navigation Aids ---------- 3-86
Runway Gradient ---------- 3-107
Sectional Chart Bulletin ---------- 3-80
Special Notices ---------- 3-101
    General (Notices with universal application) ---------- 3-101
    Area Notices (by state, city, etc.) ---------- 3-108
Special Use Airspace ---------- 3-125
Standard Instrument Approach Procedures Actions ---------- 3-146
Standard Instrument Departures (SIDs) ---------- 3-73
Substitute Route Structure ---------- 3-76
Use of VASI ---------- 3-107
VOR Receiver Check Points ---------- 3-95

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetical Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. Reference involving emergency activities or procedures is printed in bold-face type. The Part number is in bold type.

A

Part and Page

Abbreviations 3-v
Address, Change of (See Notice to Editor) 3-57
ADIZ and Designation Mountainous Areas Chart 1-85
ADIZ Procedures 1-83
Advisory Information, VFR 1-72
Advisory Service, Jet 1-58
Aeronautical Advisory Stations (UNICOM) 1-74
Aeronautical (Light) Beacons 1-17
Aeronautical charts, Dates of Latest 3-149
Aeronautical Information and the National Airspace System 1-24
Aeronautical Multicom Service 1-74
Aeronautical Publications 1-48
Aeronautical Terms, Glossary of 1- 1
(AID), Airport Information Desk 3-106
AIM Publication Schedule 3-59
Aircraft Call Signs 1-21
Aircraft Fuel 2, 3
Aircraft Storage/Repair 2, 3
AIRMETS and SIGMETS 1-32
Air Navigation Radio Aids 1- 7
Airport Advisory Service (Non-Radar) 1-72
Airport, Air Navigation Lighting and Marking Aids 1-17
Airport Directory 2-1
Airport Elevation 2, 3
Airport/Facility Directory 3- 1
Airport Identifying Code 1-18
Airport, IFR 2 & 3
Airport Information Desk (AID) 3-106
Airport, Lighted Land 1-17
Airport, Lighted Water 1-17
Airport Lighting Facilities 1-17, 2 & 3
Airport Marking Aids 1-19
Airport, Military (Lighting) 1-18
Airports of Entry 1-81, 2 & 3
Airport Runway Data 2, 3
Airports, New and Permanently Closed 3-122
Air Rescue Centers 1-91
Air Traffic Control Radar Beacon System (ATCRBS) 1-16, 1-62
Airway Beacons 1-18
Airway/Route Systems 1-57
Airway/Route Course Changes 1-58
Alcohol 1-41
Altimetry 1-30
Altitudes, Traffic Pattern 2
ANRA 1-7, 3-1
Alphabet, Phonetic 1-23
Approach Control 1-74
Approach Light System, Instrument 1-18
Approach Procedures Actions, Instrument 3-146
Area Notices 3-108
Arrival 1-72
ARTCC Communications Frequencies 3-46
ATC Clearance 1-54

Part and Page

(ATIS) Automatic Terminal Information Service 1-72, 3
Auxiliary Lights 1-17

B

Beacon, Airway 1-18
Beacon, Aeronautical (Light) 1-17
Beacon, Marker 1-10
Beacon Operation, Daylight 1-18
Beacon, Radio 1- 7
Beacon, Rotating 1-17
Beacon, Standards (deviations from) 1-18
Bird Hazards 1-44
Broadcast Stations, Commercial 2-225
Bulletin, Sectional Chart 3-80

C

Call Signs, Aircraft 1-21
Call Signs, Ground Stations 1-21
Carbon Monoxide 1-42
Ceiling 1-1, 1-33
Change of Address (Notice to Editors) 3-57
Changeover Points (VOR) 1-64
Chart Bulletin, Sectional 3-80
Charts, Dates of Latest Prints 3-149
Chart, Oil Burner Route 3-128
Chart, ADIZ and Mountainous Area 1-85
Civil Use of Military Fields 3-102
Class of VOR/VORTAC/TACAN 1-9
Clear Air Turbulance 1-33
Clearance, ATC 1-54
Climbing/Descending Aircraft 1-65
Cloud Heights, Reporting of 1-33
Code, NOTAM 1-25
Collision Reporting, Near Mid-Air 1-40
Commercial Broadcast Stations 2-225
Communications, Direct Pilot/Controller 1-69
Communications, Enroute 1-66
Communications Failure 1-92
Communications Frequencies, ARTCC 3-46
Compass Locator, ILS 1-11
Composite Flight Plan (VFR/IFR) 1-49
Consolan 1-14
Contact Procedure, Radio Telephone 1-21
Continental Control Area 1-58
Crash Locator Beacon 1-90
Cruising Altitudes, Enroute 1-71

D

Departure 1-53
Departure Communications 1-53
Departure Control 1-56
Departure, Standard Instrument (SID) 1-55, 3-73
Designated Mountainous Areas chart and ADIZ 1-85
Designation, Radio Class 3-x
Detouring Thunderstorms 1-36
Direct Communications, Controllers/Pilots 1-69
Direct Flights 1-51

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Direction Finder (VHF/UHF) 1-14
Directional Reporting 1-64
Distance Measuring Equipment (DME) 1- 8
Drugs 1-41

E

Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1- 89
Emergency Signals (Visual) 1-95
Enroute 1-57
Enroute Communications 1-66
Enroute Cruising Altitudes 1-71
Entry and Departure Requirements, U.S 1-80
Expanded Radar Service for Arriving and Departing Flights 1-73, 3-120

F

FAA and NORAD Chart 1-88
Fatigue 1-41
Figures 1-22
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-101
Flight Information Publication Policy 3-101
Flight Service Stations/Weather Bureau Offices 3-48
Flight Standard District Offices 1-96
Frequency Pairing Plan 1- 9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-93

G

General Notices 3-101
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1- 1
Good Operating Practices 1- 5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H

Hand Signals 1-79
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-217
Holding 1-60
Hypoxia 1-41

I

IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-75
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-146
Instrument Departures (SID's), Standard 1-55, 3-73
Instrument Runway 1-20
Interception Pattern for Identification of Transport Aircraft 1-87
Interception Signals, U.S 1-86

J

Jet Advisory Service 1-58

K

Key to Aviation Weather Reports 1-36

Part and Page

L

Lake, Island and Mountain Reporting Service 1-66
Landing 1-78
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-78
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-126

M

Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-79
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-125
Mountainous Area Chart and ADIZ 1-85

N

National Search and Rescue Plan 1-90
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-122
NORAD Chart, FAA and 1-88
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-57
Notices, Area 3-108
Notices, Special 3-101
Notices to Airmen 3A

O

Oil Burner Routes 3-128
Omnidirectional Range (VOR) 1-7

P

Panic 1-43
Parachute Jumping Areas 3-60
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-104
Part-time Manned Facilities and AIDS 3-106
Permanently Closed Airports, New and 3-122
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-66
Positive Control Area 1-58
Precision Approach, Radar 1-15
Preferred Routes 3-66
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-101
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-59

R

Radar 1-15
Radar Assistance to VFR Aircraft 1-65
Radar Beacon System (ATCRBS) 1-62
Radar Controlled Approaches 1-15
Radar Enroute Service 1-59
Radar Monitoring of Instrument Approaches 1-76
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-73
Radio Beacon 1- 7
Radio Class Designation 3-x
Radio Communications Failure 1-92

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radio Interference 1-14
Radio Range L/MF 1- 7
Radiotelephone Phraseology and Techniques 1-21
Receiver Check Points, VOR 1-8, 3-93
Refueling Tracks, Military Low Altitude Aerial 3-125
REIL, Runway End Identifiers 1-19, 2, 3
Repair, Aircraft 2, 3
Reporting, Directional 1-64
Reporting Service, Lake, Island and Mountain 1-66
Restricted Airspace 1-65
Restrictions to Enroute Navigation Aids 3-86
Rocky Mountain Reporting Service 1-68
Rotating Beacon 1-17
Runway End Identifiers (REIL) 1-19, 2, 3
Runway, Longest 2, 3
Runway Marking 1-19
Runway Surface 2, 3
Runway Visibility (RVV) 1-34
Runway Visual Range (RVR) 1-34
Runway Weight Bearing Capacity 2, 3

S

Safety of Flight (Wake Turbulence) 1-37
SCANTANA Procedures 1-83
Scheduled Weather Broadcasts 1-31
Scuba Diving 1-43
Seaplane Bases 2-212
Search and Rescue 1-90
Sectional Chart Bulletin 3-80
Sectional Charts, Dates of latest prints 3-149
SIDs (Standard Instrument Departures) 1-55, 3-73
SIGMET (Significant Meteorology), AIRMETS 1-32
Signals, Emergency 1-94
Signals, (Visual), **Emergency** 1-95
Signals, Light 1-53
Simultaneous Voice Transmissions from a Single Location 1-12
Special Notices 3-101
Special Use Airspace 1-70, 3-125
Special VFR Flight Clearance Procedures 1-54
Speed Adjustment of Arriving Aircraft 1-77
Standard Instrument Approach Procedures Actions 3-146
Standard Instrument Departures (SIDs) 1-55, 3-73
Storage, Aircraft 2, 3
Substitute Route Structure 3-76
Surveillance Radar 1-15

Part and Page

T

TACAN 1- 8
Terminal Radar Service 1-74
Thunderstorms 1-36
Time 1-22
Traffic Information Service, Radar 1-73
Traffic Pattern Altitudes 2
Traffic Pattern Direction, Landing 1-78
Transcribed Weather Broadcasts 1-31
Turbulence, Clear Air (CAT) 1-33
Turbulence, Wake 1-37
Two-Way Radio Communications Failure 1-92

U

UNICOM (Aeronautical Advisory Station) .... 1-74, 2, & 3
U.S. Entry and Departure Requirements 1-80

V

VASI (Visual Approach Slope Indicator) 1-19
Vertigo 1-42
VFR Advisory Information 1-72
VFR Conditions on Top 1-51
VFR Flight Clearance Procedures 1-55
VHF UHF Direction Finder 1-14, 3
Visibility, Observations 1-34
Vision 1-42
Visual Approach Slope Indicator (VASI) 1-19
VOR 1- 7
VOR Changeover Points 1-64
VOR Receiver Check Points 1-8, 3-93
VORTAC 1- 8
VOT (VOR Test Signal) 1-8, 3

W

Wake Turbulence 1-37
Warning Areas 1-70
Weather 1-31
Weather Briefing 1-49
Weather Broadcasts Format 1-32
Weather Broadcast, Scheduled 1-31
Weather Broadcast, Transcribed 1-31
Weather Broadcast, Unscheduled 1-32
Weather Bureau Offices/Flight Service Stations 3-48
Weather Radar 1-34
Weather Advisories, In-Flight 1-32

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in additionto frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
Cl	Control Tower (City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense Visual Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	groundcontrolled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend or Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical radiators), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum en-route IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

ABBREVIATIONS

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment
	visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmission.
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omnidirectional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omnidirectional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (−) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, clay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S-000).

S-Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC-3), etc.

T-Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC-6), etc.

TT-Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T-).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

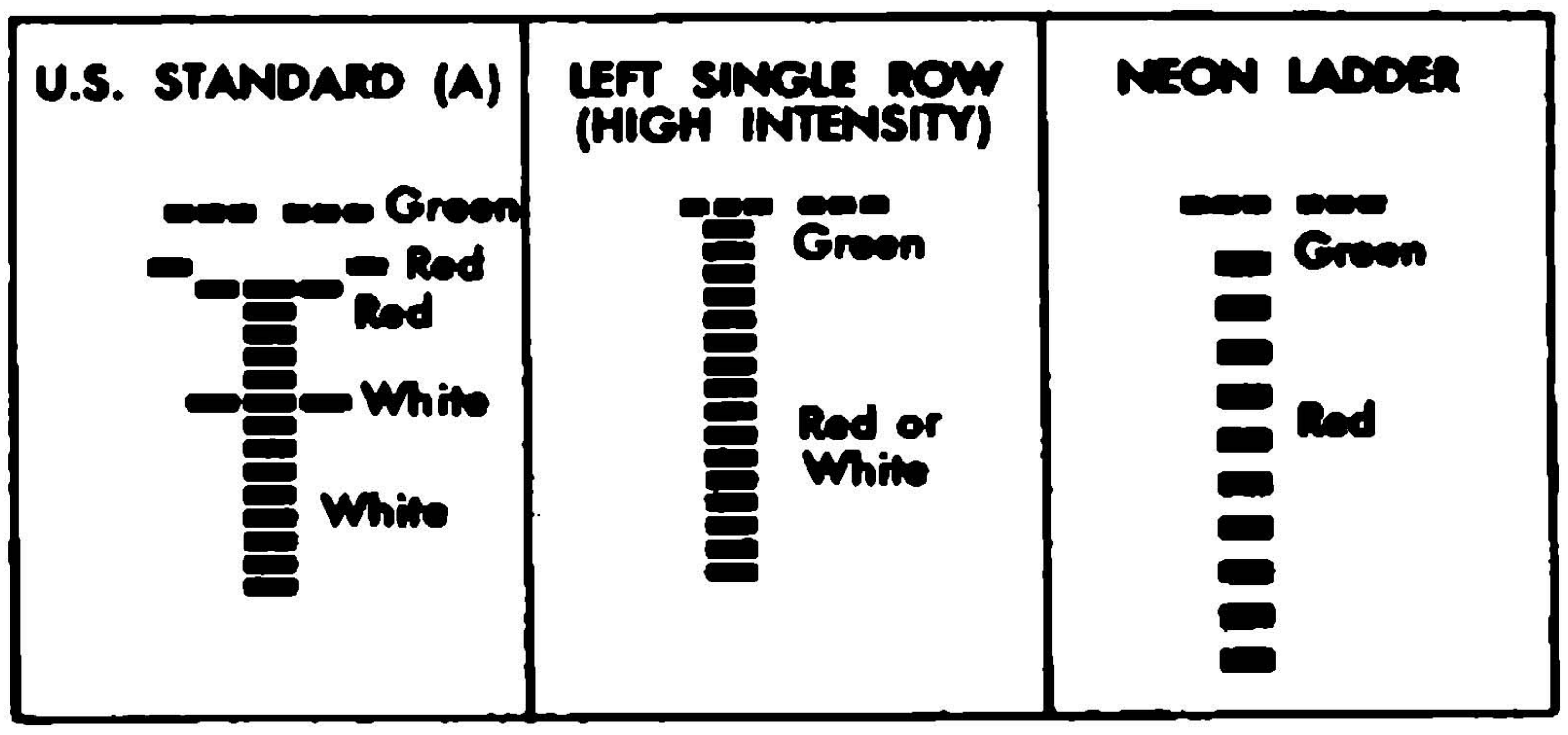
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting. An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000' out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)
13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.

S2: Storage, minor airframe repairs.

S3: Storage, minor airframe and minor powerplant repairs.

S4: Storage, major airframe and minor powerplant repairs.

S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	80 oct., at least.
F2	80/87 oct., or lower.
F3	91/96 oct., or lower.
F4	100/130 performance rating, or lower.
F5	115/145 performance rating, or lower.

TURBINE FUELS

TP–1	650 turbine fuels for civil jets.
JP–1	(Kerosene), **JP–3, JP–4, JP–5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25–September 26 and April 25–October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.

VASI—Visual Approach Slope Indicator, applicable runway provided.

RVV—Runway Visibility Values, applicable runway provided.

RVR—Runway Visual Range, applicable runway provided.

FSS—The name of the associated FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481–5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"FEE" indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"Rgt tfc 13–31" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a cross-out: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

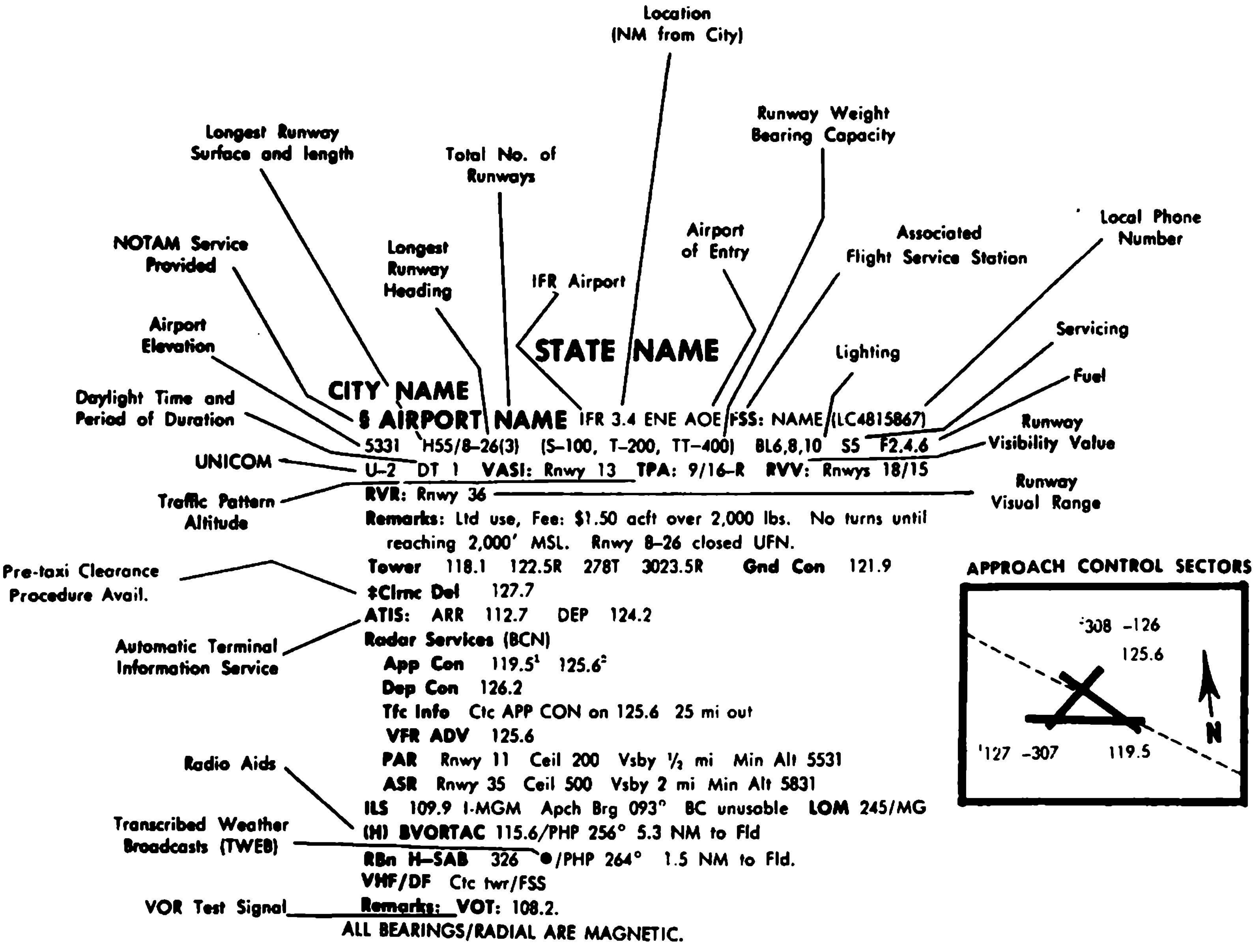
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U-1—122.8 mc (at airports without a control tower).

U-2—123.0 mc (at airports with a control tower).

SAMPLE


Location
(NM from City)
Runway Weight
Bearing Capacity
Longest Runway
Surface and length
Total No. of
Runways
Local Phone
Number
NOTAM Service
Provided
Longest
Runway
Heading
Airport
of Entry
Associated
Flight Service Station
IFR Airport
Airport
Elevation
Servicing
Lighting
Fuel
Daylight Time and
Period of Duration
Runway
Visibility Value
UNICOM
Runway
Visual Range
Traffic Pattern
Altitude
Pre-taxi Clearance
Procedure Avail.
APPROACH CONTROL SECTORS
308 -126
125.6
N
127 -307
119.5
Automatic Terminal
Information Service
Radio Aids
Transcribed Weather
Broadcasts (TWEB)
VOR Test Signal

STATE NAME

CITY NAME

§ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC4815867)
5331 H55/8-26(3) (S-100, T-200, TT-400) BL6,8,10 S5 F2,4,6
U-2 DT 1 **VASI:** Rnwy 13 **TPA:** 9/16-R **RVV:** Rnwys 18/15
RVR: Rnwy 36
Remarks: Ltd use, Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000′ MSL. Rnwy 8-26 closed UFN.
Tower 118.1 122.5R 278T 3023.5R **Gnd Con** 121.9
‡Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
App Con 119.5^1 125.6^2
Dep Con 126.2
Tfc Info Ctc APP CON on 125.6 25 mi out
VFR ADV 125.6
PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° BC unusable **LOM** 245/MG
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H-SAB 326 ●/PHP 264° 1.5 NM to Fld.
VHF/DF Ctc twr/FSS
Remarks: VOT: 108.2.

ALL BEARINGS/RADIAL ARE MAGNETIC.

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000' MSL	115.2 smi (100 nmi)
L	Up to 18,000' MSL	46.06 smi (40 nmi)
T	Up to 12,000' MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

NOTE: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiators), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600–2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

ALABAMA

ANNISTON (L) BVOR 108.8/ANB FSS: ANNISTON
RBn BMH [1]278/ANB
Remarks: [1]For use within 10 mi stn ADF apch only.

§BIRMINGHAM MUNI *IFR* 4NE FSS: BIRMINGHAM on fld
643 H92/5-23(2) (S-120, T-170, TT-300) BL6,8A,9,10 S5
F5, JPI, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Jet barrier on overrun rnwy 23. Rnwy 23 threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I-BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) BVORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H-SAB 224●/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H-SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM FSS: MOBILE

BROOKWOOD (L) BVOR 111.0/BWA FSS: BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU FSS: HUNTSVILLE

§DOTHAN *IFR* 7NW FSS: DOTHAN on fld
395 H56/18-36(3) (S-60, T-105, TT-190) BL6 S5 F4 U-1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
VFR ADV: Ctc Cairns APP/DEP CON
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF Ctc FSS.

EUFAULA (L) BVOR 109.2/EUF FSS: DOTHAN

GADSDEN (L) BVORTAC 112.3/GAD FSS: ANNISTON

HAMILTON (L) BVOR 110.4/HAB FSS: MUSCLE SHOALS

§HUNTSVILLE-MADISON *IFR* 3S FSS: MUSCLE SHOALS (DL)
619 H52/18-36 (2) (S-50, T-85, TT-130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I-HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF

MOBILE
§BATES FLD *IFR* 9W FSS: MOBILE on Fld
217 H78/14-32(3) (S-40, T-150, TT-280) BL4,6,8A,9 S5
F5 JP1, U2 **RVV** Rnwy 14
Remarks: U.S. Customs lndg rgts arpt. Threshold displaced 1000′ NW runway 32.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I-MOB Apch Brg 141° BC unusable **LOM:** 248/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn BH 248/MO 140° 4.6NM to fld.

ALABAMA—*Continued*

Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090-110° rad. LOM is BH.

MONROEVILLE (L) BVOR 116.8/MVC FSS: MOBILE

MONTGOMERY
§DANNELLY FLD *IFR* 6SW FSS: MONTGOMERY on Fld
221 H90/9-27(3) (S-120, T-170), TT-300) BL4,6,8A,9 S5
F5 JP1 U2 **RVR:** Rnwy 9
Remarks: J-Bar runwy 9-27. Closed to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel. Rnwy 15-33 restricted to acft 12,500 lbs or less.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I-MGM Apch Brg 093° **LOM** 245/MG
VHF/DF Ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL **FSS:** MUSCLE SHOALS

REDSTONE (L) VOR 111.2/HUA
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM

TUSCALOOSA (L) BVORTAC 117.8/TCL **FSS:** TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE **FSS:** MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK **FSS:** PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG **FSS:** PHOENIX

COCHISE (L) BVORTAC 110.4/CIE **FSS:** DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG **FSS:** DOUGLAS

FLAGSTAFF (L) BVOR 108.2/FLG **FSS:** PRESCOTT

GILA BEND (H) BVORTAC 116.6/GBN **FSS:** PHOENIX

GRAND CANYON (L) BVOR 109.0/GCN **FSS:** PRESCOTT

LIBBY (L) VOR 111.6/FHU

PEACH SPRINGS (H) BVORTAC 112.0/PGS **FSS:** PRESCOTT

PHOENIX
§SKY HARBOR MUNI *IFR* 3E **FSS:** PHOENIX on Fld
1122 H103/8R-26L(2) (S-100, T-200, TT-370) BL4,10 S5
F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R-26L avbl ngts. Rgt tfc rnwys 8R, 26R.
Phoenix Tower 118.7[1] 122.5R 120.9[2] **Gnd Con** 121.9
Clrnc Del 121.9
ATIS: 120.4
Radar Services:
Phoenix App Con 119.2[3] 124.1[4] 115.6T
Phoenix Dep Con 118.1[3] 120.7[4]
Phoenix (H) BVORTAC 115.6/PHX 256° 5.3 NM to fld.
Phoenix RBn BH 326/PHX 264° 1.5NM to fld.
VHF/DF Ctc FSS.
Remarks: VOT: 109.0 [1]Rnwy 8L-26R [2]Rnwy 8R-26L [3]265-065° [4]066-264°

PRESCOTT (H) BVORTAC 114.1/PRC **FSS:** PRESCOTT

ST. JOHNS (H) BVORTAC 112.3/SJN **FSS:** ZUNI

ARIZONA—*Continued*

SAN SIMON (H) BVORTAC 115.4/SSO **FSS:** DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC **FSS:** PRESCOTT

§TUCSON INTL *IFR* 6S AOE **FSS:** TUCSON on Fld
2630 H120/12L–30R(3) (S–100, T–200, TT–360) BL4 S5
F5, JP1, JP4 U2
Remarks: 5649′ avbl lndg rnwy 3, 6000′ avbl rnwy 21. Jet arresting gear rnwy 12L–30R. 1000′ overrun each end rnwy 12L–30R.
Tower: 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.5 134.1 126.2 125.9 125.1 122.5R
Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.
ASR Rnwy 30 Ceil 400 Vsby 1 mi Min Alt 3030.
VHF/DF[1] Ctc FSS.
(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.
RBn H–SABZ 338●/TUS 083° 10.6NM to fld.
Remarks: [1] Unusable beyond 40 NM below 13,500′ MSL 345–070° below 12,500′ MSL 070–090°.

WINSLOW (H) BVORTAC 112.6/INW **FSS:** PRESCOTT
RBn H–SAB 266●/INW

§YUMA MCAS/INTL *IFR* 3S AOE **FSS:** YUMA on Fld
213 H133 (3L–21R)(4) (S–103, T–225, TT–410) BL4,6 S5 F4
Remarks: Rnwy 17–35 GWT (S–170, T–200, TT–400). Jet arresting gear rnwys 3L–21R, 3R–21L.
Tower 126.2 121.5 122.5R 119.3 **Gnd Con:** 121.9
VHF/DF Ctc twr.
(H) BVORTAC 116.8/YUM 167° 6.0NM to fld.
RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH
RBn HW 311/BYH

BRUINS RBn MHW 215/BSA **FSS:** MEMPHIS

CABOT (L) VOR 108.4/CBT
RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT **FSS:** EL DORADO

DRAKE (T) BVOR 108.8/DAK **FSS:** FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD **FSS:** EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV **FSS:** FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP **FSS:** HARRISON

§FORT SMITH MUNI *IFR* 4SE **FSS:** FORT SMITH on Fld
468 H80/7–25(2) (S–90, T–120, TT–) BL4,6,8A,9 S5
F–5, JP–1 U2 **RVV:** Rnwy 25
Remarks: Jet barrier rnwy 7–25.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 125.4 126.2 118.3 110.4T 109.5T
ILS 109.5 I–FSM Apch Brg 254° BC unusable **LOM:** 223/FS
(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.
RBn H–SAB 223●/FS 254° 6.9NM to fld.
Remarks: LOM is H–SAB.

HARRISON (L) BVOR 110.8/HRO **FSS:** HARRISON

HOT SPRINGS
§MEMORIAL FLD *IFR* 3SW **FSS:** PINE BLUFF (LC NA 4–4481)
535 H50/5–23(2) (S–35, T–49, TT–78) BL4 S5 F4 JP–1
Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7
Hot Springs App Con 120.3 122.5R 110.0T 248T
Hot Springs (L) VOR 110.0/HOT on fld.
Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK
§ADAMS FLD *IFR* 2E **FSS:** PINE BLUFF (LC FR 6–4348)
257 H70/4–22(3) (S–49, T–173, TT–136) BL4,6,8A,9 S5
F4, JP1, JP4 U2 **RVV:** Rnwy 4

ARKANSAS—*Continued*

Remarks Fee civil acft over 10,000 lbs.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
ATIS[3]: 113.9
Radar Services: (BCN)
Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T
Little Rock Dep Con 118.1
Tfc Info All inbnd acft ctc App Con 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I–LIT Apch Brg 041° **LOM:** 219/LI
Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.
Little Rock RBn H–SAB 353●/LIT 316X 3.3NM to rnwy 32.
Remarks: [1]001–180° [2]181–360 [3]Opers 1300–0400Z.

MONTICELLO (L) BVORTAC 111.6/MON **FSS:** PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF **FSS:** PINE BLUFF

ROGERS RBn MHW 263/ROG **FSS:** FAYETTEVILLE

STUTTGART RBn MHW 269/SGT **FSS:** PINE BLUFF
Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK **FSS:** TEXARKANA
RBn SBH 329/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG **FSS:** WALNUT RIDGE

CALIFORNIA

ARCATA
§ARCATA-EUREKA *IFR* 7NW **FSS:** ARCATA on Fld
217 H60(2)(13–31) (S–90, T–140, TT–260) BL5,6,8A,9,10 F4 DT2
VASI: Rnwy 13 **RVV:** Rnwy 31
Remarks: Rgt tfc rnwys 13, 19.
ILS 109.5 I–ACV Apch Brg 314° BC unusable **LMM:** 233/CV
VHF/DF Ctc FSS.
Remarks: SLMM unusable btn 120–150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE **FSS:** PASO ROBLES

BAKERSFIELD
§MEADOWS FIELD *IFR* 4NW **FSS:** BAKERSFIELD on Fld
488 H57/12L–30R(2) (S–110, T–170, TT–300) BL4,6,8A,9
S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R
Tower 118.1 122.5R **Gnd Con** 121.9
Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8
ILS 109.9 I–BFL Apch Brg 299° **LOM:** 278/BF
VHF/DF Ctc FSS.
Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR **FSS:** SALINAS

BLYTHE (H) BVORTAC 117.4/BLH **FSS:** BLYTHE
RBn SABH 251●/BLH

BURBANK
§LOCKHEED AIR TERMINAL *IFR* 3NW **FSS:** LOS ANGELES (DL)
775 H69 (15–33)(2) (S–80, T–150, TT–280) BL5,6,8A,9,11
S5 F5, JP1, JP4 U2 DT2 **REIL** rnwy 15
Remarks: Rnwy 15 displaced threshold 900′. S 6060′ avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ lndg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15–33 lgtd N of rnwy 7–25 only.
Burbank Tower 118.7 122.7R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
Tfc Info Ctc Burbank App Con 30 NM out on 120.9.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS[2] 109.5 I–BUR Apch Brg 076° **LOM:** 272/BU
VHF/DF[1] Ctc twr.
Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°–085°; below 4000′ 085°–240°; below 6000′ 240°–320°; below 10,000′ 320–360°. [2]Glide slope unusable below 1075′ MSL.

CALIFORNIA—*Continued*

CAMARILLO RBn HW 359/CAV **FSS:** LOS ANGELES

CASTLE (L) VOR 114.2/MER
RBn MHW 409/ME

CHICO (T) BVOR 109.8/CIC **FSS:** RED BLUFF

COLTON RBn HWZ 397/SB

CONCORD
§BUCHANAN FIELD *IFR* 1N **FSS:** OAKLAND (DL)
19 H50/1-19(3) (S-60, T-80, TT-130) BL5 S5 DT2 F4
Tower[1] 119.7 122.4R **Gnd Con** 121.9
Radar Services:
Travis App Con 119.9
T-BVOR 110.6/CCR 171° 3.1 NM to fld.
Remarks: [1]Oper 1500-0700Z.

CRESCENT CITY (L) BVORTAC 109.0/CEC **FSS:** CRESCENT CITY

CULVER CITY
HUGHES 3SW **FSS:** LOS ANGELES (DL)
22 H88(1) L4 S3 F4 **REIL:** Rnwy 23
Remarks: Fee. Clsd trans acft ofl bus, prior notification reqrd. Ctc 132.4 for rnwy lgts.
Tower:[1] 132.4 126.2 123.1 122.5R
Remarks: [1]Oper 1600-0145Z

DAGGETT (L) BVORTAC 113.2/DAG **FSS:** DAGGETT

DOWNEY RBn HW 371/DOW **FSS:** LOS ANGELES

EDWARDS (L) VORW 116.4/EDW
RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ
RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW **FSS:** BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM **FSS:** LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS **FSS:** MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT **FSS:** ARCATA

§FRESNO AIR TERMINAL *IFR* 5 NE **FSS:** FRESNO on Fld
332 H92/11L-29R(3) (S-50, T-70, TT-140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.
Remarks: Rgt tfc rnwy 7 & 11. Jet barrier arresting gear 11L-29R.
Tower 118.7 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.6 126.9
Dep Con 126.9
ILS 110.3 I-FAT Apch Brg 289° **LOM:** 266/FA
VHF/DF Ctc FSS.
(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.
RBn H-SAB 344●/FAT 049° 6.2 NM to fld.

§FRESNO-CHANDLER *IFR* 2W **FSS:** FRESNO (DL)
283 H35/11R-29L(2) (S-17 T-TT-) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 11R. Rnwy 29L threshold displaced 730′ NW, rnwy 11R displaced 495′ SE.
Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7
Radar Services: (BCN)
Fresno App Con 119.6 126.9
Fresno Dep Con 126.9
Remarks: [1]Oper 1400-0600Z.

FRIANT (L) BVORTAC 115.6/FRA **FSS:** FRESNO

§FULLERTON MUNI *IFR* 3W **FSS:** LOS ANGELES (DL)
96 H31/6-24(1) (S-8, T-, TT-) BL5,11 S5 F4 U2 DT2
REIL: Rnwy 24.
Remarks: Rnwy 6 threshold displaced 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 threshold displaced 263′ W. 2857′ avbl lndg rnwy 24. Rgt tfc rnwy 24. Entry alt 1200′ MSL. P-line NE. Overngt tiedown fee. Prior approval acft over 12,500 GWT and single eng acft 1000 or more hp.
Tower[1] 119.1 122.6R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
Remarks: [1]Oper 1400-0600Z.

GAVIOTA (L) BVORTAC 116.5/GVO **FSS:** SANTA BARBARA

GEORGE (L) VOR 108.6/VCV

GOFFS (L) BVOR 114.4/GFS **FSS:** NEEDLES

GORMAN (L) BVORTAC 116.1/GMN **FSS:** BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

§HAWTHORNE MUNI *IFR* 1E **FSS:** LOS ANGELES (DL)
64 H45/7-25(1) (S-30, T-50, TT-) BL4,11 S-5 F4 U2 DT2
REIL[1] Rnwy 25
Remarks: Rnwy 7 threshold displaced 1025′ E, 3975′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 475′ W. 4525′ avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. P-line NE. Rgt tfc E. [1]REIL inop 2300-0700. Prior approval rqrd jet powered acft.
Tower[1] 121.1 122.5R ~~121.6~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 124.3[3] 125.2[2]
Remarks: [1]Oper 0700-2300 lcl time. [2]045°-224°. [3]225°-044°.

HAYWARD AIR TERMINAL *IFR* . 2SW **FSS:** OAKLAND (LC 562-7807)
46 H52/10R-28L(2) (S-100, T-190, TT-290) BL4 S5 F4 DT2
Remarks: Rnwy 22 threshold relctd 1850′ SW; rnwy length 3150′. TPA 600′ excp rnwy 10L-28R 800′.
Tower 118.9 122.5R 212T **Gnd Con** 121.7
Radar Services:
Oakland App Con 118.1 116.8T
Oakland Dep Con 124.7 120.9 116.8T
RBn MHW 242/HWD 243° 4 NM to fld
Remarks: [1]Oper 0600-2400 lcl time.

HECTOR (H) BVORTAC 112.7/HEC **FSS:** DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL **FSS:** IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI **FSS:** SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS **FSS:** PALMDALE

LA VERNE
BRACKETT FLD *IFR* 1SW **FSS:** ONTARIO (DL)
997 H40/8-26(1) BL4 S5 U2 DT2
Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.
Tower[1] 118.2 122.7R ~~121.5~~ **Gnd Con** 121.7
VFR ADV: Ctc March APP CON 124.0, 122.5R/DEP CON 125.5, 122.5R
Remarks: [1]Oper 0700-2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN **FSS:** STOCKTON

LONG BEACH *IFR* 3NE **FSS:** LOS ANGELES (DL)
§LONG BEACH (Daugherty Fld)
58 H100/12-30(5) (S-65, T-110, TT-180) BL4,6,8A,10,11,12 S5 F5, JP1, JP4 U2 DT2 **RVR:** Rnwy 30.
Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R 25R, 34R.
Long Beach Tower 119.5[1] 120.5[2] 126.2[2] 122.4R[1] **Gnd Con** 121.9
Radar Services:
Long Beach App Con 124.2 135.8 110.3T
Long Beach Dep Con 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558
ILS 110.3 I-LGB Apch Brg 300° **LOM** 233/LG
VHF/DF[1] Ctc twr.

CALIFORNIA—*Continued*

(L) BVORTAC 115.7/LGB 274° 4.4NM to fld
Remarks: [1]For all left rnwys. [2]For all right rnwys. **VOT:** 109.0

§LOS ANGELES INTL ***IFR*** 9SW **FSS:** LOS ANGELES on Fld
126 H120/7R–25L(4) (S–100, T–180, TT–340)
BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R
RVV: Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R
Remarks: U.S. Customs lndg rgts arpt. Rnwy 34 threshold displaced 1679′ N. Rnwys 25L, 25R thresholds displaced 600′ W. Rnwy 16–34 (S125 T200+ TT400+).
Tower 118.9 125.8 123.7[1] 122.7R **Gnd Con** 121.6 121.8
‡**Clrnc Del** 126.85 121.4
ATIS: 108.5
Radar Services:
App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Dep Con 125.2[2] 124.3[3]
Tfc Info Expanded radar service avbl.
PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.
ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426
ILS[4] 109.9 I–LAX Apch Brg 248° **LOM:** 266/LA
VHF/DF ctc twr.
(H) BVORTAC 113.6/LAX at fld.
RBn SABH 332●/LAX 245° 3.4 NM to fld.
Remarks: [1]Heli Operns. [2]035–224° [3]225–044° [4]Glide slope unusable below 300′ MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)
§VAN NUYS ***IFR*** 3NW **FSS:** LOS ANGELES (DL)
800 H80/16R–34(2) (S–70, T–120, TT–210) BL5,11 S5 F4
JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R
Remarks: Rnwy 16R threshold displaced 1376′ S. 6624′ avbl lndg rnwy 16R. Rnwy 16L–34R daylgt use only. Rnwy 16L threshold displaced 1432′ S. 2568′ avbl lndg rnwy 16L. Parallel 2000′ strip bet 16L–34R and 16R–34L clsd except emerg.
Tower 120.3[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7
ATIS:[1] 113.1
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
(L) VOR 113.1/VNY on fld.
Remarks: [1]Oper 0600–2200 lcl time. [2]360–149° and departure rnwy 16L–34R. [3]150–359° and departure rnwy 16R–34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN **FSS:** FRESNO

MARYSVILLE (T) BVOR 110.8/MYV **FSS:** MARYSVILLE

MATHER (L) VORM 114.6/MHR

MAXWELL (L) BVORTAC 110.0/MXW **FSS:** MARYSVILLE

McCLELLAN RBn MHW 395/MCC

MODESTO
§CITY-COUNTY ***IFR*** 2 SE **FSS:** STOCKTON (DL)
96 H50 (2) BL4 S5 F4 DT2
Remarks: Rgt tfc rnwys 11R, 29R.
- **Tower**[1] 120.0 122.7R **Gnd Con** 121.7
VFR ADV: Ctc Stockton APP CON on 125.1
Modesto (T) BVOR 108.4/MOD
Remarks: [1]Oper 1400–0600Z.

MONTAGUE
SISKIYOU COUNTY ***IFR*** 4NE **FSS:** MONTAGUE ON FLD
2651 H75(1) (S90 T120 TT175) BL4 S5 F4 DT 2
Tower 126.2 118.7T 122.5R
Montague RBn BH 382/SIY

§MONTEREY PENINSULA ***IFR*** 3SE **FSS:** SALINAS (DL)
220 H50/10–28(2) (S–40, T–70, TT–120) BL5,6,8A,9 S5 F5, JP1 U2 DT2
Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.
Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9
Monterey App Con 120.8
Monterey Dep Con 120.8
ILS[1] 110.1 I–MRY Apch Brg 096° **LOM:**[2] 281/MR
Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130–150°.

§NAPA COUNTY 5S **FSS:** OAKLAND (DL)
33 H53/18–36(2) BL4 S5 F4 DT2
Tower[1] 118.8 122.7R **Gnd Con** 121.7
(L) BVORTAC 112.1/APC
Remarks: [1]Opers 0700–2300 lcl time.

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON L) VORW 117.6/SBD
RBn MHW 347/BD

OAKLAND
§ OAKLAND INTL ***IFR*** 4S **FSS:** OAKLAND on Fld
6 H100/11–29(4) (S–100, T–160, T–290) BL6, 8A,9,14,15 S5 F5, JP1, JP4 U2 DT2
RVV: Rnwy 27R **RVR:** Rnwy 29
Remarks: Rnwy 33 threshold displaced 2113′ N. Rgt tfc rnwys 27R, 9R, 33 & 11. Overngt tiedown fee.
Oakland Tower 118.3 126.0 122.6R 116.8T
Clrnc Del 121.1
Gnd Con 121.9 121.6
ATIS: 108.7 109.9
Radar Services: (BCN)
Oakland App Con 118.1[1] 116.8T 120.9[2]
Oakland Dep Con 124.7
Tfc Info Call App Con 25 mi out.
PAR[4] Rnwy 29 Ceil 200 Vslby ½ mi Min Alt 206
ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.
ILS 108.7 I–INB Apch Brg 293° **LOM:** 266/IN
109.9 I–OAK Apch Brg 275° BC unusable
VHF/DF[3] Ctc twr.
Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.
Oakland RBn SABH 362●/OAK on fld.
Remarks: [1]271–090° 090–270° [3]Unusable below 6000′ MSL 360–050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

§ONTARIO INTL ***IFR*** 2E **FSS:** ONTARIO on Fld
952 H100/7–25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 1000′ on W end. 1000′ overrun E end rnwy 7–25.
Tower 118.5 122.5R **Gnd Con** 121.9
Clrnc Del 120.6
Radar Services: (BCN)
March App Con 124.0 122.5R 111.4T
March Dep Con 125.5 122.5R
ILS 109.7 I–ONT Apch Brg 255° **LOM:** 227/OM
(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VOR 111.2/OAF

OXNARD
§VENTURA COUNTY ***IFR*** 1W **FSS:** SANTA BARBARA (DL)
43 H59/7–25(1) (S–36, T–48 TT–75) BL4,11 S5 F4, JP4 U2 DT2 **REIL** rnwy 25.
Remarks: Rnwy 25 threshold displaced 1377′ W. 4570′ avbl

CALIFORNIA—*Continued*

Indg rnwy 25. Rnwy 7 threshold 750′ E. 5197′ avbl Indg rnwy 7.
Tower 120.7 122.4R ~~121.5~~ **Gnd Con** 121.9
Oxnard App Con 124.7 122.5R
Oxnard Dep Con 124.7
Ventura (L) BVORTAC 108.2/VTU
Remarks: [1]Opers 0600–2200 lcl time.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF
RBn SABH 338/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)
816 H46/9–27(2) BL5, 11 S5 F4 U2 DT2 **REIL:** Rnwy 27
Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.
Tower[1] 121.0 122.6R ~~121.5~~ **Gnd Con** 121.7
VFR ADV Ctc March App Con 124.0 122.5R/Dep Con 125.5 122.5R
(T) VOR 111.4/RAL
Remarks: [1]Opers 0600–2200 lcl time.

§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld
21 H60/2–20(3) (S–90, T–120, TT–180) BL4,6 8A, 9 S5 F4, TP–1 U2 DT2 **RVV:** Rnwy 2
Remarks: Antenna NNW. 2200′ apch lgtg rnwy 2. Perimeter txwy to rnwy 30 not visible from twr, ctc twr when number one for dptr.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS: 110.3
Radar Services: (BCN)
App Con 119.1 125.2 121.0 122.5R
Dep Con 124.5
VHF/DF Ctc FSS.
ILS 110.3 I–SAC Apch Brg 016° **LOM:** 356/SA
(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO (H) BVORTAC 117.8/SAN **FSS:** SAN DIEGO

SAN DIEGO

§MONTGOMERY FLD 6N **FSS:** SAN DIEGO (LC 296–3181)
423 H34/10–28(2) (S30– T–, TT–) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwys 5, 10.
Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9
Remarks: [1]Opers 0700–2300 lcl time

§SAN DIEGO CO–GILLESPIE FLD 10NE **FSS:** SAN DIEGO (LC 296–3181)
385 H53(9–27(2) (S–67, T–113, TT) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl Indg rnwy 27. Rnwy 17–35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.
Gillespie Tower[1] 120.7 122.7R **Gnd Con** 121.7
Remarks: [1]Oper 0700–2300 lcl time

§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE **FSS:** SAN DIEGO (LU 296–3181)
15 H87/9–27(2) (S–100, T–200, TT–400) BL5,6,8A,9,11

CALIFORNIA—*Continued*

S–5 F5, JP1 U2 DT2 **REIL:** Rnwy 27
Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl Indg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions. Twr unable to see ramp area W of the Ryan Aero Plant and S of the parallel txwy.
Tower 118.3 122.4R 109.6T **Gnd Con** 121.7
ATIS: 110.9
Radar Services: (BCN)
San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T
San Diego Dep Con 125.7[3] 125.3[4]
Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I–SAN Apch Brg 092° **LOM:** 278/SA
Lindbergh (L) BVOR 109.6/LIF on fld.
Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)
11 H95(10L–28R) (4) (S–200, T–200, TT–400) BL6,8A,9,10,11,12 S–5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVV:** Rnwy 19 **RVR:** Rnwy 28R
Remarks: U.S. Custom Indg rgts arpt. Rnwy 28R threshold displaced 200′ SE. 9496′ avbl Indg rnwy 28R. Rnwy 1R threshold displaced 1100′ SW. 8400′ avbl Indg rnwy IR. REIL N end rnwy 19L and E end rnwy 28L inop.
Tower 120.5 122.7R **Gnd Con** 121.8
‡Clrnc Del 121.4
ATIS: 111.2
Radar Services:
App Con 124.9[1] 119.3[2] 111.2T 109.5T
Dep Con 124.4 128.5
Tfc Info Ctc OAK app con 0600–1400 for trml radar service.
PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.
ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412.
Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512
ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF
VHF/DF Ctc twr.
(L) VOR 111.2/SFO at fld.
RBn MHW 275/SIA 191° 0.6 to rnwy 19L.
Remarks: [1]315–134°, [2]135–314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0 unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)
56 H78/12R–30L (2) (S–100, T–150, TT–230) BL6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30L
Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl Indg rnwy 30L. Twr unable to see NE tfc patn. Displaced threshold clsd to acft over 12,500 lbs.
Tower 120.7[2] 122.4R 124.0[1] **Gnd Con** 121.7
ATIS[3] 108.2
Radar Services: (BCN)
Moffett App Con 120.1 123.7 122.4R 110.9T 108.2T
Moffett Dep Con 121.3 122.4R 108.2T
Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
(L) VOR 108.2/SJC on fld.
Remarks: [1]Rnwys 30L–12R [2]Rnwys 30R–12L [3]Opers 0800–2000 lcl time

SAN LUIS OBISPO (L) BVORTAC 112.4/SBP **FSS:** PASO ROBLES

CALIFORNIA—*Continued*

SANTA ANA
§ORANGE COUNTY *IFR* 4 S **FSS:** LOS ANGELES (DL)
53 H57/1L-19R(2) (S-68, T-95, TT-170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

§SANTA BARBARA MUNI *IFR* 7 W **FSS:** SANTA BARBARA on fld
14 H50/7-25 (2) (S-40, T-71, TT-117) BL5,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 7–25 overrun unlgtd. Rnwy 25 threshold displaced 296′ E end rnwy 25, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I-SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC **FSS:** LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX

§SANTA MONICA MUNI *IFR* 3 E **FSS:** LOS ANGELES (DL)
175 H50/3-21 (1) S-80, T-120, TT-220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[3] 120.1 122.6R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[1] 124.5[2] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°-225°, [2]225°-044° [3]Oper 0700–2300 lcl time. VOT: 110.2. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§SONOMA COUNTY *IFR* 6 NW **FSS:** UKIAH (DL)
125 H50/14-32(2) (S-80, T-130, TT-220) BL4 S5 F4 U2 DT2
Remarks: Attended days.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU **FSS:** OAKLAND

§STOCKTON METROPOLITAN *IFR* 3S **FSS:** STOCKTON on fld
27 H86/11L-29R(4) (S-100, T-200, TT-400) BL6,8A,9,12 S5 F4 TF1 U2 DT2 **RVV:** Rnwy 29R
Remarks: 1500′ apch lgt sys rnwy 29R. Minimum VFR alt 1500′ when within 1 mi radius Sharpe AAF aprxly 3.5 NM SSW of fld.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I-SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§LAKE TAHOE 2SE **FSS:** SACRAMENTO (DL)
6263 H85/18-36(1) (S70 T120 TT230) BL4, 5 S5 F4 JP1 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 36. Rnwy 36 threshold displaced 2040′. UNICOM opers dalgt hrs only.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR 113.2/LTA
Remarks: [1]Opers 0700–2300 lcl time

CALIFORNIA—*Continued*

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

§TORRANCE MUNI *IFR* 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L-29R(2) (S-30, T-50, TT-80) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L–29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy, 11L–29R. Rnwy 11R–29L open 6 am to 10 pm. Rnwy 11L–29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 118.1 124.0 122.7R ~~121.6~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 127.2
Remarks: [1]Oper 0600–2200 lcl time. [2]045°–224°. [3]225–044°.

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

BUCKLEY (T) VOR 112.7/BKF

COLORADO SPRINGS
§PETERSON FIELD *IFR* 6 SE **FSS:** DENVER (LC 634-3127)
6172 H110/17-35(3) (S-100, T-200, TT-400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17–35. 1000′ overrun each end rnwy 17–35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I-COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] Ctc twr.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340–055° and 15 nmi 245–270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER
§STAPLETON INTL *IFR* 4 E **FSS:** DENVER on Fld
5331 H115/17-35(3) (S-120, T-200, TT-350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: U.S. Customs lndg rgts arpt. (3 hr advance notice rqd.). Twr unable to determine whether acft on correct final apch to rnwys 8L–8R and 26L–26R. Rnwy 17–35 clsd every Mon and Thurs 1430–1630Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3
Radar Services: (BCN)
Denver App Con 119.3[1] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 126.9

COLORADO—*Continued*

Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I–DEN Apch Brg 257° **LOM**: 362/DE
108.1 I–SPO Apch Brg 350°
VHF/DF Ctc twr
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270–089°. [2]090–269°. **VOT**: 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC FSS: FARMINGTON

DURANGO (L) BVOR 108.2/DRO FSS: FARMINGTON

ENGLEWOOD RBn H–SAB 379●/EWD FSS: DENVER

GILL (L) BVOR 108.8/GIL FSS: DENVER

GRAND JUNCTION
§WALKER FIELD ***IFR*** 3NE FSS: GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12
S5 F4 JP1 TP1 U2 **REIL**: Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I–GJT Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[2] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable below 5132'. [2]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC FSS: GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO FSS: LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC FSS: DENVER

KREMMLING (H) BVORTAC 113.8/RLG FSS: EAGLE

LAMAR (H) BVORTAC 116.9/LAA FSS: LA JUNTA

MEEKER (H) BVORTAC 115.2/EKR FSS: EAGLE

PETERSON (L) VORW 109.0/PEF

§PUEBLO MEML ***IFR*** 5E FSS: PUEBLO on Fld
4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F4
. TP1 **RVV**: Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I–PUB Apch Brg 075° **LOM**: 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC FSS: AKRON

TOBE (L) BVORTAC 115.8/TBE FSS: TRINIDAD

TRINIDAD RBn SABH 329●/TAD FSS: TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI ***IFR*** 3SE
FSS: WINDSOR LOCKS (LC ED 5–6097)
9 H47 (11–29(3) (S–36.5, T–55.5, TT–) BL5,6 S5 F5 JP1, JP4
U2 DT2
Remarks: U.S. Customs lndg rgts.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON FSS: PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI–3–3245)
Remarks: [1]Oper by State.

HARTFORD (L) BVORTAC 114.9/HFD FSS: WINDSOR LOCKS
RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD FSS: WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN FSS: WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW FSS: PROVIDENCE

CONNECTICUT—*Continued*

PUTNAM (L) BVORTAC 113.8/PUT FSS: WORCESTER

WINDSOR LOCKS
§BRADLEY FIELD ***IFR*** 3W FSS: WINDSOR LOCKS on Fld.
173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10,14,15 S5
F5, JP4,5 U2 DT2 **VASI**: Rnwy 33
Remarks: U.S. Customs lndg rgts arpt. Rnwy 6–24 A–Gear both ends.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I–BDL Apch Brg 058° **LOM**: 388/BD
Remarks: Glide slope rnwy 6 unusable below 373'.

DELAWARE

DOVER (T) VOR 108.4/DOV
Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO FSS: MILLVILLE

WATERLOO (L) BVORTAC 112.6/ATR FSS: SALISBURY

WILMINGTON
§GREATER WILMINGTON ***IFR*** 4S FSS: MILLVILLE (LC 652–5419)
79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5
F4, JP1 U2 DT2 **RVR**: Rnwy 1.
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125.0 110.3T
ILS 110.3 I–ILG Apch Brg 014° BC unusable **LOM**: 248/IL
VHF/DF Ctc twr.
New Castle (L) BVORTAC 114.0/EWT 067° 0.5 nmi to fld.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON
§DULLES INTL ***IFR*** 21W FSS: WASHINGTON (DL)
313 H115/(1L–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15
S5 F5,JP1,JP5 U2 DT2 **VASI**: Rnwy 12 **RVR**: Rnwy 1R, 19L, 19R
Remarks: U.S. Customs lndg rgts aprt. RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.4
Radar Services: (BCN)
App Con 119.2 126.1
Dep Con 125.55
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I–DLX Apch Brg 186°
109.3 I–DIA Apch Brg 006° **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

§WASHINGTON NATIONAL ***IFR*** 3S FSS: WASHINGTON on Fld
15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15
S5 F5,JP1 U2 DT2 **VASI**: Rnwys 15, 18 **RVV**: Rnwys 18, 15
RVR: Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18
Remarks: U.S. Customs lndg rgts arpt. Very limited parking. Caution turbulance apch ends rnwys 21, 33 and 36.
Tower 119.1 122.5R **Gnd Con** 121.7
‡Clrnc Del 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[2] 127.0[1] 122.5R 128.8 109.9T

DISTRICT OF COLUMBIA—*Continued*

Dep Con 118.1[1] 126.55[2]
Tfc Info: Expanded radar service avbl: Arr 119.3 Dep 118.3
PAR[3] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I–DCA Apch Brg 003° BC unusable **LOM:** 332/DC
VHF/DF Ctc twr.
Washington (L) VORTAC 111.0/DCA at fld.
Washington RBn H–SAB 332●/DC 001° 4.6 NM to fld.
Remarks: [1]West. [2]East. Circling PAR avbl on 15 min notice durg VFR conditions. [3]Radar monitoring instrument apchs only at pilot's request. LOM is H–SAB. **VOT:** 108.2.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY **FSS:** MIAMI

CECIL (L) VORW 108.2/NCZ

CRESTVIEW (H) BVORTAC 115.9/CEW **FSS:** CRESTVIEW

CROSS CITY (L) BVOR 112.0/CTY **FSS:** GAINESVILLE
Remarks: To be BVORTAC Oct 28.

§DAYTONA BEACH MUNI *IFR* 3SW **FSS:** ORLANDO (LC255–4767)
34 H57/6–24(3) (S–60, T–80, TT–) BL4,6,8A,9
S5 F5, JP1 U2
Remarks: Rgt tfc rnwy 6.
Tower 120.7 126.2 122.5R **Gnd Con** 121.9
App Con 123.9 122.5R 112.6T 109.7T
ILS[1] 109.7 I–DAB Apch Brg 065° **LOM:** 263/DA
(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.
Remarks: [1]Glide slope unusable below 150′ MSL.

DESTIN RBn HW 201/DES

EGLIN (L) VOR 110.8/VPS

EGMONT KEY RBn HW 310/H

FT. LAUDERDALE-EXECUTIVE IFR 5NW **FSS:** MIAMI (LC 524–0233)
14 H40(3) (Max 20) BL4 S5 F5 JP4
Remarks: Attended 0700–2000.
Executive Tower:[1] 125.2 122.6R
Remarks: [1]Opers 1100–0300Z daily, to be comsnd Oct 28.

§FT. LAUDERDALE-HOLLYWOOD INTL *IFR* 3SW AOE **FSS:** MIAMI (LC 524–0233)
10 H74/9–27(3) (S–115, T–200, TT–400) BL4 S5 F5, JP1 U2
Remarks: Rnwy 9–27 thresholds displaced 600′ both ends 1045′ AGL twr 7NM SSW.
Fort Lauderdale Tower 119.3 122.5R 111.4T
Gnd Con 121.7
Radar Services: (BCN)
Miami App Con 123.9 119.7
Miami Dep Con 128.0 119.7
Ft Lauderdale (L) BVOR 111.4/FLL on fld.
Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY **FSS:** FORT MYERS
RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD **FSS:** ST. PETERSBURG

GAINESVILLE (H) BVORTAC 116.2/GNV **FSS:** GAINESVILLE

GREENVILLE (L) BVOR 109.0/GEF **FSS:** TALLAHASSEE

HOLLYWOOD
§NORTH PERRY 5W **FSS:** MIAMI (LC 524–0233)
9 H31/4–22(4) (Max–16) BL5 S5 F4 U2
Remarks: Two way rdo required.
Tower[1] 121.3 122.4R
Remarks: [1]Opers 1200–0200Z.

HOMESTEAD (L) VOR 108.2/HST
RBn MHW 221/HST

FLORIDA—*Continued*

JACKSONVILLE
§IMESON *IFR* 5N **FSS:** JACKSONVILLE on Fld
52 H79/5–23(3) (S–62, T–110, TT–200) BL4,6,12 S5 F5, JP4 U2
RVV: Rnwy 5
Remarks: U.S. Customs lndg rgts arpt. Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. Rnwy 18–36 open for dalgt VFR operns. 1500′ apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410′ E, rnwy 12 displaced 335′ W. Jet arresting gear rnwy 5–23.
Jacksonville Tower: 118.3 126.2 122.5R 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2
Tfc Info: Ctc App Con on 119.0 25 mi out.
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452. Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I–JAX Apch Brg 045° BC unusable **LOM:** 221/JA
Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.
Jacksonville RBn H–SAB 344●/JAX 270° 1.4NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Glide slope unusable below 150′. **VOT:** 111.0

§KEY WEST INTL *IFR* 2 E AOE **FSS:** KEY WEST on Fld
4 H48/9–27(1) (S–30, T–40, TT–) BL4 S3 F4
Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 10:00 PM to Key West FSS.
Tower[1] 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Navy Key West App Con 118.7 122.5R
VFR ADV Ctc Key West rdo 0300–1100Z
(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.
RBn SBH 332/EYW 066° 1.2NM to fld.
Remarks: [1]Oper 0600–2200 lcl time.

LA BELLE (L) BVOR 110.4/LBV **FSS:** FORT MYERS

§LAKE CITY MUNI 3 E **FSS:** GAINESVILLE
202 H68/10–28(4) (S–75, T–140, TT–250) *L S5 F4 U1
Tower[1] 126.2
Remarks: [1]Oper 1300–2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL **FSS:** ST. PETERSBURG

MARATHON RBn HW 260/MTH **FSS:** KEY WEST

MARIANNA (L) BVOR 114.0/MAI **FSS:** DOTHAN

MELBOURNE
§JOHN F KENNEDY MEML *IFR* 2 NW **FSS:** MELBOURNE on Fld
32 H112/(9–27(3) (S–85, T–145, TT–270) BL4 S5 F4, JP5 U2
Remarks: 9603′ rnwy 9–27 available ngts, displaced threshold rnwy 27 1589′W
Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9
Radar Services:
Patrick App Con 118.4
Patrick Dep Con 118.4
Melbourne (L) BVOR 110.0/MLB on fld.
Melbourne RBn HW 257/MLB 087° 2.1NM to fld.
Remarks: [1]Oper 0600–2400 daily, VFR use only.

MIAMI
§MIAMI INTL *IFR* 8 NW AOE **FSS:** MIAMI on Fld
9 H105/9L–27R (4) (S–200, T–200 TT–400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L
Remarks: Fee. Clsd non engine acft.
Tower 118.3 120.5 125.0 126.2 122.4R **Gnd Con** 121.8
‡Clrnc Del 127.5
ATIS: 115.9
Radar Services: (BCN)

FLORIDA—*Continued*

App Con 118.1[1] 128.0 123.9[2] 122.4R
Dep Con 128.0[2] 119.7
Tfc Info Ctc Twr 20 mi out or remain above 2500′.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509. Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.
ILS 110.3 I-MFA Apch Brg 087° **LOM:**[4] 365/MF
109.5 I-MIA[3] Apch Brg 267° **LOM:** 248/MI
VHF/DF Ctc twr.
(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12
RBn H-SAB 365●/MF 087° 4.5NM to rnwy 9L.
Remarks: [1]090°–269° [2]270°–089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]Glide slope rnwy 27 unusable below 175′ MSL. [4]LOM is H-SAB. **VOT:** 112.0

§OPA LOCKA *IFR* 10 NW FSS: MIAMI
9 H80/9L-27R(5) (S-96 T-155 TT-290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L-27R. 1045′ TV twr 5 NM NNE. JP-1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.
Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Miami App Con 120.5 118.1
Miami Dep Con 128.0 119.7
Remarks: [1]Oper 1100–0300Z.

§TAMIAMI 8 W FSS: MIAMI
10 H38/14 32 (3) BL4 S5 F4
Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.
Tower[3] 121.1 122.6R **Gnd Con** 121.7
Radar Services:
Miami Dep Con 128.0[1] 119.7[2]
Remarks: [1]270°–089° [2]090–269°. [3]Opers 1200–0400Z.

OCALA (L) BVORTAC 112.8/OCF FSS: GAINESVILLE

ORLANDO
§HERNDON *IFR* 3 E FSS: ORLANDO on Fld
113 H60/7-25(3) (S-90, T-160, TT-300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7
Remarks: NW-SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.
Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7
Clrnc Del 121.7
Radar Services:
Orlando App Con 119.4 124.8 122.5R 109.9T
Orlando Dep Con 121.1
Tfc Info Ctc App Con on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613. Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.
ILS 109.9 I-ORL Apch Brg 067° **LOM:** 221/OR
(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK FSS: WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN FSS: TALLAHASSEE

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§PENSACOLA MUNI *IFR* 3 NE FSS: PENSACOLA on Fld
118 H50/16-34(2) (S-100, T-180, TT-320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16
Remarks: Overnight tie-down fee.
Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 123.9[1] 134.1 122.7R 119.0[2]
Dep Con 119.0[2] 134.1 123.9[1]
Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN
RBn H-SAB 326●/PNS 343° 1.8NM to fld.
Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR FSS: MIAMI

FLORIDA—*Continued*

ST AUGUSTINE
§FAIRCHILD-ST AUGUSTINE 3N FSS: JACKSONVILLE
10 H65/13-31(3) (S-30) BL4,6 S5 F5
Remarks: Rnwy 2-20 and 6-24 clsd to acft over 12,500 lbs when twr not in opern.
Tower[1] 126.2 123.1 122.5R
Remarks: [1]Oper 1230–2115Z Mon–Fri.

ST. PETERSBURG
WHITTED 2E FSS: ST. PETERSBURG
7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2
Remarks: Rgt tfc rnwys 6, 36.
Tower 120.4 122.4R **Gnd Con** 121.8
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T
Tampa Dep Con 126.5
Tfc Info: See Tampa Intl
Remarks: Opers 0600–2200.

§ST. PETERSBURG-CLEARWATER INTL *IFR* 8N
FSS: ST PETERSBURG on Fld
10 H80/17-35 (3) (S-95, T-155, TT-200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17
Remarks: U.S. Customs lndg rgts arpt. Rnwy 4-22 clsd to ngt operns UFN.
Tower[2] 118.3 122.7R **Gnd Con** 121.9
Radar Services (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T **Tampa Dep Con** 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI
St Petersburg (H) BVORTAC 116.4/PIE at fld.
Remarks: [1]Glide slope unusable below 150′ MSL. [2]Opers 0600–2200 lcl time.

SANFORD NAS RBn SH 408/NRJ FSS: ORLANDO

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§SARASOTA-BRADENTON *IFR* 3N
FSS: ST. PETERSBURG (LC 955-6160)
24 H50/13-31(3) (S-62, T-110, TT-190) BL4,6 S5 F5, JP1 U2
Remarks: Rnwy 9-27 and all perimeter txwys clsd to acft in excess 12,500 lbs.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 108.4T
Tampa Dep Con 126.5
Sarasota (L) BVOR 108.4/SRQ at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUFLEY (L) BVOR 108.8/NUN
RBn MH 293/NUN

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§TALLAHASSEE MUNI *IFR* 4 SW FSS: TALLAHASSEE on Fld
81 H61/18-36(2) (S-80, T-150, TT-270) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 36
Tower 118.7 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
App Con 118.1 122.5R 117.5T 110.3T
Dep Con 118.1
ILS[1] 110.3 I-TLH Apch Brg 358° **LOM:** 379/TL
(H) BVORTAC 117.5/TLH
RBn H-SAB 379●/TL 358° 4.1NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 160′ MSL. LOM is H-SAB **VOT:** 111.0

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§TAMPA INTL *IFR* 3 W AOE **FSS:** ST. PETERSBURG (LC223-3431
27 H87(18R-36L (S-60, T-175, TT-270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L
Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.

FLORIDA—*Continued*

Tower 119.9 126.2 122.5R 110.3T **Gnd Con** 121.7

Radar Services (BCN)

App Con 119.5 125.3 122.5R 118.5 116.0T 116.4T 108.4T

Dep Con: 126.5

Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.

ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP

RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36

VHF/DF: ctc FSS

Remarks: VOT: 111.0

TAYLOR (L) BVORTAC 113.8/TAY FSS: VALDOSTA

TYNDALL (L) VOR 117.7/PAM

RBn HW 227/AAN

VENICE RBn MHW 209/XVN FSS: FORT MYERS

Remarks: VFR use only. Owned and operd by city.

VERO BEACH (H) BVORTAC 117.3/VRB **FSS:** VERO BEACH

WEST PALM BEACH

§PALM BEACH INTL ***IFR*** 3 W AOE **FSS:** MIAMI (LC 832–5697)

19 H80/9–27(2) (S–85, T–400, TT–) BL4.6,8A,9 S5 F5 JP4

RVV: Rnwy 9

Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.

Tower 119.1 122.7R **Gnd Con** 121.9

App Con 118.0 122.7R 115.5T 109.3T

ILS[1] 109.3 I–PBI Apch Brg 093° **LOM:** 356/PB

Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.

Palm Beach RBn HW 356/PB 093° 5.7 NM to fld.

Remarks: [1]Glide slope unusable below 150′. LOM is HW. **VOT:** 109.0.

GEORGIA

ALBANY (L) BVOR 112.9/ABY **FSS:** ALBANY

ALMA (H) BVORTAC 115.1/AMG **FSS:** ALMA

ATHENS (L) BVORTAC 109.6/AHN **FSS:** ANDERSON

ATLANTA

§ATLANTA MUNI ***IFR*** 7SSW **FSS:** ATLANTA

1024 H100(9L–27R(4) (S–100, T–170, TT–340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.

Remarks: Aprxly 2100′ of W end rnwy 9R–27L not visible from twr. TV towers 1042′ (2049′ MSL) 8.5 NM NE. 1076′ (2049′ MSL) 7.5 NM NE. 1100′ (2049′ MSL) 10 nmi NE. Commercial Fee only. [1]Avail for apch and roll out.

Tower 119.1 119.5 122.7R **Gnd Con** 121.9

‡Clnrc Del 121.6

ATIS: 111.8 111.0

Radar Services: (BCN)

App Con 127.7 (N of V18) 118.1 (S of V18) 109.9T 109.3T 110.5T

Dep Con 125.7 125.0

Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.

PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.

ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424.
Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.

ILS 109.9 I–ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I–AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I–ALR Apch Brg 089° **LOM:** 254/AL

(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.

RBn H–SAB 266●/ATL 270° 4.7NM to rnwy 27R.

Remarks: [1]Glide slope rnwy 33 unusable below 1085′ MSL. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

§DEKALB-PEACHTREE ***IFR*** 8 NE **FSS:** ATLANTA

1002 H40/16–34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2

GEORGIA—*Continued*

Remarks: TV towers 1042 (2049′ MSL) 7.5NM SSW; 1076′ (2049′ MSL) 8NM SSW; 1100′ (2049′ MSL) 5NM SSW.

Peachtree Tower[1] 120.9 122.5R ~~121.6~~ **Gnd Con** 121.7

Radar Services:

Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8

Remarks: [1]Oper 1200–0400Z.

§FULTON COUNTY ***IFR*** 6W **FSS:** ATLANTA on Fld

839 H52/8–26(2) (S50, T–77, TT–) BL4, 11 S5 F5

REIL: Rnwy 8.

Remarks: Towers 1042′ (2049′ MSL) 9 NM E. 1076′ (2049′ MSL) 8NM E. 110′ (2049′ MSL) 9.5 NM E.

Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7

Radar Services:

Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8

(L) BVOR 108.2/FTY on fld.

RBn MH 245/FTY on fld

VHF/DF: Ctc FSS.

Remarks: [1]Oper 1200–0400Z.

AUGUSTA

§BUSH FIELD ***IFR*** 6S **FSS:** AUGUSTA on Fld

145 H80–17–35(2) (S–150, T–200, TT–360) BL4,6,8A,9 S5 F5, JP1, JP4 U2

Remarks: 1506′ (1882′ MSL) twr 7NM ENE and 1292′ (1677′ MSL) twr 7NM NE.

Augusta Tower 118.7 126.2 122.5R 110.5T

Gnd Con 121.9

Augusta App Con 125.4 122.5R 113.9T 110.5T

ILS[1] 110.5 I–AGS Apch Brg 349° BC unusable **LOM:** 233/AG

Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.

Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.

VHF/DF Ctc FSS.

Remarks: [1]Glide slope unusable below 245′ MSL.

BLAKELY RBn MHW 365/BLG

BRUNSWICK (L) BVOR 109.8/SSI **FSS:** BRUNSWICK

COLUMBUS

§MUSCOGEE COUNTY ***IFR*** 4NE **FSS:** ATLANTA

397 H50/5–23(2) (S–60, T–80, TT) BL4,6 S5 F5, JP5 U2

Remarks: Rnwy 12–30 closed to ngt lndgs.

Tower 120.1 122.5R **Gnd Con** 121.9

Columbus App Con 125.3 122.5R 110.3T 335T

Columbus Dep Con 125.3

ILS[1] 110.3 I–CSG Apch Brg 053° BC unusable **LOM:** 355/CS

Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.

Remarks: [1]Glide slope unusable below 693′.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN **FSS:** MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA

HARRIS (L) BVOR 110.4/HRS **FSS:** KNOXVILLE, TENN.

LA GRANGE (L) BVOR 109.4/LGC **FSS:** ANNISTON

LAWSON (L) VOR 111.4/LSF

RBn SH 335/AWS

Remarks: VOR inoperative UFN.

LIBERTY RBn MHW 263/HIN

LOST MOUNTAIN RBn HW 314/LSM

§MACON MUNI ***IFR*** 9S **FSS:** MACON on Fld

354 H50/5–23(2) (S–30, T–50, TT–85) BL4,6,8A,9 S3 F5, JP1 U2 **RVV:** Rnwy 5

Remarks: Apch lgts rnwy 5 unattented 2300–0700 lcl time. Rnwy lgts oper dusk-2300; after on req thru FSS.

GEORGIA—*Continued*

Tower[2] 118.3 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T
Dep Con 124.8
ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.
ILS[1] 109.5 1–MCN Apch Brg 047° BC unusable **LOM:** 290/MC
(H) BVORTAC 114.2/MCN at fld.
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 450′ MSL. [2]Opers 0700–2300 lcl time.

MOULTRIE (L) BVOR 108.8/MGR **FSS:** VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR **FSS:** ATLANTA

REX (L) BVOR-DME 111.8/REG **FSS:** ATLANTA

ROME (L) BVOR 115.4/RMG **FSS:** ATLANTA
RBn MHW 388/RMG

SAVANNAH
§TRAVIS FIELD *IFR* 7NW **FSS:** SAVANNAH on Fld
50 H90/9–27(3) (S40–T60–TT–110) BL4,6,8A,9 S5
F4, JP5 **RVR:** Rnwy 9
Remarks: Rnwy 27 threshold displaced 400′. Rnwy 5–23 clsd all acft in excess 12,500 lbs GWT. Jet barrier and arresting gear rnwy 9–27
Savannah Tower 119.1 126.2 122.5R 110.1T
Gnd Con 121.9
Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7
ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: **VOT:** 111.0

TOCCOA (L) BVOR 109.8/TOC **FSS:** ANDERSON

VALDOSTA (L) BVOR 110.4/VLD **FSS:** VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA **FSS:** MACON

WAYCROSS (L) BVORTAC 110.2/AYS **FSS:** ALMA

IDAHO

§BOISE AIR TERMINAL *IFR* 3S **FSS:** BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9
S5 F5, JP1,4 U2 **RVV:** Rnwy 28R **RVR:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R. Jet barriers and arresting gear Rnwy 10R–28L plus jet barriers with donut supported cable aprxly 1000′ in from threshold lgts on rnwy 10R–28L.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI **FSS:** BURLEY
RBn SBH 272/BYI

COEUR D' ALENE RBn HW 347/COE **FSS:** SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS **FSS:** IDAHO FALLS

§IDAHO FALLS
FANNING FIELD *IFR* 2NW **FSS:** IDAHO FALLS on Fld
4739 H74/2–20(2) (S–30, T–90, TT–150) BL5,6,11 S5 F4 JP5
REIL: Rnwy 20.
Remarks: Rnwy 20 threshold displaced 830′ NE. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 545′ N. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350●/IDA 199° 2.2NM to rnwy 20.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

IDAHO—*Continued*

LEWISTON (L) BVOR 108.2/LWS **FSS:** WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD **FSS:** MALAD CITY

McCALL (H) BVORTAC 116.2/MYL **FSS:** BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP **FSS:** MULLAN PASS

§POCATELLO MUNI *IFR* 7NW **FSS:** POCATELLO on Fld
4448 H82/3–21(3) (S70, T95, TT145) BL5,6,9,12 S5 F4 JP1
U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF **FSS:** BURLEY

ILLINOIS

§ALTON CIVIC MEML *IFR* 5E **FSS:** ST. LOUIS
541 H51(2) BL5 S5 F4 JP1 U2 (LC HO 5–4112)
Remarks: P-line NW. Hwy N
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
St. Louis Dep Con 119.9
VFR ADV: Ctc St. Louis, Lambert-St. Louis
RBn MHW 263/ALN
Remarks: [1]Oper 0700–2300 [2]Southeast Arrivals [3]Northwest arrivals

BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB **FSS:** VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI **FSS:** PEORIA

BRADFORD (H) BVORTAC 114.7/BDF **FSS:** PEORIA

CAHOKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

CAPITAL (H) BVORTAC 112.7/CAP **FSS:** VANDALIA

CARBONDALE RBn BMH 248/MDH **FSS:** CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL **FSS:** VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4SSW
FSS: CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4 U2 DT2
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY *IFR* 3NW **FSS:** JOLIET (DL)
758 H40/10–28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 DT2
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy 5–23 clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R ~~121.5~~ **Gnd Con** 121.7
Remarks: [1]Oper 0600–2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E **FSS:** JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1,500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear acft. (3) 25 knots or more to all acft. Fld clsd daily to all opers btn hrs 2400 and 0600 lcl time due, no safety or svcs

facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs.
Meigs Tower[1] 121.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Chicago Dep Con: 119.5
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY ***IFR*** 9SW AOE **FSS:** JOLIET (DL)
619 H65/13R-31L(6) (S–130, T–200, TT–400) BL2,4,6,8A,9,11 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 119.2 126.2 122.7R 123.7 ~~121.5~~ 109.9T 109.5T
Gnd Con 121.7
Radar Services:
Chicago App Con 119.5
Chicago Dep Con[1] 119.5
Tfc Info Ctc Chicago App Con on 119.5.
VFR ADV: Ctc twr on 119.2
PAR[2] Rnwy 13R Ceiling 300 Vsby ¾ mi Min alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I–MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I–MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H–SAB 350●/MDW 152° 2.2 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immediate area of Midway on 119.2 [2]PAR unusable from MM to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. LOM is Kedzie MHW. **VOT:** 111.0.

§CHICAGO-O'HARE INTL ***IFR*** 14NW **FSS:** JOLIET (DL)
667 H116/14R-32L(5) (S–120, T–200, TT–375) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **RVR:** 14R, 14L, 32L
RVV: Rnwys 4, 9, 27, 32R **VASI:** Rnwy 22.
Remarks: U.S. Customs lndg rgts arpt. Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts First 1000′ rnwy 14L clsd.
O'Hare Tower 118.1 126.2 122.6R 120.7 113.9T 110.1T 109.7T
‡Clrnc Del 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4[1] 125.0[2]
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
VFR ADV: 127.4
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby ½ mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby ¾ mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I–ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I–OHA Apch Brg 138° **LOM:** 368/OH
110.5 I–IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I–RVG Apch Brg 318° **LOM:** 257/RV
111.1 I–IDN Apch Brg 318° **LOM** 385/ID
111.3 I–HNA Apch Brg 040°
(L) VORTAC 113.9/ORD on fld.
VHF/DF Ctc twr.
Remarks: [1]180°–359° [2]360°–179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE

DECATUR MUNI ***IFR*** 4E **FSS:** VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 TP1 U–2
Remarks: REIL rnwy 18, 36
Tower: 118.9 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700–2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

GLENVIEW RBn MH 269/NBU

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY ***IFR*** 3S **FSS:** BURLINGTON (DL)
590 H55/9-27(3) (S–56, T–82, TT–140) BL4,6,8A,9 S5 F4, JP4 U2 DT2 **RVV:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 121.7[1] 224T
ILS 110.3 I–MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.
Remarks: [1]For IFR acft operg Davenport Mun Arpt Iowa

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE

PEORIA
§GREATER PEORIA ***IFR*** 4W **FSS:** JOLIET
659 H70/12-30(4) (S–65, T–90, TT–170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. Arresting gear rnwy 12–30. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 I–PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD ***IFR*** 9E **FSS:** QUINCY on Fld
769 H54/3-21(3) (S65, T–90, TT–170) BL4,6 S5 F4 JP1 DT2
ILS 110.1 I–UIN Apch Brg 035° **LOM:** 293/UI
Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.

ILLINOIS—*Continued*

Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS **FSS:** CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD *IFR* 4S **FSS:** ROCKFORD on Fld
735 H60/18–36(3) (S–150, T–200, TT–400) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 36 **RVR:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I–RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV

SAMSVILLE (L) BVOR 116.6/SAM **FSS:** EVANSVILLE

SPRINGFIELD
§CAPITAL *IFR* 3NW **FSS:** VANDALIA (DL)
593 H70/4–22(3) (S–85, T–120, TT–210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVV:** Rnwy 4 **REIL:** Rnwy 22.
Remarks: Jet barrier rnwy 4–22.
Tower 121.3 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 118.6 aprx 25NM out
Springfield App Con 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I–SPI Apch Brg 038° **LOM:** 379/SP
Springfield RBn MHW 379/SP 038° 5.1 NM to rnwy 4
Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY **FSS:** ST. LOUIS

VANDALIA (L) BVORTAC 114.3/VLA **FSS:** VANDAILA

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID **FSS:** INDIANAPOLIS

BAKALAR RBn HW 410/BAK

BLOOMINGTON (L) BVOR 110.2/BMG **FSS:** INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL
RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU **FSS:** INDIANAPOLIS

CONNERSVILLE RBn MHW 275/CEV
Remarks: Owned and operd by city.

EVANSVILLE
§DRESS MEMORIAL *IFR* 3N **FSS:** TERRE HAUTE (DL)
389 H60/3–21(3) (S–70, T–90, TT–) BL4.6 S5 F5 TPI U2 DT2
Remarks: P-line apch rnwy 21. Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below. First 700′ rnwy 21 clsd dalgt operns and first 250′ clsd ngt operns UFN.
Evansville Tower 118.7 122.5R **Gnd Con** 121.9
Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T
VFR ADV: Ctc App Con on 119.4
ILS 109.9 I–EVV Apch Brg 215° BC unusable **LOM:** 219/EV
Evansville (H) VORTAC 113.3/EVV 12.4NM to fld.

FT. WAYNE
§BAER FIELD *IFR* 6SSW **FSS:** FORT WAYNE on Fld.
801 H80/4–22(3) (S–90, T–120, TT–) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 22
Remarks: P-line SE. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9. Jet barrier rnwy 4–22.
Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6

INDIANA—*Continued*

Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.
ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW
Fort Wayne (H) BVORTAC 117.8/FWA on fld.
Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31
Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH **FSS:** SOUTH BEND

HUNTINGBURG RBn MHW 239/HNB

§INDIANAPOLIS MUNI (Weir Cook) *IFR* 7SW
FSS: INDIANAPOLIS on Fld
797 H100/4–22(2) (S–100, T–150, TT–270) BL6,8A,9,10,11 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 **RVR:** Rnwy 4, 31
Remarks: U.S. Customs lndg rgts arpt. Fee multi-eng commercial acft.
Tower 120.9 126.2 122.5R 116.3T
‡Clrnc Del 125.7 **Gnd Con** 121.9
ATIS 110.5
Radar Services:
App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.5 or 118.1
PAR[3] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN
110.5 I–COA Apch Brg 313° **LOM:** 232/CO
(H) BVORTAC 116.3/IND 142° 6.1NM to fld.
RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4
VHF/DF Ctc FSS.
Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI **FSS:** SOUTH BEND

KOKOMO (L) BVORTAC[1] 109.8/OKK **FSS:** INDIANAPOLIS
RBn MHW 227/OKK
Remarks: [1]Effective Oct 17.

LAFAYETTE
§PURDUE UNIVERSITY *IFR* 1SW **FSS:** LAFAYETTE on fld
605 H54/10–28(2) (S35 T53 TT80) BL5 S3 F5 JP1
Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.
ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA
Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU **FSS:** TERRE HAUTE

MARION (T) BVOR 108.6/MZZ **FSS:** INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI **FSS:** FORT WAYNE

MUNCIE
§DELAWARE COUNTY (Johnson Fld) *IFR* 3N
FSS: INDIANAPOLIS (DL)
937 H51/14–32(2) (S–70, T–90, TT–150) BL4 S5 F4 JP1 U2
Remarks: P-line in NW apch 3480′ off end rnwy 14.
Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9
Muncie (L) BVOR 113.7/MIE
Remarks: [1]Oper 1200–0400Z.

NABB (L) BVOR 113.5/ABB **FSS:** LOUISVILLE

RICHMOND (L) BVOR 110.6/RID **FSS:** DAYTON
RBn MHW 385/RID

INDIANA—*Continued*

SCOTLAND (L) BVORTAC 111.2/SCJ FSS: TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB FSS: INDIANAPOLIS

SOUTH BEND
§ST. JOSEPH COUNTY ***IFR*** 3NW FSS: SOUTH BEND on Fld
785 H60/9–27(4) (S–110, T–145, TT–) BL4,6,8A,9 S4
F5, JP1 U2 **RVV:** Rnwy 27
Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.
South Bend Tower 118.9 122.5R 115.4T 109.3T
Gnd Con 121.9
South Bend App Con 121.0 122.5R 115.4T 109.3T
VFR ADV: Ctc App Con on 121.0
ILS 109.3 I–SBN Apch Brg 269° **LOM:** 341/SB
South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.
VHF/DF Ctc FSS.

TERRE HAUTE
§HULMAN FIELD ***IFR*** 5E FSS: TERRE HAUTE on Fld
585 H90/5–23(3) (S–100, T–150, TT–270) BL4,6 S3 F4, JP1
U2
Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18–36 clsd to acft over 25,000 lbs. Jet barrier rnwy 5–23.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 122.5R 118.3
VFR ADV Ctc App Con on 123.8
ILS 109.7 I–HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
VHF/DF Ctc FSS.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT FSS: LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK FSS: FT. WAYNE

IOWA

AMES RBn MHW 275/AMW FSS: DES MOINES
Remarks: Operd by city.

ATLANTIC RBn MHW 365/AIO FSS: OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL FSS: BURLINGTON

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§CEDAR RAPIDS MUNI ***IFR*** 5SSW FSS: CEDAR RAPIDS on Fld
863 H70/8–26(2) (S–45, T–90, TT–375) BL4,6,8A,9,11 S–5
F4, TP–1 –JP1 U2 **REIL** Rnwy 26
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 119.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I–CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBN MHW 375/CCY FSS: MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN FSS: BURLINGTON

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§DES MOINES MUNI ***IFR*** 3SW FSS: DES MOINES on Fld
957 H90/12–30(3) (S–100, T–180, TT–350) BL4,6,8A,9,11 S–5
F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17–35 clsd to acft over 25,000 lbs.
DT Memorial Day—Labor Day.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6

IOWA—*Continued*

ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi
Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I–DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ FSS: CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD FSS: MASON CITY

IOWA CITY (L) BVORTAC 111.0/IOW FSS: CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW FSS: DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK FSS: BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN FSS: DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW FSS: MASON CITY

NEOLA (L) BVORTAC 117.1/EOL FSS: OMAHA

NEWTON (L) BVOR 112.5/TNU FSS: DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM FSS: OTTUMWA

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

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§SIOUX CITY MUNI ***IFR*** 6S FSS: SIOUX CITY
1097 H90/13–31(3) (Max 2.25) BL4,6,8A,9,11 S–5
F4, JP–1 U2 **RVV:** Rnwy 31 **REIL:** Rnwy 13
Remarks: First 1500′ rnwy 22 not visible to tower. Arresting gear rnwy 13–31.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I–SUX Apch Brg 307° **LOM:** 414/SU
VHF/DF Ctc twr
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
Remarks: LOM is MHW.

SPENCER RBn MHW 257/SPW

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

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§WATERLOO MUNI ***IFR*** 4NW FSS: WATERLOO on Fld
870 H54/12–30(3) (S–100, T–180, TT–305) BL4,8A,9 S–5
F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
App Con 125.8 122.5R 109.9T 108.2T
VFR ADV Ctc App Con on 125.8
ILS[1] 109.9 I–ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN FSS: LACROSSE

KANSAS

ANTHONY (L) BVOR 112.9/ANY FSS: WICHITA

CHANUTE (L) BVOR 109.2/CNU FSS: CHANUTE

DODGE CITY (L) BVORTAC 108.2/DDC FSS: DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP FSS: EMPORIA

FORT RILEY (L) VORW 109.4/FRI FSS: SALINA
RBn MHW 317/FRI

GARDEN CITY (H) BVORTAC 113.3/GCK FSS: GARDEN CITY
RBn H–SAB 257 /GCK

GOODLAND (L) BVORTAC 115.1/GLD FSS: GOODLAND

GREAT BEND RBn MHW 308/GRB FSS: RUSSELL

KANSAS—*Continued*

HILL CITY (H) BVORTAC 113.7/HLC FSS: HILL CITY

§HUTCHINSON MUNI *IFR* 3E FSS: WICHITA (DL)
1542 H70/13-31(3) (S-50, T-65, TT-103) BL4,6,8A,9 S5 F4 JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Rnwy 31 threshold displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 125.5 122.5R 118.5 116.8T
VFR ADV Ctc App Con on 125.5
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP FSS: CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE FSS: KANSAS CITY
746 H61/17-35(4) (S-30, T-50, TT-85) BL6 S5 F-5, JP-1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys. Rnwy 17-35 only rnwy avbl ngts.
Tower[3] 119.1 126.2 122.5R ~~121.6~~ **Gnd Con** 121.7
Radar Services:
Kansas City App Con 126.2 122.7R 121.1[1] 118.9[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Opers 0600-2200 daily, during hrs twr not in 2200-0600 tfc advisories will be furnished by Kansas City twr on 119.1.

LIBERAL (H) BVORTAC 112.3/LBL FSS: GARDEN CITY

McCONNELL (L)VORW 117.3/IAB

MANHATTAN (T) BVOR 110.2/MHK FSS: SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO FSS: SALINA

OSWEGO (L) BVOR 117.6/OSW FSS: JOPLIN

OTTAWA (L) VORW 111.6/TOE

PRATT RBn HW 356/PTT FSS: DODGE CITY

RUSSELL (L) BVOR 114.5/RSL FSS: RUSSELL

SALINA MUNI 3 SW FSS: SALINA
1271 H133/17-35(2) (S-100, T-185, T-350) BL6 S5 F4 U2
Tower[1] 119.3 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R
(H)BVORTAC 115.3/SLN 183° 4.2NM to fld.
Remarks: [1]Oper 0600-2200 lcl time.

TOPEKA
§PHILIP BILLARD MUNI *IFR* 3NE FSS: TOPEKA on Fld
880 H51/13-31(3) (S-70, T-100, TT-175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
Olathe Dep Con 120.5 122.5R
ILS[1] 109.5 I-TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

WICHITA
§BEECH *IFR* 5E FSS: WICHITA (DL)
1387 H50/18-36(3) F4
Remarks: P-lines N, S.
Tower[1] 119.9 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Oper 1400-2300Z Mon-Fri. Sat. 1300-1730Z. Clsd Sun and holidays.

§WICHITA MUNI *IFR* 5SW FSS: WICHITA on Fld
1332 H73/1-19(2) (S-100, T-188, TT-350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr 9NM NNW.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS[1] 110.3
Radar Services: (BCN)
Wichita App Con 120.1 120.6 134.1 125.7 122.7R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I-ICT Apch Brg 011° **LOM:** 332/IC
(H) BVORTAC 113.8/ICT 162° 4.3NM to rnwy 14.
RBn H-SAB 332/IC 011° 4.1 NM to rnwy 1
Remarks: [1]Oper 0700-2100 lcl time. LOM is H-SAB.

KENTUCKY

ASHLAND RBn MHW 385/AKY **FSS:** HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG **FSS:** BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC **FSS:** LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT **FSS:** BOWLING GREEN

FALMOUTH (L) BVOR 109.0/FLM **FSS:** CINCINNATI

FORT KNOX (T) VOR 109.6/FTK
RBn MH 396/FTK

LEXINGTON
§BLUE GRASS FIELD *IFR* 5W **FSS:** LEXINGTON on Fld
978 H55/4-22(3) (S-95, T-128, TT-284) BL4,6,8A,9 S5 F5, JP-5 U2 **RVV:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.
Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd Con 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I-LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3NM to fld
Lexington RBn MHW 242/LE 042° 3.5NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ **FSS:** LONDON

LOUISVILLE
§BOWMAN FIELD *IFR* 5SE **FSS:** LOUISVILLE on Fld
549 H43/6-24(3) (Max 30) BL4,11 S-5 F-4, JP-4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

§STANDIFORD FIELD *IFR* 4S **FSS:** LOUISVILLE (DL)
497 H78/1-19(3) (S-60, T-90, TT-200) BL4,6,8A,9,14,15 S-4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1
Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7

KENTUCKY—*Continued*

Radar Services:
App Con 124.5 126.2 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I–SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I–LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF Ctc twr.
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS FSS: LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB FSS: HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO FSS: LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB FSS: EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK FSS: PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK FSS: HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG FSS: LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX FSS: ALEXANDRIA
RBn HW 251/AEX

BARKSDALE (L) VOR 114.8/BAD
RBn HW 379/BAD

BATON ROUGE
§RYAN *IFR* 4 N FSS: BATON ROUGE on Fld
70 H60/4–22 (3) (S–137, T–175, TT–340) BL4, 6, 11 S5
F4, JP5 U2 **REIL:** Rnwy 13
Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 120.3 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW
Tower 118.3 122.5R **Gnd Con** 121.9
Baton Rouge App Con 120.3 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT
Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (T) BVOR 108.8/ESF FSS: ALEXANDRIA

GRAND ISLE (H) BVORTAC 113.5/GNI FSS: NEW ORLEANS
RBn HH–SAB 236●/GNI

HARVEY (L) BVORTAC 112.4/HRV FSS: NEW ORLEANS

§LAFAYETTE MUNI *IFR* 2 SE FSS: LAFAYETTE on Fld
42 H51/1–19(2) (S–29, T–47, TT–78) BL4, 8A, 9, 11 S5
F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1
Tower 118.5 122.5R **Gnd Con** 121.7
Clrnc Del 121.7
App Con 121.1 122.5R 118.5
ILS 109.5 I–LFT Apch Brg 193° **LOM:** 257/LF
(L)BVORTAC 110.8/LFT 344° 3.0 NM to fld.
RBn BMH 375/LFT at fld.

§LAKE CHARLES MUNI *IFR* 3 S FSS: LAKE CHARLES on Fld
16 H65/15–33(2) (S–137, T–165, TT–350) BL4,5,6,8A, 9 S5
F4, JP4 **RVV:** Rnwy 15
Remarks: Rgt tfc rnwys 15 and 22.
Tower 120.7 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 113.4T 109.1T
ILS 109.1 I–LCH Apch Brg 148° **LOM:** 353/LC
(H)BVORTAC 113.4/LCH 252° 6.3 NM to fld.
RBn BH 242/LCH 347° 2.1 NM to fld.

§MONROE *IFR* 3 E FSS: MONROE on Fld
79 H50/4–22(3) (S–50, T–75, TT–135) BL4,6,8,9 S5
F4, JP4 U2

LOUISIANA—*Continued*

Remarks: Apch to runwys 17–35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 119.1 122.5R
ILS[1] 109.5 I–MLU Apch Brg 039° **LOM:** 219/ML
(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.
Remarks: [1]Glide slope unusable below 320′ MSL.

NEW ORLEANS
§NEW ORLEANS-LAKEFRONT *IFR* 4 NE **FSS:** NEW ORLEANS on Fld
10 H57/17–35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2
Remarks: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 290′ N. 4424′ avbl lndg rnwy 35. 4186′ avbl lndg rnwy 17. No ngt operns rnwy 8–26. 1046′ (1049′ MSL) TV twr 8 NM S. 1049′ MSL) TV twr 7 NM SE.
Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7
Radar Services:
New Orleans App Con 125.5 122.7R 118.1
New Orleans Dep Con 120.6

§NEW ORLEANS INTL-MOISANT FLD *IFR* 10 W
FSS: NEW ORLEANS (DL)
3 H92/10–28(3) (S-180, T-225, TT–425) BL4,6,8A,9,11,14,15
S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10
Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300–1700Z Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28 threshold displaced 720′ SW. Usable length rnwy 28—8507′; rnwy 10–9227′. 720′ E of rnwy 28 threshold usable tkof only with approval ctl twr.
Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9
Radar Services:
New Orleans App Con [1]125.5 122.7R 118.1 109.9T
New Orleans Dep Con 120.6
Tfc Info Ctc App Con on 125.5, for other arpts in or transversing the area ctc App Con on 118.1
ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.
Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.
Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.
ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS
New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.
New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 10.
VHF/DF Ctc twr.
Remarks: [1]Acft transitioning New Orleans NAS MCC freq 126.0 during above 5000′; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

SHREVEPORT
§GREATER SHREVEPORT *IFR* 4 SW FSS: SHREVEPORT on Fld
257 H73/13–31(2) (S–83, T–120, TT–201) BL4, 6, 8A, 9, F4
RVV: Rnwy 13
Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
Tfc Info Ctc App Con on 118.5
ILS 110.3 I–SHV Apch Brg 136X **LOM:** 230/SH
Shreveport RBn H–SAB 230●/SH 136° 3.6 NM to rnwy 14.
Remarks: LOM is H-SAB

§SHREVEPORT DOWNTOWN *IFR* 2 N FSS: SHREVEPORT (DL)
179 H45/14–32(3) (S30) BL4 S5 F4
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
(T)VOR 108.6/DTN at fld.
Shreveport (H) BVORTAC 117.4SHV 158° 16 NM to fld.

LOUISIANA—*Continued*

TIBBY (L) BVORTAC 112.0/TBD **FSS:** NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA **FSS:** LAFAYETTE

MAINE

AUGUSTA (L)BVORTAC 111.4/AUG **FSS:** AUGUSTA
RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR **FSS:** OLD TOWN
Rng SBRAZ[1] 239/BW
Remarks: [1]Reliable reception distance 65 NM.

BAR HARBOR RBn MHW 320/BHB **FSS:** OLD TOWN

BRUNSWICK (L) VOR 116.2/NHZ
Rng MRLZ[1] 368/NZ
Remarks: [1]Reliable reception distance 50 NM.

HOULTON (L)BVOR 108.2/HUL **FSS:** HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE **FSS:** PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT **FSS:** MILLINOCKET
RBn H–SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU
Remarks: Owned and operd by Airport Commission.

§PORTLAND MUNI *IFR* 2W **FSS:** PORTLAND on Fld
66 H50/11–29(2) (S–94, T–116, TT–) BL 5, 6, 8A, 9, 10 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 29 **RVV:** Rnwy 11
Remarks: U.S. Customs lndg rgts arpt. ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27′ lctd at the end of rnwy and 800′ rgt cntrline. Lesser penetrations lctd 250′–430′ from end of rnwy and 720′–890′ left cntrline. 1890′–2180′ from end of rnwy and 900′–1090′ left cntrline.
Tower 120.9 122.5R 109.9T **Gnd Con** 121.9
App Con 120.9
ILS 109.9 I–PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI **FSS:** HOULTON

PRINCETON (L)BVOR 114.3/PNN **FSS:** HOULTON

ROCKLAND RBn MHW 353/RKD **FSS:** AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR **FSS:** HOULTON
Remarks: Reliable reception distance 40 NM.

WATERVILLE RBn MHW 375/AVI **FSS:** AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG

ANDREWS (L)VORTAC 113.1/ADW

BALTIMORE
§FRIENDSHIP INTL *IFR* 8 S **FSS:** WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–100, T–220, TT–500) BL6, 8A, 9, 10, 11 S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10
REIL rnwy 4, 22
Remarks: U.S. Customs lndg rgts arpt. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turbop op due noise complaints.
Tower 118.7 122.7R 109.7T **Gnd Con** 121.9
Radar Services:
Baltimore App Con 119.7 125.9[2]
Baltimore Dep Con 120.4
Tfc Info: Expanded radar service avbl.
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.
ILS[3] 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA
Baltimore (L) BVORTAC 113.8/BAL on fld.
VHF/DF Ctc twr.

MARYLAND—*Continued*

Remarks: [1]101°–281° [2]282°–100° [3]Glide slope unusable from 400′ inside MM to touchdown. **VOT:** 108.2.

CUMBERLAND RBn MHW 317/CBE **FSS:** MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK **FSS:** MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI **FSS:** WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV **FSS:** MORGANTOWN

HAGERSTOWN MUNI *IFR* 4N **FSS:** MARTINSBURG
704 H54(2) BL 4 S5 F5 JP1 U1 (LC 733–1374)
Fairchild Tower:[1] 118.5 126.2 123.1 ~~121.5~~
VFR ADV: Ctc Washington, Dulles Intl APP CON
Hagerstown (L) BVOR 109.8/HGR
Remarks: [1]Opers 7:30–1600 lcl time Mon-Fri. Operd by Fairchild Hiller Acft Corp.

NOTTINGHAM (L)BVORTAC 116.0/OTT **FSS:** WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT **FSS:** SALISBURY

POOLESVILLE RBn MHW 280/PLV **FSS:** WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY **FSS:** SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL **FSS:** SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI **FSS:** WASHINGTON

MASSACHUSETTS

BEDFORD
§LAURENCE G HANSCOM FLD *IFR* 1 S **FSS:** BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11 S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29
REIL: Rnwys 23, 29 **RVV:** Rnwy 11
Remarks: U.S. Customs lndg rgts arpt. 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. Jet barriers and arresting gear rnwy 11–29. FEE for commercial acft over 5000′ lbs.
Tower 118.5 122.5R **Gnd Con** 121.7
Radar Services:
Boston App Con 124.4
ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE
Bedford (L)VOR 116.0/BED on fld.
Bedford RBn HW 512/BE 112° 4.0 NM to fld.
VHF/DF Ctc twr.
Remarks: LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF **FSS:** BOSTON

BOSTON
§LOGAN INTL *IFR* 1 E **FSS:** BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A[1], 9[2], 10 S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L
RVV: Rnwy 22L
Remarks: U.S. Customs lndg rgts arpt. FEE. Lndg threshold rnwy 4R displaced 2507′ to NE, 10,000′ avbl except lndg length toward NE restricted to 7493′ during IFR conditions anl hrs of darkness. Rnwy 4L–22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. [1]Non-standard cntrline apch lgt sys. [2]Sequence flashers extend only 1200′.
Boston Tower 118.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7
Radar Services: (BCN)
Boston App Con [2]120.6 [1]126.5 126.2 124.4 122.5R 110.3T 382T
Boston Dep Con 119.1 124.4
Tfc Info: Expanded radar service avbl.
PAR[4] Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.

MASSACHUSETTS—*Continued*

ILS 110.3 I-BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I-LIP[3] Apch Brg 330° BC unusable **LOM:** 346/LI
Boston (H)VORTAC 112.7/BOS on fld.
Boston RBn H-SAB 382●/BOS 234° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219′ MSL. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR **FSS:** WINDSOR LOCKS

DEVENS RBn MHW 352/AVE

FALL RIVER RBn MHW 395/FLR **FSS:** NANTUCKET

FITCHBURG RBn MHW 206/FIT **FSS:** BOSTON

GARDNER (L)BVORTAC 110.6/GDM **FSS:** WORCESTER

HYANNIS
§**BARNSTABLE MUNI** ***IFR*** 1 N **FSS:** NANTUCKET (DL)
52 H55/6-24(2) (S-63, T-110, TT-) BL5, 6, 8A, 9, 11 S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6
Remarks: Poles SE, SW. Rnwy 11-29 usable Oct 15-Apr 30 VFR days & by pilot req only.
Hyannis Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 127.7 134.1 116.8T
Otis Dep Con 127.7
ILS[1] 110.5 I-HYA Apch Brg 245° BC unusable **LOM:** 342/HY
Hyannis (L)BVORTAC 108.6/HYA 241° 3.2 NM to rnwy 24.
Remarks: [1]Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM **FSS:** BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY **FSS:** NANTUCKET

§**NANTUCKET MEMORIAL** ***IFR*** 3 SE **FSS:** NANTUCKET on Fld
47 H50/6-24(2) (S-31, T-55, TT-) BL5, 6, 8A, 9 S3 F4 DT2 **RVV:** Rnwy 24
Tower [1]118.3 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 118.2 134.1 116.8T
Otis Dep Con 118.2
ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC
Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.
VHF/DF: ctc FSS.
Remarks: [1]Oper 1200-0400Z advisory svc other times.

§**NEW BEDFORD MUNI** ***IFR*** 2 NW **FSS:** NANTUCKET (DL)
79 H50/5-23(2) (S-63, T-110, TT-) BL5,6,8 S5 F4 TP1 U2 DT2
Remarks: U.S. Customs lndg rgts arpt. ILS apch zone for rnwy has unlgtd trees protruding above the 7:1 slope.
Tower 121.3 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I-EWB Apch Brg 053° **LOM:** 274/EW

NORWOOD RBn MHW 212/OWD **FSS:** BOSTON

PITTSFIELD RBn MHW 343/PSF **FSS:** ALBANY

PROVINCETOWN MHW 230/PVC **FSS:** NANTUCKET
Operd Mass Aero Comm

WESTFIELD
§**BARNES MUNI** ***IFR*** 3 N **FSS:** WINDSOR LOCKS (LC 739-7132)
270 H90/2-20(3) (S-63, T-110, TT-195) BL5, 6 S3 F4, JP4 DT2
Remarks: U.S. Customs lndg rgts arpt. Jet barrier rnwy 2-20.
Westfield Tower[1] 121.3 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 120.0 134.1 109.2T 114.0T
Westfield Dep Con: 120.0 134.1

MASSACHUSETTS—*Continued*

Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 1200-0400Z.

WHITMAN (L)BVORTAC 109.0/HTM **FSS:** BOSTON

§**WORCESTER MUNI** ***IFR*** 3 W **FSS:** WORCESTER on Fld
1009 H70 (11-29(3) (S-137, T-180, TT-297) BL6, 7, S5 F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: U.S. Customs lndg rgts arpt. Rnwy 29 threshold displaced 150′.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I-ORH Apch Brg 332° BC unusable **LOM:** 282/OR
Remarks: [1]ILS glide slope unusable below 1209′ MSL acct roughness 750′ inside MM to lndg threshold. Auto and manual apchs below alt not authorized.

MICHIGAN

ALMA RBn MH 329/AMN **FSS:** SAGINAW

ALPENA
§**PHELPS COLLINS** ***IFR*** 6 W **FSS:** PELLSTON (DL)
689 H90(18-36 (3) (S95-T125-TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: U.S. Customs lndg rgts arpt. Rnwy 18 9000′ avbl lndg, 8000′ tkoff. Rnwy 36 8000′ avbl lndg. Rnwy 36 threshold displaced 1000′. Jet barrier 1050′ S of apch end rnwy 18. GCA(ASR-PAR) VFR trng status for availability ctc twr, GCA civil freqs 118.5, 134.1 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5R
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN 184° 4.4 NM to fld.

BATTLE CREEK
§**W K KELLOGG REGIONAL AIRFIELD** ***IFR*** 3 W **FSS:** JACKSON (DL)
941 H70/4-22(4) (S-80, T-140, TT-255) BL4,6,8A,9 S5 F5 TP-1
Remarks: Rnwys 9-27, 18-36 clsd during winter months. E ramp S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I-BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141′ MSL. LOM is MHW.

BELLAIRE RBn HW 251/ATM **FSS:** TRAVERSE CITY

BENTON HARBOR RBn MHW 400/BEH **FSS:** SOUTH BEND
Remarks: Privately owned and operated. Public instr flt rule apch procedure predicated on facil.

BOYNE FALLS RBn MHW 263/BFA **FSS:** PELLSTON
Remarks: VFR use only.

CADILLAC RBn MHW 269/CAD **FSS:** TRAVERSE CITY

CARLETON (L)BVORTAC 115.7/CRL **FSS:** DETROIT

CHARLEVOIX RBn MHW 222/CVX **FSS:** PELLSTON

COLDWATER RBn MHW 224/CWM **FSS:** JACKSON

DETROIT
§**DETROIT CITY** ***IFR*** 5 NE AOE **FSS:** DETROIT on fld
626 H51/15R-33L(3) (S250 T-350 TT) BL4, 11 S5 F4, JP1 U2 **REIL:** Rnwy 15
Remarks: 1063′ (1749′ MSL) 1057′ (1738′ MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0
ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226

MICHIGAN—*Continued*

ILS 111.3 I-DET Apch Brg 146° BC unusable **LOM** 338/DE
VHF/DF: ctc FSS
Remarks. VOT: 109.8

§DETROIT METROPOLITAN WAYNE *IFR* 13 SW AOE **FSS:** DETROIT (DL)
639 H105/3L–21R (4) (S–200, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R **REIL:** Rnwy 3R
Remarks: Rnwy 15 threshold displaced 650′. Fee.
Metro Tower 121.1 126.2 122.7R 122.7R 109.3T 110.7T
‡Clrnc Del 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[2] 125.15[1] 123.7[2]
Metro Dep Con 118.4[1] 123.7[2]
Tfc Info Ctc 123.7, 124.9 App Con.
ASR Rnwy 9, 3L, 3R, 21L, 27, 33 Ceil 400 Vsby 1 mi Min Alt 1039 Rnwy 21R Ceil 500 Vsby 1 mi Min Alt 1139
ILS 109.3 I-DTW Apch Brg 032° **LOM:** 388/DT
110.7[3] I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H–SAB 388●/DT 037° 6.6 NM to rnwy 3R
Remarks: LOM is SAB. [1]001–180, [2]181–360, [3]ILS unusable for auto apchs below 400′ AGL. Lclzr unusable beyond 12 mi outside 20° E side front crs. **VOT:** 109.0.

§WILLOW RUN *IFR* 19 SW **FSS:** DETROIT (DL)
716 H75/5–23(6) (S–60, T–90, TT–200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500′ rnwy 9L not visible from twr. 320′ overrun area SW end rnwy 5R–23L usable only tkoff rnwy 5R lndg rnwy 23L.
Tower 121.3 122.6R ~~121.5~~ 109.5T 114.9T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro Dep Con 118.4 123.7
Tfc Info Ctc Metro App Con on 124.9 or 123.7
ILS 109.5 I-YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF Ctc FSS
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

ESCANABA (L) BVOR 110.8/ESC **FSS:** MARQUETTE (DL)

FLINT
§BISHOP *IFR* 3 SW **FSS:** LANSING (DL)
781 H56/9–27 (S–40, T–60, TT–110) BL4,5,6,8A,9 S5 F4 U2 **RVV:** Rnwy 9.
Remarks: Rnwy 18 threshold displaced 635′.
Flint Tower 119.5 126.3 122.5R ~~121.5~~ 111.6T 109.9T
Gnd Con 121.9
VFR ADV Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

GAYLORD (T) BVOR 109.2/GLR **FSS:** PELLSTON

GRAND RAPIDS
§KENT COUNTY *IFR* 6 SE **FSS:** SAGINAW
793 H66/8–26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1 U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26. **REIL:**[1] Rnwys 8, 36
Remarks: [1]Non-Fed.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS[1] 109.7 I–GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 970′ MSL.

MICHIGAN—*Continued*

GROSSE ILE RBn HW 414/NFB

HOUGHTON (L)BVOR 112.8/CMX **FSS:** HOUGHTON
RBn H–SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT **FSS:** MARQUETTE

IRONWOOD (L)BVOR 108.8/IWD **FSS:** MARQUETTE

JACKSON
§REYNOLDS MUNI *IFR* 2W **FSS:** JACKSON on Fld
1000 H53/5–23(2) (S–60, T–80, TT–) BL5,11 S5 F4 U2
REIL: Rnwy 23 (1200–0400Z)
Remarks: Rnwy 5 threshold displaced 559′. Rnwy 31 threshold displaced 475′.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clrnc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
Jackson RBn MHW 281/JXN 219° 2.1 NM to fld.
Remarks: [1]Oper 1200–0400Z.

§KALAMAZOO MUNI *IFR* 1SE **FSS:** SOUTH BEND (DL)
874 H53/17–35(3) (S–30, T–50, TT–85[1]) BL4,6,8A,9 S5 F4 JP5
Remarks: [1](S–40, T–65, TT–110) avail rnwys 5–23 & 9–27. Rnwy 5 threshold displaced 496′ NE, rnwy 9 threshold displaced 325′ E, rnwy 27 threshold displaced 225′ W.
Tower[1] 118.3 122.7R ~~121.5~~ 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[2] 110.9 I–AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200–0400Z. Lclzr and glide slope monitored by ATU. LOM unmonitored 2300–0700.

KEELER (L) BVORTAC 115.1/ELX **FSS:** SOUTH BEND

KINCHELOE (L) VOR 108.6/INR
RBn MHW 410/IN

LANSING
§CAPITAL CITY *IFR* 3NW **FSS:** LANSING on Fld
859 H65/9–27(2) (S–30, T–40, TT) BL5,6,8A,11 S5 F4, JP1 **RVR:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037′ (1889′ MSL) twr 8 NM ESE and 1023′ (1923′ MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R ~~121.5~~ 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.
ILS 110.1 I–LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL **FSS:** TRAVERSE CITY

MARQUETTE (L) BVORTAC 109.0/MQT **FSS:** MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM **FSS:** GREEN BAY

MT. PLEASANT (L) BVOR 109.8/MOP **FSS:** SAGINAW

§MUSKEGON CO *IFR* 4S **FSS:** MUSKEGON on Fld
628 H56/14–32(3) (S–40, T–65, TT–110) BL6,8A,9 S5 F4 U2 **RVR:** Rnwy 32
Remarks: Rnwy 36 threshold displaced 300′. Rnwy 14 threshold displaced 300′.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 I–MKG Apch Brg 317° BC unusable **LOM:** 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828′ MSL.

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

MICHIGAN—*Continued*

PELLSTON (L) BVOR[1] 114.0/PLN FSS: PELLSTON
RBn (H) 332/PLN
Remarks: [1]Class to be BVORTAC Oct 24.

§PONTIAC MUNI *IFR* 5W FSS: DETROIT (DL)
974 H53/9-27(3) (S-40, T-65, TT-110) BL6 S5 F4 U2
Tower [1]120.5 122.5R ~~121.6~~ 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK 119° 4.9 NM to fld.
Remarks: [1]Oper 0700-2300 lcl time.

PULLMAN (H) BVORTAC 112.1/PMM FSS: SOUTH BEND

REED CITY RBn MHW 275/RCT FSS: MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW FSS: SAGINAW on fld
667 H56/5-23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 0700-2300 lcl time.

SALEM (L) BVORTAC 114.3/SVM FSS: DETROIT

SAULT STE MARIE (H) BVORTAC 112.2/SSM FSS: SAULT STE MARIE
RBn H-SAB 400●/SSM.

SAWYER (H) VOR 117.5/SAW
RBn HW 359/SAW

THREE RIVERS RBn MHW 407/HAI FSS: JACKSON

TRAVERSE CITY (L) BVOR 112.4/TVC FSS: TRAVERSE CITY
RBn H-SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC FSS: MUSKEGON

WHITEFISH (L) BVORTAC 116.6/FSP FSS: SAULT STE MARIE

MINNESOTA

ALEXANDRIA (L) BVOR) 112.8/AXN FSS: ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM FSS: ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE FSS: HIBBING

BEMIDJI (L) BVOR 108.6/BJI FSS: HIBBING

BRAINERD (L) BVOR 109.2/BRD FSS: ALEXANDRIA

DARWIN (L) BVORTAC 109.0/DWN FSS: MINNEAPOLIS

§DULUTH INTL *IFR* 5NW (AOE) FSS: HIBBING
1429 H101/9-27(3) (S-80, T-112.5, TT-205) BL4,6,8A,9,10
F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9-27
Remarks: Jet barrier 2650′ from apch end rnwy 9 and 600′ from apch end rnwy 27. 1000′ overruns rnwy 9-27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I-DLH Apch Brg 087° **LOM:** 379/DL
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H-SAB 379●/DL 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H-SAB. [1]Glide slopes unusuable beyond 12NM.

EVELETH (T) BVOR 108.2/EVM FSS: HIBBING

MINNESOTA—*Continued*

FERGUS FALLS (T) BVOR 110.4/FFM FSS: ALEXANDRIA
Remarks: State owned.

FAIRMONT (T)BVOR 110.2/FRM FSS: MASON CITY
Remarks: VFR use only.

FARMINGTON (L) BVOR 115.7/FGT FSS: MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ FSS: HIBBING
Remarks: VFR use only.

HIBBING (L) BVOR 110.8/HIB FSS: HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL FSS: HIBBING

MANKATO (L) BVOR 110.8/MKT FSS: MINNEAPOLIS

MINNEAPOLIS
§CRYSTAL *IFR* 8NW FSS: MINNEAPOLIS (DL)
869 H32/13L-31(2) (S-21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Rnwy 5L-23R threshold displaced 400′ lndg distance avbl 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600-2200.

§FLYING CLOUD *IFR* 11SW FSS: MINNEAPOLIS (DL)
909 H36/9L-27R(3) (S-14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
(L) BVOR 111.8/FCM at fld.
Remarks: [1]Oper 0600-2200.

§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) *IFR* 6S
FSS: MINNEAPOLIS on Fld
840 H100/11R-29L(3) (S-110, T-150, TT-270) BL6,8A,9,10,11 S5, F5 JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4, 29L **RVV:** Rnwy 29L
REIL Rnwy 11R, 22
Remarks: U.S. Customs lndg rgts arpt. First 1000′ NE end rnwy 4-22 clsd to non-mil acft. Rnwy 11L-29R threshold displaced 610′ SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2
117.3T 110.37 109.39
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 200 Vsby ½ mi Min Alt 1040
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295° **LOM:**[2] 266/MS
109.3[1] I-APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H-SAB 266●/MSP 287° 2.4NM to fld.
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusabe beyond 16 nmi. [2]LOM is H-SAB. **VOT:** 111.0.

NEW ULM RBn MHW 272/ULM
Remarks: VFR use only. Owned and operated by the state.

MINNESOTA—*Continued*

NODINE (H) BVORTAC 117.9/ODI **FSS:** LaCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD **FSS:** GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF **FSS:** REDWOOD FALLS

§ROCHESTER MUNI *IFR* 7S **FSS:** ROCHESTER on Fld

1310 H64/13-31(2) (S-126, T-159, TT-260) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 31

Remarks: Rnwy 2-20 clsd to acft over 50,000 lbs GWT unless cross wind component rnwy 13-31 exceeds 25 knots.

Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9

VFR ADV Ctc App Con on 119.8

App Con 119.8 122.5R 112.0T 109.9T

ILS 109.9[1] I-RST Apch Brg 307° **LOM:** 254/RS

(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.

Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC **FSS:** MINNEAPOLIS

Remarks: VFR use only.

ST PAUL

§ST PAUL-DOWNTOWN (Holman Fld) *IFR* 1S **FSS:** MINNEAPOLIS (DL)

703 H55/12-30(3) S-54, T-87, TT-160)

BL2,5,11 S5 F5, JP5 U2 **REIL:** Rnwy 30

Remarks: 4562′ avbl lndg rnwy 12.

St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7

Radar Services:

Minneapolis App Con 120.0 121.2 126.5 122.7R 117.3T 111.8T 110.3T 109.3T 266T

Minneapolis Dep Con 119.3

Tfc Info Ctc Minneapolis App Con on 126.5.

St Paul (T)BVOR 108.6/STP 289° 4.6NM to fld.

Remarks: [1]Oper 0600-2200 lcl time.

THIEF RIVER FALLS (L) BVOR 108.4/TVF **FSS:** GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

WILLMAR (T) BVOR 108.4/ILL **FSS:** REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA **FSS:** LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG **FSS:** REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS **FSS:** TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV **FSS:** MOBILE

GREENVILLE (T) BVOR 110.2/GLH **FSS:** GREENWOOD

GREENWOOD (H) BVORTAC 114.7/GRW **FSS:** GREENWOOD

§GULFPORT MUNI *IFR* 3NE **FSS:** MOBILE (LC 436-4242)

28 H90/13-31(3) (S-80, T-120, TT-210) BL4,6 S5 F5, JP1 U2

Remarks: Arrest barrier in oper on Rnwy 13-31. J-bar avbl Rnwy 13-31 on 5 min notice. 1000′ overruns ea end Rnwy 13-31.

Tower 121.3 122.5R 109.0T **Gnd Con** 121.9

App Con 124.6 122.5R 109.0T

(L) BVORTAC 109.0/GPT on fld.

HATTIESBURG (L) BVORTAC 110.6/HBG **FSS:** McCOMB (LC 582-2009)

HOLLY SPRINGS (L) BVOR 112.4/HLI **FSS:** MEMPHIS

JACKSON

§HAWKINS FIELD *IFR* 2NW **FSS:** JACKSON

343 H54/16-34(2) (S-30, T-45, TT-80) BL4,6 S5 F4 JP1 U2

Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW. SW 1615′ (1949′) twr 10 NM WSW.

Tower[3] 118.7 126.2 122.5R ~~121.5~~ 278T

Radar Services:

Jackson App Con 123.9[1] 125.2[2]

MISSISSIPPI—*Continued*

Jackson Dep Con 123.9 125.2

Jackson RBn H-SAB 260●/JAN 183° 2.3NM to fld.

Remarks: [1]333°-152°. [2]153°-332°. [3]1200-0400Z.

§THOMPSON FIELD *IFR* 5E **FSS:** JACKSON on Fld

345 H85/15L-33R(2) (S-120, T-150, TT-265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.

Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7

Radar Services: (BCN)

Jackson App Con 125.2[1] 123.9[2]

Jackson Dep Con 125.2[1] 123.9[2]

ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745

Tfc Info: Ctc App Con

ILS 110.5 I-JAN Apch Brg 153° **LOM:** 365/JA

Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.

VHF/DF Ctc FSS

Remarks: [1]153°-332°. [2]333°-152°.

KEESLER RBn HW 391/BIX

KEWANEE (L) BVOR 113.8/EWA **FSS:** MERIDIAN

LAUREL (L) BVOR 108.6/LUL **FSS:** MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB **FSS:** McCOMB

MERIDIAN

§KEY FIELD *IFR* 3SW **FSS:** MERIDIAN on Fld

297 H80/1-19(2) (S-45, T-120, TT-220) BL6 S3 F4, JP3 **RVV:** Rnwy 01

Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Jet barrier rnwy 1-19. Servicing Fee after 7 P.M.

Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

Meridian App Con 120.5

Meridian Dep Con 124.8

ILS 110.1 I-MEI Apch Brg 004° BC unusable **LOM:** 356/ME

Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.

Remarks: [1]Twr opers 1300-0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ **FSS:** McCOMB

PICAYUNE (L) BVOR 112.2/PCU **FSS:** NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP **FSS:** MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR **FSS:** COLUMBIA

BLUE SPRINGS (L) BVORTAC 113.6/BSP **FSS:** KANSAS CITY

BULTER (H) BVOR/DME 115.9/BUM **FSS:** KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI **FSS:** CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI **FSS:** COLUMBIA

DOGWOOD (L) BVORTAC 109.4/DGD **FSS:** SPRINGFIELD

FARLEY RBN MHW 290/FRY **FSS:** KANSAS CITY

Remarks: To be decomsnd Oct 31.

FARMINGTON (H) BVORTAC 115.7/FAM **FSS:** CAPE GIRARDEAU

FORNEY (L) VOR 110.0/TBN

RBn MH 391/TBN

HALLSVILLE (L) BVORTAC 115.4/HLV **FSS:** COLUMBIA

JEFFERSON CITY (L) BVOR 110.2/JEF **FSS:** COLUMBIA

§JOPLIN MUNI *IFR* 4NE **FSS:** JOPLIN on Fld

980 H55(3) BL4,6 S5 F4 U1

Remarks: 999′ (2049′ MSL) twr 5 NM SSW.

ILS[1] 110.3 I-JLN Apch Brg 131° **LOM:** 219/JL

Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

MISSOURI—*Continued*

KANSAS CITY
§MID-CONTINENT INTL *IFR* 15NW **FSS:** KANSAS CITY
1011 H90/18-36(1) (S-100, T-188, TT-350) BL6,8A,9
RVR: Rnwy 36
Tower 120.7 **Gnd Con** 121.8
Radar Services:
Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
ILS 110.5 I-MCI Apch Brg 005° **LOM:** 359/MC
RBn H-SAB 359/MC 005° 4.4 to rnwy 36.
Remarks: [1]E sector. [2]W sector. LOM is H-SAB.

§KANSAS CITY MUNI *IFR* 4N **FSS:** KANSAS CITY on Fld
758 H70/18-36(3) (S-110, T-165, TT-365) BL4,6,8A,9,11,13
S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36
Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.
Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9
‡Clrnc Del: 121.9
ATIS: [4]111.4
Radar Services: (BCN)
App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
Dep Con 118.1
Tfc Info: Ctc App Con
PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.
ILS[3] 109.9 I-MKC Apch Brg 187° BC unusable **LOM:** 219/MK
(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.
Riverside (T) VOR 111.4/RIS on fld.
VHF/DF Ctc twr.
Remarks: Acft approaching from 001-180° use 118.9 and/from 179°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. [4]Oper 0600-2400 lcl time
VOT: 108.6.

KIRKSVILLE (H) BVORTAC 114.6/IRK **FSS:** KIRKSVILLE

LAKE RBn HW 385/LAQ **FSS:** ST. LOUIS

MACON (L) BVOR 112.9/MCM **FSS:** KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW **FSS:** CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP **FSS:** VICHY

MARSHALL (L) BVOR/DME 109.6/MHL **FSS:** COLUMBIA

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS **FSS:** ST. LOUIS

NEOSHO (L) BVOR 116.6/EOS **FSS:** JOPLIN

READSVILLE (L) BVOR 112.0/REA **FSS:** COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW **FSS:** KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW **FSS:** ST. LOUIS

ST JOSEPH
§ROSECRANS MEMORIAL *IFR* 3WNW **FSS:** KANSAS CITY (DL)
826 H80/17-35(3) (S-60, T-160, TT-250) BL4,6,8 S5 F4
RVV: Rnwy 35
Tower 119.9 122.5R **Gnd Con** 121.9
Kansas City App Con 121.1 126.2 122.7R 118.9
Kansas City Dep Con 118.1
ILS 110.3 I-STSJ Apch Brg 352° **LOM:** 260/ST
(L) BVORTAC 108.2/STJ 167° 10.7NM to fld.

ST. LOUIS
§LAMBERT-ST LOUIS *IFR* 10NW **FSS:** ST. LOUIS on Fld
571 H100/12R-30L(4) (S-100, T-200, TT-400) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt (3 hr advance notice rqrd). Arresting gear all rnwys excp rnwy 12L-30R. Threshold lgts permly relctd 476′ SE apch end rnwy 12R.

MISSOURI—*Continued*

St. Louis Tower 118.5 126.2 122.7R **Gnd Con** 121.9
‡Clrnc Del 119.5
ATIS[4]**:** 110.3 109.7
Radar Services: (BCN)
St. Louis App Con 126.5[1] 123.7 118.1[2] 117.4T 110.3T 109.7T **St. Louis Dep Con** 119.9
Tfc Info Ctc St. Louis App Con.
PAR[3] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° **LOM:** 404/ST
109.7 I-LMR Apch Brg 117° **LOM:** 338/LM
VHF/DF Ctc twr.
St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.
St. Louis RBn (H-SAB) 338●/LM 117° 5.3NM to fld.
Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [3]Radar monitoring of instrument apchs only at pilot's request. LOM is H-SAB. [4]Opers 0600-2400 lcl. **VOT:** 111.0

§ SPIRIT OF ST. LOUIS 20W **FSS:** ST. LOUIS (DL)
462 H51/7-25(1) (S-33, T-50, TT-80) BL6 S5 F4 DT2
Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, lndgs not authorized.
Tower[1] 118.3 122.5R 121.5X **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.
Remarks: [1]Opers 1200-0300Z. [2]Southeast arrivals. [3]Northwest arrivals.

§SPRINGFIELD MUNI *IFR* 5NW **FSS:** SPRINGFIELD on Fld
1267 H56/1-19(2) (S-65, T-95, TT-165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1
Tower 119.9 122.5R **Gnd Con** 121.9
VFR ADV 125.8
App Con 125.8 122.5R 116.9T 109.9T
ILS 109.9 1-SGF Apch Brg 015° **LOM:** 404/SG
(H) BVORTAC 116.9/SGF 193° 6.8NM to fld
RBn H-SAB 254●/SGF 137° 3.6NM to fld
VHF/DF: ctc FSS.

VICHY (L) BVORTAC 117.7/VIH **FSS:** VICHY

WHITEMAN (L) VOR 109.0/SZL
RBn HW 314/SZL

MONTANA

BILLINGS
§LOGAN FIELD *IFR* 2NW **FSS:** BILLINGS on Fld
3606 H86/9-27(3) (S-130, T-200, TT-400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9
Remarks: 1000′ overrun each end rnwy 9-27.
Billings Tower 118.3 122.5R
VFR ADV: 120.5
Billings Gnd Con 121.9
Billings App Con 120.5 122.5R 114.5T 110.3T
ILS 110.3 I-BIL Apch Brg 095° **LOM:** 251/BI
Billings RBn H-SAB 400●/BIL 243° 1.4NM to fld.
VHF/DF: Avail ctc FSS.

BOZEMAN (L) BVOR 112.2/BZN **FSS:** BOZEMAN
RBn H-SAB 329●/BZN

BUTTE (L) BVORTAC 111.6/BTM **FSS:** BUTTE

CUT BANK (L) BVORTAC 114.4/CTB **FSS:** CUT BANK
RBn[1] **BH** 263/CTB
Remarks: [1]VFR use only.

MONTANA—*Continued*

DILLON (H) BVORTAC 113.0/DLN FSS: DILLON
RBn[1] BH 379/DLN
Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU FSS: MISSOULA

GLASGOW (H) VOR 113.9/GSG
RBn H 236/GSG

§GREAT FALLS INTL *IFR* 3SW FSS: GREAT FALLS on Fld
3671 H90/3-21(4) (S-60, T-80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34
Remarks: Rnwy 7-25 not authorized to acft over 64,000 lbs GWT. Jet barrier rnwy 3-21.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1 119.3 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.1 119.3 or 122.7R
ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171
ILS 110.3 I-GTF Apch Brg 341° BC unusable **LOM:** 371/GT
(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld
RBn H-SAB 371/GT 009° 0.9 NM to fld.
Remarks: LOM is H-SAB.

§HELENA *IFR* 2NE FSS: HELENA on Fld
3873 H70/8-26(3) (S-90, T-120, TT-200) BL 5,11 S5 F4, JP1 U2 **REIL** rnwy 26
Remarks: Rnwy 11-29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
(H) BVORTAC 117.7/HLN at fld.
RBn[1] SBH 317/HLN
Remarks: [1]VFR use only.

KALISPELL (L) BVOR 108.4/FCA FSS: MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT FSS: LEWISTOWN
RBn[1] SBH 353/LWT
Remarks: [1]VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM FSS: LIVINGSTON
RBn[1] BH 224/LVM
Remarks: [1]VFR use only.

MALMSTROM (L) VOR 116.3/GFA

MILES CITY (H) BVORTAC 112.1/MLS FSS: MILES CITY
RBn H-SAB 320●/MLS

§MISSOULA CO *IFR* 4NW FSS: MISSOULA on Fld
3203 H-70/11-29(3) (S-120, T-155, TT-235) BL6 S5 F4 U2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1]Oper 1300-0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA FSS: BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA FSS: SCOTTSBLUFF
RBn[1] HW 287/AIA
Remarks: [1]Owned by State.

BEATRICE (T) BVOR 110.6/BIE FSS: LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR FSS: CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

NEBRASKA—*Continued*

COLUMBUS (T) BVOR 110.4/OLU FSS: LINCOLN
Remarks: Owned by State.

§GRAND ISLAND MUNI *IFR* 4NE FSS: GRAND ISLAND on Fld
1846 H72(3) (S-42, T-65, TT-125) BL5,6,8A,9 S5 U-1 F5, JP-1
Remarks: 1000′ asphalt overrun both ends rnwy 17-35. BAK/12 arresting gear lctd 90′ in overrun rnwy 35 and 80′ in overrun rnwy 17.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1]Oper 1200-0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI FSS: GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT FSS: IMPERIAL

IMPERIAL RBn BH 391/IML FSS: IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN FSS: SIOUX CITY

KEARNEY (T) BVOR 111.2/EAR FSS: GRAND ISLAND
Remarks: Owned by state.

§LINCOLN MUNI/AFB *IFR* 4NW FSS: LINCOLN on Fld
1198 H129/17R-35(3) *(Max-15) BL6,8A,9,11 S5 F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: Rnwy 14-32 open days VFR tfc only. Rnwy 14 threshold displaced 750′ SE. Rnwy 17R-36L 1000′ asphalt each end. Ctn-jet tfc. *Rnwy 17L-35R (S31, T50, TT87).
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I-LNK Apch Brg 351° **LOM:** 385/LN
(L) BVORTAC 116.0/LNK
RBn MHW 385/LN
Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC on 124.8

McCOOK (L) BVOR 110.0/MCK FSS: NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK FSS: OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF FSS: NORTH PLATTE
RBn H-SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD *IFR* 3NE FSS: OMAHA on Fld
983 H85/14-32(2) (S-100, T-184, TT-346) BL4,8A,9,11,12 S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: U.S. Customs lndg rgts arpt. 1399′ (2549′ MSL) twr 6.5 NM W.
Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
ATIS:[3] 110.3
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R 116.3T[2]
Omaha Dep Con 124.5 118.0 122.5R[2]
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I-OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H-SAB 320●/OM 136° 4.1 NM to rnwy 14.
Remarks: [1]BC unusable beyond 16 NM. [2]Freqs for Shenandoah, Iowa. [3]Opers 0600-2300. LOM is H-SAB.

O'NEILL (H) BVORTAC 113.9/ONL FSS: GRAND ISLAND

PAWNEE CITY (H) BVORTAC 112.4/PWE FSS: LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF FSS: SCOTTSBLUFF
RBn MHW[1] 341/BFF
Remarks: [1]Operd by State.

SIDNEY (H) BVOR 115.7/SNY FSS: SIDNEY

WOLBACH (H) BVORTAC 114.7/OBH FSS: GRAND ISLAND

NEVADA

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM FSS: ELKO

BEATTY (H) BVORTAC 114.7/BTY FSS: TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD FSS: LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL FSS: TONOPAH

CURRANT (L) BVOR 113.4/URR FSS: ELY

ELKO (L) BVORTAC 114.5/EKO FSS: ELKO
RBn SBH 391/EKO

ELY (L) BVOR 110.6/ELY FSS: ELY

HAZEN (L) BVORTAC 114.1/HZN FSS: LOVELOCK

INDIAN SPRINGS RBn HW 215/INS

LAS VEGAS
§McCARRAN ***IFR*** 5S FSS: LAS VEGAS on fld.
2171 H125/7-25(3) (S-100, T-200, TT-380) BL4,6,10 S5 F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750'W end. 11,795' avbl lndg rnwy 7 and tgof rnwy 25 day/ngt. 12545' avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625' SW end. 6878' avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503' avbl lndg rnwy 19 and tgof rnwy 1 day/ngt . Rnwy 32 threshold displaced 379' SE end. 4021' avbl rnwy 32 day/ngt. 4400' avbl tkof rnwy 32 day only. 4021' avbl tkof rnwy 32 ngt only. 4400' avbl lndg rnwy 14 day only. 4021' avbl lndg rnwy 14 ngt only. 4021' avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 125.9[1] 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H-SABZ 206●/LAS 196° 8.5 NM to rnwy 19.
Remarks: [1]Freq to be 120.0 Oct 27.

LOVELOCK (L) BVORTAC 116.5/LOL FSS: LOVELOCK

MERCURY RBn HW 326/MCY

MINA (L) BVOR 113.1/MVA FSS: TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM FSS: LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO FSS: LOVELOCK

§RENO MUNI ***IFR*** 2SE FSS: RENO on Fld
4411 H90/16-34(2) (S-100, T-160, TT-250)* BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: A-gear each threshold rnwy 16-34. *Rnwy 7-25 (S-100, T-200, TT-350).
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 351T
ILS 109.3 I-RNO Apch Brg 162° **LMM:** 254/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn MHW 351/RNO 161° 2.3 NM to fld.
Remarks: LMM is MHW.

SOD HOUSE (L) BVOR 114.3/SDO FSS: LOVELOCK

SPARKS RBn HW 254/SPK FSS: RENO

TONOPAH (L) BVORTAC 117.2/TPH FSS: TONOPAH

WELLS (L) BVOR 114.2/LWL FSS: ELKO

WILSON CREEK (H) BVOR 116.3/ILC FSS: CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML FSS: CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON FSS: CONCORD

NEW HAMPSHIRE—*Continued*

KEENE (L) BVOR 109.4/EEN FSS: CONCORD
RBn MHW[1] 224/EEN
Remarks: [1]Oper by State.

LACONIA RBn MHW 400/LCI FSS: CONCORD
Remarks: Oper by State. (LC 524-2236)

LEBANON (L) BVOR 113.7/LEB FSS: LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) ***IFR*** 4S FSS: CONCORD
(LC 669-1641)
233 H70/17-35(2) (S-127, T-200, TT-400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower 121.3 126.2 122.5R
ILS 108.3 I-MHT Apch Brg 352° BC unusable
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW[1] 338/MHT 352° 3.5NM to fld.
Remarks: [1]Oper by State.

NASHUA RBn MHW 260/AMH FSS: CONCORD
Remarks: Oper by State. (LC 889-0301)

NORTH CONWAY RBn MHW 334/CWN FSS: CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR FSS: CONCORD
Remarks: To be in common system.

WHITEFIELD RBn MHW 272/HIE FSS: LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) ***IFR*** 9NW
FSS: MILLVILLE (LC 399-8096)
76 H100/13-31(4) (S-63, T-88, TT-160) BL4,6,8A,9 S3 F5, JP4 DT2
Remarks: Fee. BAK/9 arresting gear installed 2000' from threshold rnwy 13 and 1000' from threshold rnwy 31. Pendant 1½" steel cable stretched across rnwy 31; ½-4" above surface with rubber doughnuts extending 6" above surface. Pendant may gyrate. Unlgtd frangible distance to go mrkrs every 1000' each side rnwy 13-31.
Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi
Min Alt 576
ILS 110.5 I-ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlanta City NAFEC (L) VORTAC 108.6/ACY at NAFEC
VHF/DF Ctc twr.
Remarks: [1]400 authoriezd for rnwys 13, 17, 22, 26, 31.

BARNEGAT (L) BVOR 116.7/BGT FSS: MILLVILLE

CHATHAM RBn MHW 254/CAT FSS: NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL FSS: TETERBORO

COYLE (H) BVORTAC 113.4/CYN FSS: MILLVILLE

LAKEHURST RBn HW 396/NEL

MILLVILLE (L) BVORTAC 115.2/MIV FSS: MILLVILLE
Rng SBRAZ[1] 363/MV
Remarks: [1]Reliable reception distance 50 NM.

NEW JERSEY—*Continued*

§MORRISTOWN MUNI *IFR* 2E **FSS:** TETERBORO (LC JE8-2196)
187 H40/4-22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 1600′ rnwy 22. Trng flts by nonbased acft prohibited. Gliders-kit, homemade and pvt fiighter type acft prohibited. Lndg fee. Turbojet operns prohibited rnwy 12; turbojet tkof prohibited rnwy 30. Vehicle tfc crossing at jct N/S txwys; manned intermittently.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6^{2} 124.3^{3} 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: ^{1}Oper 0800-2300 lcl time. ^{2}270-089° ^{3}090-269°

§NEWARK MUNI *IFR* 2 S **FSS:** TETERBORO (DL)
18 H70/4-22(2) (S-115, T-200, TT-400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE.
Tower 118.3 122.7R
‡Clrnc Del 121.4 **Gnd Con** 121.9
ATIS: 109.1 or 110.3 (Arr)
Radar Services: (BCN)
App Con 120.6^{2} 124.3^{3} 122.7R
Dep Con 119.2
Tfc Info Inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600^{1} Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I-EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW^{4}
109.1 I-ARK Apch Brg 217° **LOM:** 242/AR
RBn H-SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: ^{1}Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix ^{2}270-089° ^{3}090-269° ^{4}LOM unusable beyond 12 mi 050-090°. **VOT:** 108.6

PALISADES PARK MHW 233/PAD

PATERSON RBn MHW 347/PNJ **FSS:** TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV **FSS:** N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE **FSS:** MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ **FSS:** TETERBORO

SPARTA (L)BVORTAC 112.3/SAX **FSS:** TETERBORO

STILLWATER (L) BVORTAC 109.6/STW **FSS:** TETERBORO

§TETERBORO MUNI *IFR* 1 SW **FSS:** TETERBORO on Fld
7 H50/6-24(3) S-50, T-80, TT-) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission. Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14-32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I-TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY *IFR* 4 NW **FSS:** PHILADELPHIA (LC. 882-1590)
213 H52/6-24(3) S-31.5, T-51, TT-) BL4,11,12,^{1} S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. ^{1}1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9

NEW JERSEY—*Continued*

Radar Services:
Philadelphia App Con 127.2^{1} 123.8^{2} 122.7R 109.3T
Philadelphia Dep Con 119.0^{1} 128.55^{2}
ILS 111.3 I-TTN Apch Brg 056° **LOM:** 369/TT
Remarks: ^{1}270-089°. ^{2}090-269°.

WOODSTOWN (L)BVOR 112.8/OOD **FSS:** MILLVILLE

NEW MEXIÇO

ALAMOGORDA RBn HWZ 375/ALM

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE **FSS:** ALBUQUERQUE on Fld
5352 H127/8-26(4) (S-158, T-200, TT-400) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVR:** Rnwy 35
Remarks: Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC-3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
Gnd Con 121.9
Clrnc Del 119.2
ATIS: 110.3
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 121.1 122.5R 113.2T 110.3T
Albuquerque Dep Con 123.9
Tfc Info Ctc App Con 25 mi out on 121.1.
PAR^{2} Rnwy 8^{1} Ceil 300 Vsby ¾ mi Min Alt 5652
ASR Rnwys 3^{1}, 8^{1}, 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I-ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: ^{1}500-1½ rqrd for civil jet acft. ^{2}Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO (L)BVOR-DME 110.0/ACH **FSS:** LAS VEGAS

CANNON (L) VORW 115.7/CVS
RBn HW 272/CVS

CARLSBAD (L)BVOR 116.3/CNM **FSS:** CARLSBAD

CIMARRON (H) BVORTAC 116.4/CIM **FSS:** TRINIDAD

COLUMBUS (L) BVORTAC 111.2/CUS **FSS:** DEMING

CORONA (L) BVOR 115.5/CNX **FSS:** ALBUQUERQUE

DEMING (L) BVOR 108.6/DMN **FSS:** DEMING

§FARMINGTON MUNI *IFR* 2 NW **FSS:** FARMINGTON of Fld
5503 H67(2) (Max-60) BL4 S5 F4 TP1 U2
Tower^{1} 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF Ctc FSS.
Remarks: ^{1}Oper 1300-0500Z.

GALLUP (H)BVORTAC 115.1/GUP **FSS:** ZUNI

GRANTS (L)BVORTAC 116.5/GNT **FSS:** GRANTS

§HOBBS, LEA COUNTY *IFR* 4 W **FSS:** HOBBS on Fld
3659 H63/3-21 (4) (S-115 T-200 TT-400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN (L) VORW 115.8/HMN

LAS VEGAS (H) BVORTAC 117.3/LVS **FSS:** LAS VEGAS

OTTO (L) BVOR 114.0/OTO **FSS:** ALBUQUERQUE

PINON (L) BVOR 110.4/PIO **FSS:** EL PASO

§ROSWELL MUNI *IFR* 1 NW **FSS:** ROSWELL on Fld
3623 H58/17-35(4) (S-42, T-60, TT-110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.

NEW MEXICO—*Continued*

Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 120.2 122.7R
Walker Dep Con 123.8
Tfc Info Ctc Walker App Con 30 mi out at 10,000′ and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn SABH[2] 305●/ROW 312° 7.9 NM to fld.
VHF/DF[3] Ctc FSS
Remarks: [1]Oper 1300–0500Z. [2]Oper 1200–0500Z. [3]To be comsnd Oct 27

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§SANTE FE COUNTY MUNI ***IFR*** 9 SW **FSS:** SANTA FE on Fld
6344 H83/2–20 (3) (S–45, T–60, TT–) BL4 S5 F4, JP1 U2
Tower 119.5 126.2 122.5R **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO (H) BVORTAC 116.8/ONM **FSS:** ALBUQUERQUE

TAOS (L) BVOR 117.6/TAS **FSS:** SANTA FE

TRUTH OR CONSEQUENCES (H) BVORTAC 112.7/TCS
FSS: TRUTH OR CONSEQUENCES

TUCUMCARI (H) BVORTAC 113.6/TCC **FSS:** TUCUMCARI

WALKER RBn MHW 396/LK

ZUNI (L) BVORTAC 113.4/ZUN **FSS:** ZUNI

NEW YORK

§ALBANY COUNTY ***IFR*** 6 NW AOE **FSS:** ALBANY on Fld
288 H50/1–19 (3) (S–110, T–200, TT–400) BL4,6,8A,9,11 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S. Rnwy 15–33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I–ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: **VOT:** 109.0

ALPINE RBn MHW 245/ALP **FSS:** ELMIRA

AVON RBn MHW 344/AVN **FSS:** ROCHESTER

BABYLON RBn MHW 275/BBN **FSS:** NEW YORK

BECKSGROVE RBn MHW 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY ***IFR*** 7 N **FSS:** BINGHAMTON on Fld
1629 H56/16–34(2) (S–94.5, T–135, TT–) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34
Binghamton Tower 119.3 122.5R 114.3T 109.6T
Gnd Con 121.9
Radar Services: (BCN)
Binghamton App Con 118.6 **Binghamton Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I–BGM Apch Brg 338° BC unusable **LMM:** 203/GM
Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.
Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO
§GREATER BUFFALO INTL ***IFR*** 5 E AOE **FSS:** BUFFALO on Fld
722 H81/5–23(2) (S–120, T–180, TT–400) BL4, 6, 11 S5 F5, JP1, JP4, JP5 DT2
Remarks: Fee.
Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7
Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7 110.3T

NEW YORK—*Continued*

Buffalo Dep Con 125.5
Tfc Info Inbnd acft ctc Buffalo App Con on 126.5 or 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 111.3 I–BUF Apch Brg 232° **LOM:** 219/BU
108.5 I–GBI Apch Brg 052° BC unusable **LOM:** 204/GB
Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld
Buffalo RBn BH 260/BUF 211° 0.9 nm to fld
VHF/DF Ctc App Con.
Remarks: VOT: 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM **FSS:** GLENS FALLS

CANARSIE (T) VORW 111.0/CRI **FSS:** JFK TWR

CARMEL (L) BVORTAC 116.6/CMK **FSS:** TETERBORO

DEER PARK (L) VORTAC 111.2/DPK **FSS:** NEW YORK

DE LANCEY (L) BVOR 112.1/DNY **FSS:** BINGHAMTON

DUNKIRK (L) BVOR 114.2/DKK **FSS:** BUFFALO

ELMIRA
§CHEMUNG COUNTY ***IFR*** 5 NW **FSS:** ELMIRA on Fld
951 H56/6–24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2
Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.95 122.5R 120.0[1]
ILS 109.1 I–ELM Apch Brg 239° BC restricted
Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.
Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.
Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE **FSS:** BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT **FSS:** UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL **FSS:** GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO **FSS:** NEW YORK

HANCOCK (L) BVORTAC 109.0/HNK **FSS:** BINGHAMTON

HUGUENOT (H) BVORTAC 116.1/HUO **FSS:** WILKES-BARRE

ISLIP
§LONG ISLAND—MacARTHUR ***IFR*** 7 NE **FSS:** NEW YORK on Fld
98 H50/6–24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6
Remarks: Trees E.
Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7
Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
ILS 108.3 I–ISL Apch Brg 057° **LOM:** 366/IS
VHF/DF: ctc FSS.
Remarks: [1]054–110°. [2]110–160°.

ITHACA (L) BVOR 111.8/ITH **FSS:** ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW **FSS:** BRADFORD (DL)

KINGSTON (L) BVOR 117.6/IGN **FSS:** POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS **FSS:** MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF
RBn MHW 335/SWF

NEW YORK
§JOHN F KENNEDY INTL ***IFR*** 11 SE **FSS:** NEW YORK (DL)
12 H146/13R–31L(6) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 13L, 13R, 22R, 31L.
RVR: Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]
Remarks: Fee. U.S. Customs lndg rgts arpt. Clsd to fighter-type, jet and turboprop acft excp with prior approval and to routine

NEW YORK—*Continued*

mill tfc. Rnwy 13R-31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3320′. Rnwy 22R threshold displaced 3022′. Rnwy 13L threshold displaced 985′ rnwy 31R threshold displaced 1024′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Non standard. Lead in lgts rnwy 13L and 13R.

Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡Clrnc Del 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5
Radar Services: (BCN)
Kennedy App Con 127.4 134.1 135.35 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
Tfc Info: Expanded radar service avbl.
PAR Rnwy 4R Ceil 200 Vsby ½ Min Alt 212.
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 31L 22R 31R Ceil 500 Vsby 1 mi Min Alt 512.
ILS 109.5 I–JFK Apch Brg 042° **LOM:** 373/JF[3]
110.9 I–IWY Apch Brg 222° **LOM:** 226/IW
111.5 I–RTH Apch Brg 311° BC unusable. **LOM:** 268/RT
Kennedy (H) BVORTAC 115.9/JFK on fld.
Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.
VHF/DF Ctc twr.
Remarks: [1]054–110°, [2]110–160°. [3]LOM is MHW. **VOT:** 112.5.

§LA GUARDIA *IFR* 4E **FSS:** TETERBORO (DL)
21 H70/4–22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4
REIL: Rnwy 13–31, 22

Remarks: Fee. U.S. Customs lndg rgts arpt. Rnwy threshold displaced 173′ NW. 5813′ avbl nldg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. 1465′ (1520′ MSL) twr 5 NM WSW. Mag anomalies may affect compass heading when using extensions rnwys 13 and 22 for tkof.

FAA Dep Proc: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.

Tower 118.7 122.7R 109.9T 108.5T 110.5T
‡Clrnc Del 126.15 **Gnd Con** 121.7

ATIS: (Arr) 113.1

Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 108.5T 110.5T
Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [4]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
Rnwy 22 Ceil 200 Vsby ½ mi Min Alt 221
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.

ILS 109.9 I–LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I–GDI[1] Apch Brg 134°
110.5 I–URD[3] Apch Brg 223° BC unusable **LOM:** 385/UR

La Guardia (L) VOR–DME 113.1/LGA 177° 0.4 NM to fld
Palisade Park MHW 233/PAD
VHF/DF Ctc App Con.

Remarks: Flwg shut down indef due arpt constrn: Rnwy 22 apch lgts; Rnwy 4 ILS. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000–3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235–245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 109.0.

NEW YORK—*Continued*

§NIAGARA FALLS MUNI *IFR* 4 E **FSS:** BUFFALO (DL)
590 H91/10L–28R(4) (S–90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
Remarks: U.S. Customs lndg rgts arpt. No signal SS–SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.
Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5 110.3T
Buffalo Dep Con 125.5
ILS 110.1 I–IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF Ctc twr.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200–0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

§ROCHESTER-MONROE CO *IFR* 3 SW AOE
FSS: ROCHESTER on Fld
560 H70/4–22(5) (S–126, T–160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F4, JP1 U2 DT2 **RVR:** Rnwy 28.
Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS–SR to indicate IFR conditions.
Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I–ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I–MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON

ROME RBn HW 212/RME

SARANAC LAKE (L) BVOR 111.2/SLK **FSS:** MASSENA

§SCHENECTADY COUNTY *IFR* 2 N **FSS:** ALBANY (DL)
378 H70/4–22(3) (S–52) BL4, 6 S5
F5, JP5 DT2
Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr. Rnwy 28, 15 and 33 apch restricted by trees.
Tower[1] 121.3 126.2 122.5R 356T
Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF Ctc twr.
Remarks: Opers 1200–0400Z.

SYRACUSE
§HANCOCK *IFR* 4 NE **FSS:** SYRACUSE on Fld
421 H90/10–28(3) (S–120, T–190, TT–350) BL4, 6, 8A, 9, 14 S5 F5, JP4 DT2 **RVV:** Rnwy 28

NEW YORK—*Continued*

Remarks: U.S. Customs lndg rgts arpt. Rnwy 6–24 limited to acft under 12,500 lbs GWT.
Syracuse Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 124.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I–SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY ***IFR*** 7 NW FSS: UTICA on Fld
742 H60/15–33(2) (S–60, T–80, TT) BL4, 6, 8A, 9 S5
F2 U2 DT2 **RVV:** Rnwy 33.
Utica Tower 118.1 122.7R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.7R
Griffiss Dep Con 120.9
ILS 109.3 I–UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WESTHAMPTON BEACH
SUFFOLK COUNTY (T) VOR 110.4/FOK

WHITE PLAINS
§WESTCHESTER COUNTY ***IFR*** 3NE FSS: NEW YORK
439 H65/16–34(3) (S–63, T–110, TT–275) BL4, 8A, 9 S5
F5, JP5 U2 DT2
Remarks: Trees NW, SE. Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I–HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI ***IFR*** 9 S FSS: GREER (LC 684–4401)
2161 H65/16–34(1) (S–100, T–160, TT–275) BL6,8A,9,10 S5
F5, JP1, JP4 U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.
Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I–AVL Apch Brg 342° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA **FSS:** ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB **FSS:** WILMINGTON

CHARLOTTE
§DOUGLAS MUNI ***IFR*** 4 W FSS: HICKORY (LC 332–8161)
748 H78/18–36 (2) (S–60, T–150, TT–240) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932 MSL) twr 10 NM ENE. 1071′ (1871′ MSL) twr 10.5 NM ENE. Rnwy 18 threshold displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0

NORTH CAROLINA—*Continued*

ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148
ILS[2] 109.5 I–CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L) BVORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. **VOT:** 112.0

COFIELD (L) BVORTAC 114.4/CVI **FSS:** ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG **FSS:** ELIZABETH CITY

FAYETTEVILLE
§GRANNIS FIELD ***IFR*** 3 S FSS: FAYETTEVILLE on Fld
189 H50/3–21(2) (S–64, T–120, TT–200) BL4,6,8A,9 S5 F4, JP4
RVV: Rnwy 3
Remarks: Trees NNW, SSE.
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I–GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG

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§GREENSBORO-HIGH POINT/WINSTON-SALEM ***IFR*** 7 W
FSS: RALEIGH (LC BR 56341)
926 H64/14–32(2) (S–40, T–140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Remarks: Rnwy 5 threshold displaced 290′.
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Grensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1326
ILS[1] 109.9 I–GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY **FSS:** HICKORY

KINSTON (L) BVORTAC 109.6/ISO **FSS:** NEW BERN

LIBERTY (L) BVOR 111.2/LIB **FSS:** RALEIGH-DURHAM

NEW BERN (L) BVOR 108.4/EWN **FSS:** NEW BERN

PINEHURST (L) BVORTAC 111.8/SOP **FSS:** FAYETTEVILLE

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§RALEIGH-DURHAM ***IFR*** 9 NW FSS: RALEIGH on Fld
435 H75/5–23(3) (S–110, T–160, TT–270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: No signal btn SS–SR indicate gnd vsby of less than 2.6 NM and or ceil less than 1000′.
Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 120.6 122.5R
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I–RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H–SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 633′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT **FSS:** ROCKY MOUNT

SEYMOUR-JOHNSON AFB (L) VOR 116.5/GSB
RBn MHW 285/GSB
ILS[1] 109.3 I–GSB Apch Brg 078° BC unusable **LOM** 285/GSB
Remarks: LOM is MHW. [1]Glide slope unusable below 270′

NORTH CAROLINA—*Continued*

WEEKSVILLE RBn (HW) 254/EKV FSS: ELIZABETH CITY

WILMINGTON

§NEW HANOVER CO ***IFR*** 2 NE FSS: NEW BERN (LC 762-7567)
31 H80/5-23(3) (S-90, T-120 TT-212) BL4, 6, 8A, 9 S5 F5, JP5 **RVR:** Rnwy 34.
Remarks: Rnwy 27 threshold displaced 800′ W. Usable length rnwy 27 lndg 3327′; tkof 4127′. Rnwy 9-4127′ lndg; 3327′ tkof. Due non-vsby some areas of fld, ctc twr. Jet aresting rnwy 16-34.
Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9
Clrnc Del 121.9
Wilmington App Con 118.8 122.5R 110.3T
ILS[1] 110.3 I-ILM Apch Brg 343° **LOM:** 281/IL
Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.
Remarks: [1]Glide slope unusable below 223′.

WINSTON-SALEM

§SMITH REYNOLDS ***IFR*** 2NE FSS: HICKORY
969 H66/15-33(3) (S-40, T-85, TT-105)* BL4, 6, 8A, 9, 12 S5 F5, JP5 U2 **FVV:** Rnwy 33.
Remarks: Apch lgts oper 0700-2300 only. Rnwy lgts 15-33 only oper 2300-0700. *Rnwy 3-21 (S-56, T-85, TT-105)
Winston-Salem Tower[1] 118.7 126.2 122.7R 278T
Gnd Con 121.7
Radar Services: (BCN)
Greensboro App Con 118.5 122.5R 120.9 109.9T
Greensboro Dep Con 124.6
ILS[2] 110.3 I-INT Apch Brg 328° BC unusable **LOM:** 317/IN
Remarks: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300-0700 EST daily.

NORTH DAKOTA

§BISMARCK MUNI ***IFR*** 2 SE FSS: BISMARCK on Fld
1677 H69/12-30(3) (S-78, T-114, TT-190) BL4, 6, 8 S5 F4 JP4 U2 **RVV:** Rnwy 30
Remarks: Rnwys 17-35, 2-20 and E-W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to lndg acft. Rnwy 2 threshold displaced 530′ SW end. Rnwy 12 threshold displaced 817′ NW end.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
ILS 110.3 I-BIS Apch Brg 306° **LOM:** 215/BI
(L) BVORTAC 116.5/BIS 272° 3.6 NM to fld
RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB

DEVILS LAKE (L) BVOR 111.0/DVL FSS: GRAND FORKS

DICKINSON (H) BVORTAC 112.9/DIK FSS: DICKINSON
RBn BH[1] 308/DIK
Remarks: [1]VFR use only.

FARGO

§HECTOR FIELD ***IFR*** 2NW FSS: JAMESTOWN
900 H91/17-35(3) (S-90, T-120, TT) BL4,6, 8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35 **RVR:** Rnwy 35
Remarks: Arresting barriers rnwy 35.
Fargo Tower 118.3 122.5R **Gnd Con** 121.9
Fargo App Con 125.8 110.3T
VFR ADV Ctc App Con 25 mi out on 125.8
ILS 110.3 I-FAR Apch Brg 351° **LOM:** 219/FA
Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld
Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVORTAC 109.4 GFK FSS: GRAND FORKS

NORTH DAKOTA—*Continued*

JAMESTOWN (L) BVOR 114.5/JMS FSS: JAMESTOWN

MINOT (L) BVOR 117.1/MOT FSS: MINOT
Rng BMRLZ[1] 209/MT
Remarks: [1]Reliable reception distance 70 NM.

PEMBINA (H) BVORTAC 112.4/PMB FSS: GRAND FORKS

RED RIVER (H) VOR 116.7/RDR
RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN FSS: MINOT

OHIO

§AKRON MUNI ***IFR*** Adj SE AOE FSS: AKRON on Fld
1059 H53/7-25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2
REIL: Rnwys 7 and 25.
Remarks: Poles E. Obstn lgts inop SE hill apch rnwy 32. Rnwy 25 threshold displaced 511′ SW.
Tower 120.1 122.7R 110.9T **Gnd Con** 121.9
Radar Services:
Akron-Canton App Con 125.5 126.2 122.5R 109.5T
Akron-Canton Dep Con 118.6
ILS 110.9 I-AKR Apch Brg 246° **LOM:** 362/AKR
(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld
RBn MHW 362/AKR 246° 3.7 NM to fld.
Remarks: LOM is MHW.

§AKRON-CANTON ***IFR*** 10SE FSS: AKRON
1228 H56/1-19(4) (S-120, T-160, TT-250) BL4,6,11 S5 F5, JP1 DT2 **RVV:** Rnwy 1 **REIL:** Rnwy 23
Remarks: U.S. Customs lndg rgts arpt. Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.
Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.5 126.2 122.5R 109.5T
Dep Con 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400 Vsby 1 mi Min Alt 1628
ILS 109.5 I-CAK Apch Brg 006° **LOM:** 233/CA
Remarks: VOT: 115.4.

APPLETON (H) BVORTAC 116.7/APE FSS: COLUMBUS

ATHENS RBn MHW 206/UOA FSS: PARKERSBURG

ATTICA (L) BVORTAC 116.9/ATO FSS: MANSFIELD

BELLAIRE (L) BVORTAC 111.0/AIR FSS: WHEELING

BRECKSVILLE RBn MHW 326/BKI FSS: CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV FSS: AKRON

CHARDON (L) BVORTAC 109.8/CXR FSS: CLEVELAND

COVINGTON, KY. (CINCINNATI, OHIO)

§GREATER CINCINNATI ***IFR*** 9SW Cincinnati FSS: CINCINNATI
890 H86/18-36(2) (S-179, T-283, TT-500) BL4,6,8A,9,11 S5 F5 **REIL:** Rnwy 27 **RVR** Rnwy 18-36
Remarks: Fee.
Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7
Clrnc Del 121.3
ATIS 112.9
Radar Services:
Cincinnati App Con 124.7 119.7 126.2 122.7R
Cincinnati Dep Con 121.0
ASR Rnwys 4, 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290. Rnwys 22, 27 Ceil 700 Vsby 1 mi Min Alt 1590
ILS 109.9 I-CVG Apch Brg 360° **LOM:** 287/CV
111.5 I-SIC Apch Brg 180° **LOM:** 351/SI

OHIO—*Continued*

Cincinnati (L) VORTAC 112.9/CVG 043° 2.3 NM to fld
VHF/DF Ctc twr or radar.
Remarks: **VOT:** 108.4.

§CINCINNATI MUNI-LUNKEN FLD ***IFR*** 3SE **FSS:** CINCINNATI on Fld
488 H61/2R–20L(4) (S–55, T–75 TT–167) BL4,6,8A,9 S5 F4, JP4 U2
Remarks: U.S. Customs lndg rgts arpt. Rnwy 2L threshold displaced 189′ NE. 4795′ avbl lndg rnwy 2L; tkoff rnwy 20R. 4984′ avbl lndg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 701′ SE. 3331′ avbl lndg rnwy 15; tkoff rnwy 33. 4032′ avbl tkoff rwy 15, lndg rnwy 33.
Lunken Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Cincinnati App Con 119.7 126.2 124.7 122.7R
Cincinnati Dep Con 121.0
ILS[1] 110.9 I–LUK Apch Brg 201°
Cincinnati Rng SABRAZ[2] 335/LUK 227° 4.3 NM to fld
Remarks: [1]Glide slope unusable beyond 11 NM below 2700′ MSL. BC unusable beyond 10 NM. [2]Reliable reception distance 60 NM.

CLEVELAND
§BURKE LAKEFRONT Adj N **FSS:** CLEVELAND (DL)
584 H52/6–24(1) (S–31, T–37, TT–55) BL 6 S5 F4, JP1 U2 DT2
Remarks: U.S. Customs lndg rgts arpt. Fee. Rgt tfc rnwy 24.
Lakefront Tower[3] 120.9 126.2 122.5R **Gnd Con** 121.9
Radar Services
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Remarks: [1]270°–089° [2]090°–269° [3]Oper 1100–0300Z.

§CLEVELAND-HOPKINS INTL ***IFR*** 9SW AOE **FSS:** CLEVELAND on Fld
792 H90/5R–23L(5) (S–54, T–78, T–126)* BL4,6,8A,9,10,11 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27
REIL: Rnwy 36L.
Remarks: *(S-125, T–188, TT–338) avbl rnwy 9–27. Rnwy 23L apch restricted by fence. Rnwy 18L threshold displaced 493′S. 4522′ avbl lndg rnwy 18L; tkof rnwy 36R. 5015′ avbl lndg 36R, tkof rnwy 18L.
Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7
‡Clrnc Del 127.4
ATIS 112.0[5]
Radar Services: (BCN)
Cleveland App Con 124.0[1] 122.7R 118.5[2] 124.5[6] 110.7T 109.9T **Cleveland Dep Con** 121.0 124.5[6]
ASR Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292.
Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.
ILS 109.9 I–CLE Apch Brg 055°
110.7 I–CEE[3] Apch Brg 278°
Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld
Cleveland RBn H–SAB 344●/CLE 070° 0.8 NM to fld
VHF/DF Ctc twr
Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]1000–0200Z. [6]For Cuyahoga County Arpt. **VOT:** 110.4.

CLINTON (T) VOR 113.2/ILN
RBn MHW 219/ILN

COLUMBUS, OHIO STATE UNIVERSITY RBn MHW 348/OSU

§COLUMBUS, PORT COLUMBUS INTL ***IFR*** 6E AOE **FSS:** COLUMBUS on Fld
816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28R **REIL:** Rnwys 10R, 28R.
Remarks: *Rnwy 10L–28R (S–180, T–200, TT–400). Due non-vsby some areas of fld, ctc twr.

OHIO—*Continued*

Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.9
Clrnc Del 121.3
Radar Services: (BCN)
App Con 119.0 126.2 125.4 122.5R 109.5T
Dep Con 120.5 126.2
ASR Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.
Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.
ILS[1] 109.1 1–CBP Apch Brg 096° **LOM:** 271/CB
109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM
RBn BH 391/CMH 070° 1.0 NM to fld
Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM.
VHF/DF Ctc twr.
Remarks: **VOT:** 111.0

CUYAHOGA RBn MHW 275/CUC **FSS:** CLEVELAND

DAYTON
§JAMES M COX-DAYTON MUNI ***IFR*** 9N **FSS:** DAYTON on Fld
1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt. P-line SE. 1096′ twr 10NM S.
Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 125.2
Radar Services: (BCN)
Dayton App Con 118.0 126.5 122.7R 111.6T 110.3T
Dayton Dep Con 125.9 119.9
ILS[1] 110.3 1–DAY Apch Brg 056° **LOM:** 356/DA
Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.
Remarks: **VOT:** 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI **FSS:** FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY **FSS:**FINDLAY
RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO **FSS:** FINDLAY
Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL **FSS:** CLEVELAND

HAMILTON RBn MHW 260/HAO **FSS:** CINCINNATI

HUBBARD RBn MHW 408/HBD **FSS:** YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN **FSS:** YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA **FSS:** FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK

MADEIRA RBn MHW 379/MDE

§MANSFIELD MUNI ***IFR*** 3N **FSS:** MANSFIELD on Fld
1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32
Tower 119.3 122.5R 110.5T **Gnd Con** 121.9
App Con 124.7 122.5R 110.5T 108.8T
ILS 110.5 1–MFD Apch Brg 320° **LOM:** 374/MF
(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.
RBn MHW 374/MF 320° 4.0 NM to fld.
Remarks: LOM is MHW.

MARION RBn MHW 203/MNN **FSS:** MANSFIELD

MIDDLETOWN RBn MHW 239/MWO **FSS:** DAYTON

MONTGOMERY CO. (T) VORW 110.0/MGY **FSS:** DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW **FSS:** ZANESVILLE

PATTERSON (T) VOR 111.6/FFO
RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD **FSS:** DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY **FSS:** CLEVELAND

OHIO—*Continued*

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§SPRINGFIELD MUNI *IFR* 5S **FSS:** DAYTON (LC FA 2–4562)
1049 H90/5–23(3) (S–190, T–200, TT–380) BL4 S5 F4, JP4
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245–2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM **FSS:** CLEVELAND

STRONGSVILLE (L) VOR 112.0/STG **FSS:** CLEVELAND

TIPP CITY RBn MHW 212/TPC **FSS:** DAYTON

TIVERTON (L) BVOR 116.5/TVT **FSS:** MANSFIELD

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§TOLEDO EXPRESS *IFR* 9SW **FSS:** FINDLAY (LC 242–4171)
684 H87/7–25(2) (S–107, T–163, TT–287) BL5,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 7
Remarks: U.S. Customs lndg rgts arpt.
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084. Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I–TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV **FSS:** TOLEDO

WILLOUGHBY
§LOST NATION *IFR* 2 N **FSS:** CLEVELAND (DL)
626 H50/9–27(2) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W. Rnwy 5 threshold displaced 200′ NE. 4800′ avbl lndg rnwy 5, twof rnwy 23.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°–089° [2]090°–269° [3]Oper 0230–1430Z.

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§YOUNGSTOWN MUNI *IFR* 10 N **FSS:** YOUNGSTOWN on Fld
1196 H75/14–32(3) (S–116, T–160, TT–270) BL4, 6, 8A, 9 S5 F4 TP1 U2 **RVV:** Rnwy 32
Remarks: Rnwy 9–27 rnwy lgts inop.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I–YNG Apch Brg 320° **LOM:** 338/YN
(L) BVORTAC 109.0/YNG 183° 4.1 NM to fld.
VHF/DF Ctc twr.

ZANESVILLE (L) BVORTAC 111.4/ZZV **FSS:** ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS
RBn HW 410/LTS

ARDMORE (L) BVORTAC 116.7/ADM **FSS:** ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO **FSS:** TULSA

BURNS FLAT (L) VOR 110.0/BFV

CLINTON RBn MHW 320/CSM

DUNCAN (L) BVOR 111.0/DUC **FSS:** ARDMORE

OKLAHOMA—*Continued*

GAGE (H) BVORTAC 115.6/GAG **FSS:** GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR **FSS:** HOBART

KINGFISHER (L) BVORTAC 114.2/IFI **FSS:** OKLAHOMA CITY

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§LAWTON MUNI *IFR* 2 S **FSS:** WICHITA FALLS (LC EL5–1323)
1109 H54/17–35(1) (S–50, T–75, TT–135) BL4 S5 F5 JPI U–2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.7R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230–0430Z.

McALESTER (L) BVORTAC 112.0/MLC **FSS:** McALESTER

MUSKOGEE RBn MHW 306/MKO

OKLAHOMA CITY
§WILEY POST *IFR* 7 NW **FSS:** OKLAHOMA CITY on fld
1303 H54/17–35(2) (S–15, T–20, TT–30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200–0400Z.

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§WILL ROGERS WORLD *IFR* 6W **FSS:** OKLAHOMA CITY (LC SU9–7452)
1284 H98/17R–35L(4) (S–100, T–180, TT–350) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3–21 and txwy (C–1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr.
Tower 118.3 126.2R 122.7R 109.9T **Gnd Con** 121.9
ATIS: 109.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I–OKC Apch Brg 351° **LOM:** 219/OK
Oklahoma City (H) BVORTAC 115.0/OKC 098° 8.1 NM to rnwy 12.
Oklahoma City RBn H–SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM **FSS:** TULSA

OWASSO RBn MHW 317/DW **FSS:** TULSA

PAGE (L) BVOR 113.5/PGO **CS/T:** FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC **FSS:** PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO **FSS:** HOBART

STILLWATER (T) BVOR 108.4/SWO **FSS:** OKLAHOMA CITY (LC FR 2–4935)

TINKER AFB RBn HW 394/TIK

TULAKES RBn MHW 406/TWO **FSS:** OKLAHOMA CITY

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§TULSA INTL *IFR* 5NE **FSS:** TULSA on Fld
674 H100/17L–35R(5) (S–50, T–75, TT–135)* BL4, 6, 8A, 9, 10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R

OKLAHOMA—*Continued*

Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy. *Rnwy 17R-35L: (S-100, T-200, TT-400).

Tower 118.7 122.5R **Gnd Con** 121.9

‡Clrnc Del 121.2

ATIS[3] 114.4

Radar Services: (BCN)

App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7

Tfc Info Ctc App Con 25 mi out on 119.1

ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074

ILS 109.7 I-DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I-TUL[2] Apch Brg 355° **LOM:** 338/TU

(H) VORTAC 114.4/TUL 260° 4.3 NM to rnwy 26

RBn SBH 245/TUL 220° 0.9 NM to fld.

Remarks: [1]500-1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL; unusable for automatic apchs. Both systems not operd simultaneously. [3]Oper 1300-0300Z. **VOT:** 109.0

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§TULSA RIVERSIDE *IFR* 5S **FSS:** TULSA

624 H40/18-36(1) (S-50, T-60, TT-) BL4 S5 F4 U2

Remarks: Due non-vsby some areas of fld, ctc twr.

Tower:[1] 118.1 122.7R

Remarks: [1]Oper 1200-0400Z.

WOODRING (T) BVOR 109.0/ODG **FSS:** PONCA CITY

OREGON

ASTORIA (L) BVOR 114.0/AST **FSS:** HOQUIAM

BAKER (L) BVORTAC 115.3/BKE **FSS:** BAKER

CORVALLIS (L) BVOR 108.4/CVO **FSS:** EUGENE

EUGENE

§MAHLON-SWEET FLD *IFR* 7 NW **FSS:** EUGENE on Fld

365 H55/16-34(2) (S-80, T-120, T-190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16

Eugene Tower 118.9 122.5R **Gnd Con** 121.9

Eugene App Con 119.6 122.5R 112.9T 1095T

ILS 109.5 I-EUG Apch Brg 159° **LOM:** 227/EU

Eugene (L) BVORTAC 112.9/EUG on fld

HILLSBORO

PORTLAND-HILLSBORO *IFR* 2NE **FSS:** PORTLAND (DL)

204 H40/2-20(2) BL4 S5 DT2

Tower[1] 119.3 122.6R **Gnd Con** 121.7 122.6R

VFR ADV: Ctc Portland App Con

Remarks: [1]Oper 0600-2200 lcl time.

JOHN DAY (H) BVOR 115.6/JDA **FSS:** BAKER

Remarks: To be BVORTAC Oct 27

KLAMATH FALLS

§KINGSLEY FLD *IFR* 4 SE **FSS:** KLAMATH FALLS on Fld

4092 H103/14-32(3) (S-100, T-200, TT-380) BL4, 6,8A′, 9′ S5 F4, JP1 U2 DT2

Remarks: [1]Below FAA standards. 1000′ overrun N end, 750′ overrun S end rnwy 14-32.

Kingsley Tower 118.5 122.5R 269T **Gnd Con** 121.9

Radar Services: (BCN)

Klamath Falls App Con 119.4 122.5R

Klamath Falls Dep Con 124.1

Tfc Info Ctc App Con

ILS[1] 109.5 I-LMT Apch Brg 319° BC unusable **LMM:**269/MT

Klamath Falls (L) BVORTAC 115.9/LMT on fld

Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.

OREGON—*Continued*

Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV **FSS:** KLAMATH FALLS

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§MEDFORD, JACKSON COUNTY *IFR* 2 N **FSS:** MEDFORD on Fld

1330 H54/14-32(2) (S-80, T-120, TT-180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVV:** Rnwy 14

Remarks: Ngt fueling delay and surcharge 1800-0730 lcl time. Rnwy 21 apch obstructed by logging trucks.

Tower 118.3 122.5R **Gnd Con** 121.9

App Con 119.8 110.3T 113.6T

ILS[1] 110.3 I-MFR Apch Brg 141° **LOM:** 394/MF

(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.

RBn SBH 263/MFR 161° 2.1NM to fld.

VHF/DF Ctc twr or FSS.

Remarks: [1]ILS not certified for automatic apchs. [2]VHF/DF coverage 40 NM at MEA excp 360-015°, 9000′; 015-030°, 10,000′; 030-057°, 11,000′; 120-210°, 13,500′; 315-350°, 8000′; 350-360°, 8500′; 057-075°, 30 NM at 11,000′; 075-120°, 30 NM at 13,500′; 210-225°, 30 NM at 12,000′; 225-250°, 30 NM at 10,500′.

NEWBERG (H) BVORTAC 117.4/UBG **FSS:** PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP **FSS:** EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH **FSS:** NORTH BEND

RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO **FSS:** BOISE

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§PENDLETON MUNI *IFR* 2 NW **FSS:** PENDLETON on Fld

1493 H63/7L-25R(4) (S-70, T-100, TT-170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25

Remarks: Rnwy 25L threshold displaced 821′W. 2029′ avbl lndg rnwy 25L, 7R-25L dalgt operns only lgt planes.

Tower 118.7 122.5R **Gnd Con** 121.9

App Con 118.7 114.7T 341T

ILS 110.3 I-PDT Apch Brg 250° **LOM:** 236/PD

(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.

RBn SABH 341●/PDT 259° 1.7 NM to fld

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§PORTLAND INTL *IFR* 4 NE **FSS:** PORTLAND on Fld

26 H88/10R-28L(3) (S-100, T-200, TT-400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R

Remarks: U.S. Customs lndg rgts arpt.

Tower 118.7 122.7R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 118.1[2] 122.7R 119.8[3] 109.9T

Dep Con 124.9

Tfc Info Ctc App Con

PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226

ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726
Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826

ILS 109.9 I-PDX Apch Brg 098° BC restricted **LMM:** 201/DX
111.3 I-IAP Apch Brg 278° **LOM:** 383/IA

(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.

RBn SABH 332●/PDX 155° 2.9 NM to fld.

VHF/DF Ctc twr.

Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070-289°. [3]290-069°. **VOT:** 111.0.

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§PORTLAND-TROUTDALE *IFR* Adj NW **FSS:** PORTLAND (DL)

36 H46/7-25(1) (Max 20) BL 4 S5 F4 U2 DT2

RVV: Rnwy 7

Remarks: Rnwy 7 threshold displaced 400′ E. 4241′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 500′W. 4141′ avbl lndg rnwy 25.

Troutdale Tower[1] 120.5 122.5R **Gnd Con** 121.7

OREGON—*Continued*

Radar Services:
Portland App Con 118.1[1] 119.8[2]
Portland Dep Con 124.9
Remarks: [1]070–289° [2]290–069°. [3]Oper 1500–0700Z.

REDMOND (L) BVORTAC 117.6/RDM **FSS:** REDMOND
RBn H–SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO **FSS:** BAKER

ROSEBURG (L) BVOR 108.2/RBG **FSS:** EUGENE

§SALEM-MCNARY FLD *IFR* 1 SE **FSS:** PORTLAND (DL)
207 H58/13–31(2) (S–50, T–75, TT–110) BL4, 6 S5 F4
U1 DT2 **RVV:** Rnwy 31
Remarks: Rnwy 16–34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins. Med Intensity apch lgts sys with sequence flashers rnwy 31.
ILS[1] 110.3 I–SLE Apch Brg 309° **LOM:** 266/SL
Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY **FSS:** PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS **FSS:** THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON *IFR* 3 NE
FSS: ALLENTOWN on Fld
388 H62/6–24(4) (S–55, T–76, TT–125) BL4,6,8A,9 S5
F4 JP1 U2 DT2 **RVR:** Rnwy 6
Remarks: 5210′ avbl lndg rnwy 24. Rnwy 14–32 open for ngt opern 2415′ btn threshold lgts plus 175′ of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9
Clrnc Del 121.9
Allentown App Con 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I–ABE Apch Brg 061° **LOM:** 400/AB
Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld
Allentown Rng SBMAZ[1] 321/AE 195° 2.5 NM to fld.
Remarks: [1]Reliable reception distance 40 NM.

ALTOONA (T) BVOR 108.8/AOO **FSS:** ALTOONA

AMBLER RBn MHW 275/ING **FSS:** PHILADELPHIA
Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD **FSS:** BRADFORD
RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP **FSS:** PITTSBURGH

CARROLLTOWN (L) BVORTAC 110.6/CLN **FSS:** ALTOONA

CLARION (L) BVOR 112.9/CIP **FSS:** DU BOIS

COATESVILLE RBn MHW 262/CVE **FSS:** PHILADELPHIA

CREEK RBn MHW 219/CRK **FSS:** PITTSBURGH

CRYSTAL LAKE RBn MHW 392/CYE **FSS:** WILKES–BARRE

DU BOIS RBn BH 356/DUJ **FSS:** DU BOIS

EAST TEXAS (L) BVORTAC 110.2/ETX **FSS:** ALLENTOWN

ELLWOOD CITY (H) BVORTAC 115.8/EWC **FSS:** PITTSBURGH

ERIE
§PORT ERIE *IFR* 5 SW .. **FSS:** ERIE on Fld
732 H50/6–24(3) (S–75, T–115, TT–) BL4, 6, 8A, 9, 11 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt.
Erie Tower: 118.1 122.5R **Erie Gnd Con** 121.9
Erie App Con 119.0 118.4[1] 122.5R
ILS 110.3 I–ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

PENNSYLVANIA—*Continued*

FRANKLIN (L) BVOR 109.6/FKL **FSS:** YOUNGSTOWN
RBn MHW 233/FKL

§HARRISBURG-YORK STATE *IFR* 3 S **FSS:** HARRISBURG on Fld
347 H50/8–26(3) (S–65, T–105, TT–185) BL4, 6, 8A, 9 S5
F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26. Fence SE. Chimney SSW.
Harrisburg Tower 119.5 126.2 122.5R 109.1T
Gnd Con 121.9
Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447.
Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS[2] 109.1 I–HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMRAZ[1] 338/HR 118° 0.9 NM to fld.
Remarks: [1]Reliable reception distance 40 NM. [2]Lclzr crs vagaries and/or flag indications may be encountered below 6000′ MSL beyond 10 NM when more than 15° S lclzr crs.

HAZELTON (T) BVOR 109.4/HZL **FSS:** WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200–2400Z by City.

IMPERIAL (L) BVORTAC 109.4/IRL **FSS:** PITTSBURGH

INDIANA RBn MHW 242/INP **FSS:** ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/IHD **FSS:** MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST **FSS:** ALTOONA

KEATING (L) BVOR 114.7/ETG **FSS:** PHILIPSBURG

§LANCASTER *IFR* 5N **FSS:** HARRISBURG (LC 392–0881)
403 H50/8–26(2) (S–77, T–107, TT–) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
Rbn MHW 326/LRP
Remarks: [1]Oper 1200–0400Z.

LATROBE (T) VORW 108.2/LBE **FSS:** PITTSBURGH

MCKEESPORT RBn MHW 287/MKP **FSS:** PITTSBURGH

MILTON (L) BVORTAC 109.2/MIP **FSS:** WILLIAMSPORT

PHILADELPHIA
§ NORTH PHILADEPHIA *IFR* 10 NE **FSS:** PHILADELPHIA on Fld
120 H50/6–24(2) (S–120, T–200, TT–) BL4, 6, 12 S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]270–089° [2]090–269°

§PHILADELPHIA INTL *IFR* 5 SW **FSS:** PHILADELPHIA (DL)
14 H95/9–27 (3) (S–120, T–200, TT–400) BL4, 6, 8A, 9 S5
F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: U.S. Customs lndg rgts arpt. Fence E, NE. Constr vcnty rnwy 27.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
PAR[3] Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 214

PENNSYLVANIA—*Continued*

ILS 109.3 I-PHL Apch Brg 085°. **LOM:** 237/PH
VHF/DF Ctc twr.
Remarks: [1]270-089°. [2]090-269°. [3]Radar monitoring of instrument apchs only at pilots req. **VOT:** 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB **FSS:** PHILIPSBURG
RBn MHW 236/PSB

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PITTSBURGH

§ALLEGHENY COUNTY ***IFR*** 4 S **FSS:** PITTSBURGH on Fld
1252 H55/9-27(3) (S-70, T-120, TT-210) BL6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30
Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7
Radar Services: (BCN)
Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]
Pittsburgh Dep Con 125.9
ILS 109.1 I-AGC Apch Brg 275° BC unusable
(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld
RBn H-SAB 254●/AGC 082° 2.0 NM to fld
Remarks: [1]270-089° [2]090-269°

§GREATER PITTSBURGH ***IFR*** 12 NW **FSS:** PITTSBURGH (DL)
1203 H105/10L-28R(4) (S-120, T-200, TT-400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32
Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. U.S. Customs lndg rgts arpt.
Pittsburgh Tower 119.1 126.2 122.7R 110.3T
‡Clrnc Del 121.3 **Gnd Con** 121.9
Radar Services: (BCN)
Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]
Pittsburgh Dep Con 125.9
Tfc Info Ctc Radar App Con on 124.15 when approaching from NW & NE, and on 118.7 from SE & SW.
PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1368
ASR Rnwys 5,14,23.28R,32 Ceil 500 Vsby 1 mi Min Alt 1703
Rnwy 10L, 10R, 28L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° BC unusable **LOM:** 323/GP
111.7 I-LXB Apch Brg 097° BC unusable.
VHF/DF Ctc twr.
Remarks: [1]270-089° [2]090-269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POTTSTOWN (L) BVORTAC 116.5/PTW **FSS:** PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING

§GENERAL SPAATZ FIELD ***IFR*** 2NW **FSS:** HARRISBURG (LC 376-3045)
343 H51/18-36(3) (S-30, T-45, TT-175) BL4, 6, 7, 12 S5
F4, JP4 U2 DT2
Remarks: Rgt tfc rnwys 5, 13, and 36.
Reading Tower 119.9 126.2 122.5R 109.5T
Gnd Con 121.9
Reading App Con 119.9 126.2 122.5R 109.5T
ILS 109.5 I-RDG Apch Brg 001° BC unusable **LOM:** 269/RD
VHF/DF Ctc twr.

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

PENNSYLVANIA—*Continued*

TOBYHANNA RBn MHW 410/TSD

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** PHILADELPHIA

§WILKES-BARRE-SCRANTON ***IFR*** 9 NE **FSS:** WILKES-BARRE on Fld
956 H52/4-22 (3) (S-100, T-140, TT-) BL4-6,8A,9 F5, JP4
DT2 **RVV:** Rnwy 4
Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.
FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.
Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Wilkes-Barre App Con 124.5 122.5R 109.9T
Wilkes-Barre Dep Con 126.3
ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956
Rnwy 10,22 Ceil 900 Vsby 1 mi Min Alt 1856
ILS[1] 109.9 I-AVP Apch Brg 043° BC unusable **LOM:** 257/AV
Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

§WILLIAMSPORT-LYCOMING CO ***IFR*** 4 E **FSS:** WILLIAMSPORT on Fld
528 H50/9-27 (3) (S-40, T-60, TT-) BL4,6,8A,9 S5 F4,
JP1 DT2
Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 12,500 lbs and under. Rnwy 12-30 (Max-200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW.
Williamsport Tower 119.1 122.5R
Williampsort Gnd Con 121.9
Williampsort App Con 124.9 122.5R
ILS 110.1 I-IPT Apch Brg 266° BC unusable **LMM:** 281/PT
Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO

PROVIDENCE

§GREEN ***IFR*** 6 S **FSS:** PROVIDENCE on Fld
56 H54/5R-23L(4) (S-94.5, T-143, TT) BL5,6,8A,9 S5 F5, JP1
U2 DT2 **RVV:** Rnwy 5R
Remarks: U.S. Customs lndg rgts arpt. Fee. No mult engine lndgs 5L, no tkofs 23R.
Providence Tower 120.7 122.5R 109.3T 368T
Gnd Con 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.3 I-PVD Apch Brg 046° BC unusable **LOM:** 368/PV
Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

ANDERSON (L) BVORTAC 108.6/AND **FSS:** ANDERSON

§CHARLESTON AFB/MUNI ***IFR*** 9 NW **FSS:** CHARLESTON on Fld
45 H90/15-33 (2) (S-100, T-140, TT-250) BL4,6,8A,9,10 S5 F5,
JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15
Remarks: U.S. Customs lndg rgts arpt.
Tower 121.0 122.5R 126.2 113.5T 109.7T **Gnd Con** 121.9
Clrnc Del 121.7

SOUTH CAROLINA—*Continued*

Radar Services:
App Con 119.3 118.5 113.5T 109.7T
Dep Con 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.
PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445
Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245
Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445
ILS[1] 109.7 I–CHS Apch Brg 149° BC unusable **LOM:** 329/CH
(H) BVORTAC 113.5/CHS on fld.
RBn H–SAB 329●/CH
VHF/DF Ctc FSS
Remarks: LOM is H-SAB. **VOT:** 111.0.

CHESTERFIELD (L) BVOR 108.2/CTF **FSS:** FLORENCE

COLUMBIA
§COLUMBIA METROPOLITAN *IFR* 5SW
FSS: FLORENCE (LC 256–1506)
236 H75/10–28(2) (S–45, T–130, TT–270)* BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10
Remarks: *Rnwy 5–23 (S–45, T–170, TT–320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.
Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
App Con 118.2 122.5R 114.7T 110.3T 227T
ILS 110.3 I–CAE Apch Brg 107° BC unusable **LOM:** 356[1]/CA
(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.
Remarks: [1]Freq to be 362 Oct 19.

§OWENS FIELD 1SE **FSS:** FLORENCE (LC 256–1506)
203 H36/15–33(2) (S–30) L4 S5 F4 U1
Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.
Tower[1] 126.2 122.5R
Columbia App Con 118.2 122.5R 110.3T 227T
Remarks: [1]AAS—Oper weekdays 1230–1630Z and 1745–2115Z. Sats 1230–1600Z.

CONWAY RBn HW 269/MTL

FLORENCE (H) BVORTAC 115.2/FLO **FSS:** FLORENCE

FORT MILL (L) BVORTAC 112.4/FML **FSS:** HICKORY

GREENVILLE
§GREENVILLE MUNI DOWNTOWN *IFR* 2 E **FSS:** GREER
1047 H54/18–36 (3) (S–21, T–30, TT–60) BL4,6 S5 F4, JP1 U2
Remarks: Rgt tfc rnwys 18, 27, 23.
Tower[2] 119.9 126.2 122.5R 109.7T 391T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.0 124.3 122.5R 119.4 109.7T
Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.
ILS[1] 109.7 I–GRL Apch Brg 002° BC unusable **LOM:** 272/GR
Remarks: [1]Glide slope unusable below 1347′ MSL [2]Oper 1200–0400Z.

GREENWOOD (L) BVORTAC 114.9/GRD **FSS:** ANDERSON

GREER
§GREENVILLE-SPARTANSBURG *IFR* 3 S **FSS:** GREER on Fld
972 H76/3–21 (2) (S–120) BL6,8A,9, 14,15 S5 F5, JP5 U2
RVV: Rnwy 3
Remarks: Fee commercial only.
Greer Tower 120.1 126.2 122.7R 115.7T 109.3T 209T
Gnd Con 121.8
Radar Services: (BCN)
Greenville App Con 118.0 126.2 124.3 122.5R 119.4 109.7T
Greenville Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.

SOUTH CAROLINA—*Continued*

ILS 109.3 I–GSP Apch Brg 033° **LOM:** 287/GS
VHF/DF Ctc FSS.
Remarks: [1]Oper 1200–0400Z.

MYRTLE BEACH (L) BVORTAC 117.6/CRE **FSS:** FLORENCE

SHAW AFB (L) VOR 109.2/SSC
RBn HW 375/SW

§SPARTANSBURG DOWNTOWN MEMORIAL *IFR* 2SW
FSS: GREER (LC 585–5470)
816 H52/4–22(3) (S–56) BL4, 6 S5 F5, JP1, JP5
Tower[1] 118.3 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Greenville App Con 124.3
Greenville Dep Con 118.8
(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H–SAB 248●/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100–0300Z.

VANCE (L) BVOR 110.4/VAN **FSS:** CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR **FSS:** ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR **FSS:** PIERRE

ELLSWORTH (L) BVOR 110.8/RCA

HURON
§HOWES MUNI *IFR* 1NW **FSS:** HURON on Fld
1287 H51/12–30(2) (S–50, T–75, TT–132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17–35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 1–HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM **FSS:** DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE **FSS:** HURON
Remarks: VFR use only.

PHILIP (L) BVOR 108.4/PHP **FSS:** PIERRE

PIERRE (L) BVORTAC 112.5/PIR **FSS:** PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

§RAPID CITY MUNI *IFR* 8SE **FSS:** RAPID CITY on fld
3181 H62/14–32(2) (S–63, T–85, TT–140) BL6,11 S5 F4 U2 JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld.
RBn SABH 254●/RAP 102° 1.7 NM to fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

SIOUX FALLS
§JOE FOSS FIELD *IFR* 2NW **FSS:** HURON (DL)
1428 H90/3–21(3) (S–85, T–120, TT–220) BL4,6,8A,9,11 S5 F5 JP1 U2 **RVV:** Rnwys 3, 21 **RVR:** Rnwy 3. **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9–27 clsd acft over 30,000 lbs.

SOUTH DAKOTA—*Continued*

Foss Tower 118.3 122.5R **Gnd Con** 121.9
Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 I-FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

WATERTOWN (L) BVORTAC 116.6/ATY **FSS:** WATERTOWN

WINNER (L) BVOR 112.8/ISD **FSS:** PIERRE

YANKTON (L) BVOR 111.4/YKN **FSS:** HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW **FSS:** TRI-CITY on Fld
1519 H66/4-22(2) (S-95, T-125, TT-215) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 119.5 126.2
ILS[1] 109.9 I-TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 700 Vsby 3/4 mi Min Alt 2219
Remarks: [1]Glide slope unusable below 2219′ MSL. Lclzr unusable above 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME **FSS:** MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E **FSS:** CROSSVILLE (LC 267-5343)
682 H62/2-20(2) (S-90, T-120, TT-) BL4,6,8A,9,10 S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanoga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I-CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn HW 341/CQN 196° 7.7 NM to fld.
Remarks: [1]016–196° [2]197–015° Glide slope unusable below 885′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV **FSS:** NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV **FSS:** CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR **FSS:** DYERSBURG

GRAHAM (L) BVOR 111.6/GHM **FSS:** NASHVILLE

HARDEE RBn MHW 281/MKL
Remarks: Privately owned.

HIGHWAY (L) BVOR 108.4/HIY **FSS:** CROSSVILLE

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE
§McGHEE-TYSON *IFR* 11S **FSS:** KNOXVILLE on Fld
989 H90/4L-22R(3) (S-84, T-90, TT-200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.

TENNESSEE—*Continued*

Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I-TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H-SAB[1] 281●/TYS 200X 2.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]AB 1000–0300Z. **VOT:** 112.0.

McKELLER (T) BVOR 112.0/MKL **FSS:** JACKSON

§MEMPHIS METROPOLITAN *IFR* 3S **FSS:** MEMPHIS on Fld
331 H89/9-27(4) (S-105, T-150, TT-240)* BL4,6,8A,9,10,15 S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwy 3-21 & 14-32 (S-100). *Rnwy 17-35. (S-110, T-150, TT-270). 3816′ avbl lndg & tkoff both directions rnwy 14-32. 1088′ (1340′ MSL) twr 9 NM NNE. 1078′ (1333′ MSL) twr 10 NM NE. 1077′ (1349′ MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 118.3 125.2 122.5R 115.5T 110.5T 109.5T
Gnd Con 121.9
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I-MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I-TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn H-SAB 371●/TS 354° 4.7 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]087–267° [2]268–086° [3]Glide slope unusable below 400′ MSL. [4]LOM is Brooks MHW. [5]LOM is H-SAB. [6]Glide slope unusable below 350′ MSL. **VOT:** 111.0

§NASHVILLE METROPOLITAN *IFR* 5SE **FSS:** NASHVILLE on Fld
597 H80/13-31(3) (S-76, T-130, TT-220) BL4,6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 2L
Remarks: Rnwy 2R-20L-240′ overrun N end; 1185′ S end; rnwy 2L-20R-1065′ overrun S end; rnwy 13-31-1000′ overrun SE and NW end. 1368.5′ (2049′ MSL) twr 8.5 NM W. 1179′ (2049′ MSL) 9 NM NNW.
Berry Tower 119.1 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I-BNA Apch Brg 016° **LOM:**304/BN
Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.
Nashville RBn H-SAB[2] 304●/BN 016° 5.0 NM to rnwy 2L.
VHF/DF Ctc twr.
Remarks: [1]Main 1200′ til 2 mi from end of rnwy on final to rnwy 20R. LOM is H-SAB. [2]AB 0500–2200. **VOT:** 112.0.

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 275/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT **FSS:** KNOXVILLE

TEXAS

§ABILENE MUNI *IFR* 3SE **FSS:** ABILENE on Fld 1778 H60/17-35(2) (S-70, T-89, TT-145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35

Remarks: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmit 122.5 and receive 124.1 mc 20 mi out.

Tower[1] 120.1 126.2 122.7R 110.3T **Gnd Con** 121.9

Radar Services: (BCN)

App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0

Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out

ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB

(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.

Remarks: [1]Opers 0600-2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

§AMARILLO AFB/MUNI *IFR* 8E **FSS:** AMARILLO on Fld 3605 H135/3-21(2) (S-65, T-330, TT-470) BL6,8A,9,10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21

Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100' MSL. Overhead tfc ptn 5400' MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.

Tower 118.3 126.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T

Dep Con 119.5

Tfc Info Ctc App Con 25 NM out on 124.8

ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005. Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105

ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM

(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.

RBn SABH 251●/AMA 109° 1.3 NM to fld.

Remarks: [1]Glide slope unusable below 3905' MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP FSS: HOUSTON

AUSTIN

§MUELLER MUNI *IFR* 2NE **FSS:** AUSTIN on Fld 632 H73/12R-30L(5) (S-74, T-100, TT-159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVV:** Rnwy 30L

Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844' SE. 6400' avbl lndg rnwy 12R. Rnwy 16R threshold displaced 589' S. 4406' avbl lndg rnwy 16R. 1137' (2049' MSL) twr 5 NM W. 1199' (2049' MSL) twr 7 NM W.

Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9

Radar Services: (BCN)

Austin App Con 124.9 118.8 122.7R 112.5T

Austin Dep Con 120.8

ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031

Tfc Info Contact App Con 25 mi out on 118.8.

ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU

Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.

Austin RBn MHW 353/AU 305° 4.8 NM to fld.

Remarks: LOM is MHW.

BEAUMONT RBn MHW 368/BEM FSS: BEAUMONT

BEAUMONT-PORT ARTHUR

§JEFFERSON CO *IFR* 9SE FSS: BEAUMONT on Fld 16 H57/11-29(3) (S-65, T-91, TT-170)* BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16

Remarks: *Rnwy 16-34 (S-83, T-118, TT-212).

Tower 119.5 122.5R **Gnd Con** 121.9

Beaumont App Con 121.3 122.5R 114.9T

TEXAS—*Continued*

ILS 109.5 I-BPT Apch Brg 114° **LOM:** 257/BP

Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.

BEEVILLE **FSS:** ALICE

§CHASE (NAAS) FLD 45E 186 H80/13R-31L(3) BL4,6,7

Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.

Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO

BERGSTROM (L) VORW 109.8/BSM

RBn HW 293/BSM

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND

RBn SABH 326●/BGS

BORGER (L) BVOR 108.6/BGD

BRAZOS SANTIAGO RBn HW 314/PIL **FSS:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE

§RIO GRANDE VALLEY INTL *IFR* 4E AOE **FSS:** BROWNSVILLE on Fld 22 H74/13R-31(5) (S-26, T-50, TT-87)* BL4,6,7 S5 F5, JP1 JP4 U2

Remarks: Brush apch 31L. Trees apch rnwy 35R. *Rnwy 17R-35L: (S-35, T-56, TT-108). Rnwys 8-26 and 4-22 do not meet air carrier standards for day/ngt operns. No lgts rnwys 13R-31L and 8-26.

Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9

Brownsville App Con 119.5 126.2 118.1 388T

ILS 110.3 I-BRO Apch Brg 173° **LOM:** 219/BR

Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 111.4/ARO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION

§EASTERWOOD FIELD *IFR* 2SW **FSS:** COLLEGE STATION on Fld 319 H51/10-28(3) (S-30, T-40, TT-) BL4 S3 F4 JP1

Remarks: Services offered dalgt hrs only.

Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9

College Station App Con[2] 118.5 126.2

College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.

Remarks: [1]Oper 1200-0400Z. [2]App Con from Houston ARTCC 0400-1200Z.

CONNALLY RBn MHW 400/CNW

§CORPUS CHRISTI INTL *IFR* 5W **FSS:** ALICE (LC TU 4-5712) 43 H56/13-31(2) (S-96, T-108, TT-152) BL4,6,8A,9 S5 F4, TP-1 JP4 U2 **RVV:** Rnwy 13

Remarks: Amber flashing lgt for rgt ptn. US Customs-lndg rts arpt 0800-1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.

Tower 120.9 122.5R **Gnd Con** 121.9

Radar Services:

App Con 118.3 125.4 122.7R 134.1

Dep Con 124.8

ILS 110.3 I-CRP Apch Brg 127° **LOM:** 393/CR

(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.

RBn SBH 382/CRP 216° 2.2 NM to fld.

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS

§ADDISON *IFR* 9N **FSS:** DALLAS (LC FL2-8491)
643 H52/15-33(2) (S-50, T-70, TT-120) BL4 S5 F5 JP1 U2
REIL: Rnwy 15
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°-307° [2]308°-126°.

§DALLAS LOVE FIELD *IFR* 5NW **FSS:** DALLAS on Fld
485 H88/13R-31L(3) (S-100, T-150, TT-350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R
RVR: Rnwy 13L
Remarks: U.S. Customs lndg rgts arpt 0030-1430 Mon-Fri, 0030-1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[3] 125.2 125.8[2] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I-DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°-307° [3]308°-126° [4]Glide slope unusable below 677' MSL due roughness. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

§RED BIRD *IFR* 6SW **FSS:** DALLAS (LC FL2-8491)
660 H44/13-31(2) (S-35, T-60, TT-110) BL4 S5 F4, JP1 U2
Remarks: 1521' (2349' MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8[1] 119.8[2] 125.2 122.5R 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°-307° [2]308°-126° [3]Oper 1200-0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

DYESS (L) VOR 109.2/DYS
RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

§EL PASO INTL *IFR* 4NE (AOE) **FSS:** EL PASO on Fld
3956 H120/4-22(3) (S-95, T-156, TT-280) BL4,5,6,8A,9,11 S5 F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26
Remarks: Rnwy 4 threshold displaced 1000' NE. 11,000' avbl lndg rnwy 4. Rnwy 17 threshold displaced 395' S. 6606' avbl lndg rnwy 17.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
Dep Con 119.1
Tfc Info: Expanded radar service avbl
ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I-ELP Apch Brg 218° **LOM:** 266/EL
(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.
RBn H-SAB 242●/ELP 258° 3.2 NM to fld.
Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH

§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE **FSS:** FORT WORTH (DL)
568 H90/17-35(2) (S-83, T-120, TT-210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13
Remarks:1074' (1679' MSL) twr 10.5 NM WSW.
Southwest Tower 120.5 126.2 122.7R **Gnd Con** 121.8
Radar Services:
Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T
Fort Worth Dep Con 123.9 122.7R
Tfc Info Ctc App Con 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I-GSW Apch Brg 129° **LOM:** 219/GS
Greater Southwest (L) BVORTAC 110.6/GSW at fld.
VHF/DF[1] Ctc twr.
Remarks: [1]VHF/DF inop til Oct 27. **VOT:** 111.8.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld
692 H52/17-35(3) (S-60, T-80, TT-) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17
Remarks: P-line SE.
Tower[1] 118.3 126.2 122.7R **Gnd Con** 121.9
Radar Services:
Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T
Fort Worth Dep Con 123.9 122.7R
ILS 109.9 I-FTW Apch Brg 174° **LOM:** 365/FT
Fort Worth RBn H-SAB[2] 365●/FT 174° 3.5 NM to rnwy 17
Remarks: [1]Oper 1300-0500Z. Wea bcsts discontd 2400-0500 excp forecast. LOM is H-SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON
RBn HH-SAB[1] **206●/GLS**
Remarks: [1]Ctld by Houston FSS.

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK

GREENVILLE

§MAJORS FIELD *IFR* 4SE **FSS:** DALLAS
544 H80/17-35(2) S-26, T-50, TT-) BL4 S5 F4
Remarks: Rgt tfc rnwy 17.
Tower[1] 121.3 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 1330-2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE

HOOD (L) VORW 111.8/HLR
RBn MHW 347/HLR

TEXAS—*Continued*

HOUSTON
§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld
48 H76/3-21(2) (S-75, T-107, TT-185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12
Remarks: U.S. Customs lndg rgts arpt 0800-1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12-30, 3-21 not usable for lndgs or taxg acft; usable rnway pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del: 127.6
ATIS 119.7
Radar Services:
App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T
Dep Con 120.2 126.2
Tfc Info. · Expanded radar service avbl.
ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448
Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548
ILS 109.9 I-HOU Apch Brg 036° **LOM:** 251/HO
Houston (H) BVORTAC 115.9/HOU on fld.
VHF/DF Ctc twr.
Remarks: [1]218°-008° [2]009°-217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/IDU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN
1515 H63/17-35(1) L4,11 U1 **REIL:** Rnwy 35
Tower[1] 126.2
Radar Services:
Austin App Con 124.9 118.8 122.7R
Austin Dep Con 120.8
RBn MH. 393/JCY 346° 2 NM to fld.
Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (H) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

KELLY (L) VORW 113.8/SKF
RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI

§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2-3612)
524 H49/15-33(1) (S-25, T-37, TT-) BL4 S3 F4 U1
Remarks: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T.
VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.
(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.

LAUGHLIN (L) VOR 114.4/DLF
RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FSS:** SAN ANTONIO

LEONA (L) BVORTAC 110.8/LOA **FSS:** COLLEGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

LONGVIEW
§GREGG COUNTY MUNI *IFR* 6SE **FSS:** GREGG COUNTY on Fld
365 H61/17-35(3) (S-75, T-100, TT-) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13
Tower 118.9 122.5R **Gnd Con** 121.9
ILS 109.5 I-GGG Apch Brg 127° **LOM:** 410/GG
Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

§LUBBOCK MUNI *IFR* 4NE **FSS:** LUBBOCK on Fld
3269 H85/17R-35L(5) (S-90, T-150, TT-250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R
Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl lndg rnwy 35L. Clsd to tactical mil jet acft.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 125.8 112.9T 109.5T 110.8T
Dep Con 119.3
Tfc Info: Ctc App Con 25 mi out.
ASR [1]Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Alt 3669
ILS 109.5 I-LBB Apch Brg 169° **LOM:** 219/LB
(L)BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12
Remarks: [1]Oper 1200-0400Z.

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI
Remarks: Opers 1415-2215Z

McALLEN
§MILLER INTL *IFR* 2S (AOE) **FSS:** McALLEN on Fld
106 H49/13-31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13
Remarks: Rnwy 31 threshold displaced 542′ NE.
McAllen Tower [1]118.9 122.5R **Gnd Con** 121.9
McAllen App Con 118.9
Brownsville App Con[2] 119.5 126.2 118.1
McAllen (L) BVOR 109.8/MFE on fld
Remarks: [1]Oper 1200-0400Z. [2]Oper 0400-1200Z.

§MIDLAND AIR TERMINAL *IFR* 8SW **FSS:** MIDLAND on Fld
2870 H83/10-28(4) (S-100, T-128, TT-280) BL4,6,8A,9 S5 F5,JP2 U2 **RVV:** Rnwy 10
Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl lndg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
App Con 121.1 122.5R 114.8T 110.3T
ILS 110.3 I-MAF Apch Brg 103° **LOM:** 344/MA
VHF/DF Ctc FSS
(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.

MINERAL WELLS (H) BVORTAC 117.7/MWL **FSS:** MINERAL WELLS
RBn BMH 284/MWL

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CORPUS (L) VORW 109.2/NGP
RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PERRYTON RBn MHW 266/PYX **FSS:** GAGE
Remarks: VFR use only.

PLAINVIEW
§HALE COUNTY *IFR* 1S **FSS:** AMARILLO (LC CA 3-2148)
3372 H52/4-22(2) (S-30, T-40, TT) BL4 S5 F4 U2
Remarks: Hangar NE.
Plainview Tower[1] 118.9 122.5R **Gnd Con** 121.7
Lubbock App Con 118.1 126.2 112.9T
Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.
Remarks: [1]Oper 1200-0400Z.

TEXAS—*Continued*

QUITMAN (L) VORW 114.0/UIM FSS: TYLER

RANDOLPH RBn HW 359/RND

ROCKSPRINGS (L) BVORTAC 111.2/RSG FSS: SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI **FSS:** BEAUMONT

SALT FLAT (L) BVORTAC 113.0/SFL **FSS:** EL PASO

SAN ANGELO
§MATHIS FIELD *IFR* 7SW FSS: SAN ANGELO on Fld
1915 H59/3–21(3) (S–35, T–56, TT–) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3
Remarks: Rnwy 9–27 clsd to acft over 25,000 lbs GWT.
Tower 118.3 122.5R **Gnd Con** 121.9
San Angelo App Con 119.2 118.3 122.5R 115.1T 109.7T
ILS 109.7 I–SJT Apch Brg 033° **LOM:** 356/SJ
San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

§SAN ANTONIO INTL *IFR* 7N **FSS:** SAN ANTONIO on Fld
808 H85/12-30(3) (S–150, T–225, TT–300) BL4,6,8A,9 S5 F4, JP1 U2 **RVR:** Rnwy 3, 12
Remarks: U.S. customs lndg rgts arpt 1000–2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′. Rnwy 3–21 usable length 4519′.
Tower 118.9 122.5R **Gnd Con** 121.9
Clrnc Del 127.3
Radar Services:
App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 1208
ILS 110.9 I–ANT Apch Brg 123° BC unusable **LOM:** 305/AN
109.7 I–SAT Apch Brg 032° **LOM:** 219/SA
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
VHF/DF Ctc twr.
Remarks: **VOT:** 110.4.

SAN ANTONIO
§STINSON MUNI *IFR* 5S FSS: SAN ANTONIO (LC TA 6–9575)
577 H48/9–27(3) (S–40, T–75, TT–) BL5 S5 F4
Remarks: Trees all apchs. Tfc 800′ above terrain 1367′ MSL. Rnwy 14 threshold displaced 600′ SE; rnwy 32–400′ NW.
Tower[1] 119.5 122.7R **Gnd Con** 121.7
Radar Services:
San Antonio App Con 120.3 134.1 126.5 126.2R 122.7R
San Antonio Dep Con 123.9
Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld
Remarks: [1]Oper 1300–0500Z.

SEGUIN RBn HW 371/UCT
Remarks: VFR only. Opers daylight hours Mon-Fri.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR **FSS:** DALLAS

TANK RBn BH 388/DDA **FSS:** DALLAS

TEMPLE (L) BVOR 110.4/TPL **FSS:** WACO

TEXICO (H) BVORTAC 112.2/TXO **FSS:** TUCUMCARI

TRADEWIND RBn MHW 338/AM **FSS:** AMARILLO

TYLER
§POUNDS FIELD *IFR* 4W FSS: TYLER on Fld
544 H52/13–31(3) (S–40, T–60, TT–100) BL5,6,8A,9 S5 F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl lndg rnwy 17.
Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I–TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT **FSS:** PALACIOS (512) 445–1281

§WACO MUNI *IFR* 5NW **FSS:** WACO on Fld
515 H57/18–36(3) (S–26, T–38, TT–)* BL4,6,8A,9 S5 F5 U2 **RVV:** Rnwy 18
Remarks: *Rnwy 14–32 (S–57, T–68, TT–104) Rnwy 5 threshold displaced 453′ E. Usable length rnwy 23–5500′; rnwy 5–5049′.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 115.3T
Dep Con 125.4
ILS 109.7 I–ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS
§SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5N **FSS:** WICHITA FALLS on Fld
1015 H131/15–33(2) (S–65, T–300, TT–530) BL4,6,8A,9,10 S5 F4, JP1 JP5 U2 **VASI:** Rnwy 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700′ rectangular tfc ptn 2200′ MSL. Rgt tfc rnwys 17 & 33. Rnwy 17–35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Wichita Falls App Con 118.2 122.5R 109.7T
Wichita Falls Dep Con 118.2
ILS 109.7 I–SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.8 NM to rnwy 33.
VHF/DF Ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK **FSS:** WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL **FSS:** SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE **FSS:** BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC **FSS:** CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA **FSS:** SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG

HANKSVILLE (H) BVORTAC 115.9/HVE **FSS:** CEDAR CITY

LA SAL (L) BVORTAC 112.9/LXL **FSS:** GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU **FSS:** SALT LAKE CITY

MILFORD (H) BVORTAC 112.1/MLF **FSS:** CEDAR CITY

MYTON (H) BVORTAC 117.9/MTU **FSS:** GRAND JUNCTION

§OGDEN MUNI *IFR* 3SW **FSS:** SALT LAKE CITY (LC 394–8712)
4455 H73/3–21(3) (S–100, T–160, TT–280) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000′ NE end. 6300′ avbl lndg day/ngt rnwy 21 and lndg rnwy[3]. Tkof rnwy 21 ngts 7300′ avbl lndg rnwy 3 and tkof rnwy 21 days.
Tower[1] 118.7 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1

UTAH—*Continued*

Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
VHF/DF Ctc FSS and twr.
Remarks: [1]Oper 1300–0500Z.

PROVO (H) BVORTAC 116.6/PVU **FSS:** SALT LAKE CITY (LC 374–6327)

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§SALT LAKE CITY MUNI NO. 1 ***IFR*** 4W **FSS:** SALT LAKE CITY on Fld
4226 H100/16R–34L(2) (S–100, T–150, TT–240)
BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: *Rnwy 16L–34R (S–100, T–150, TT–300). Rnwy 14–32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500–2330Z Mon-Fri. No service holidays.
Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
ATIS: 116.8
Radar Services: (BCN)
Salt Lake App Con 120.9 122.7R 116.8T 109.5T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I–SLC Apch Brg 339° **LOM:** 239/SL
(H) VORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF[1] Ctc FSS
Remarks: [1]VHF/DF unusable 350–140°, 170–225° beyond 15 NM at MOCA. **VOT:** 111.0

VERNAL (L) BVOR 108.2/VEL **FSS:** GRAND JUNCTION

VERMONT

§BURLINGTON MUNI ***IFR*** 2E AOE **FSS:** MONTPELIER (LC 878–3393)
335 H78/15–33(2) (S–62, T–110, TT–195) BL5,6,8A,9 S5 F5, JP1, JP4 U2 DT2 **RVV:** Rnwys 15 and 33
Tower 118.3 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 122.5R 110.3T
Dep Con 119.2
ILS 110.3 I–BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H–SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF Ctc twr
Remarks: **VOT:** 109.0.

MONTPELIER (L) BVOR 108.2/MPV **FSS:** MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK **FSS:** MONTPELLER

RUTLAND RBn MHWZ 391/RUT **FSS:** GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD **FSS:** LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA **FSS:** BLUEFIELD

BLACKSTONE RBn MHW 326/BKT **FSS:** BLACKSTONE (0600–2200)
FSS: RICHMOND (2200–0600)

BROOKE (L) BVORTAC 111.8/BRV **FSS:** WASHINGTON

CAPE CHARLES (L) BVORTAC **FSS:** NEWPORT NEWS
112.2/CCV

CASANOVA (L) BVORTAC 109.6/CSN **FSS:** WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE ***IFR*** 7N
FSS: CHARLOTTESVILLE on fld

VIRGINIA—*Continued*

634 H60(1) BL6,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
Remarks: Rnwy 21 threshold displaced 270′ SW.
ILS 109.1 I–CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.7 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD **FSS:** ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN **FSS:** DANVILLE

ECLIPSE RBn HW 209/NGU

EVINGTON RBn MHW 385/EVI **FSS:** ROANOKE

FELKER (T) VOR 111.4/FAF
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU
RBn MHW 356/NTU

FLAT ROCK (H) BVORTAC 113.3/FAK **FSS:** RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN **FSS:** NEWPORT NEWS
RBn H 362/FKN. Private facility

FRONT ROYAL (H) BVORTAC 115.3/FRR **FSS:** MARTINSBURG

GORDONSVILLE (H) BVORTAC **FSS:** CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM **FSS:** NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN **FSS:** WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW **FSS:** RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP **FSS:** ROANOKE
Remarks: Private Facility

LANGLEY (L) VOR 111.6/LFI

LAWRENCEVILLE (L) BVOR 112.9/LVL **FSS:** BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE **FSS:** ROANOKE

LINDEN (L) BVORTAC 114.3/LDN **FSS:** WASHINGTON

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§LYNCHBURG MUNI-PRESTON GLENN FLD ***IFR*** 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sep 6.
Lynchburg Tower 120.7 122.5 R **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS[1] 110.1 I–LYH Apch Brg 032°
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: [1]BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR **FSS:** CHARLOTTESVILLE
112.6/MOL

MORRISON RBn MHW 248/MOV

NAVY NORFOLK SMRLWZ 269/NGU

NEWPORT NEWS
§PATRICK HENRY ***IFR*** 9NW **FSS:** NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVR:** Rnwy 6
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30–Sep 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 126.8
Tfc Info: VFR Adv service ctc Norfolk App Con 25 mi out.
ILS 110.1 I–PHF Apch Brg 065° **LOM:** 375/PH
Remarks: BC unusable below 1500′ MSL beyond 5 NM.

VIRGINIA—*Continued*

§NORFOLK MUNI *IFR* 5NE **FSS:** NEWPORT NEWS (DL)
27 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5
F5, JP1 U2 DT **RVV:** Rnwy 4
Remarks: DT May 30–Sep 5. Rgt tfc rnwy 1, 4, 13. U.S. Customs lndg rgts arpt. Rnwy 13 threshold displaced 214′ SE. 4662′ avbl lndg rnwy 13. 4876′ avbl lndg rnwy 31 and tkof rnwy 13. Rnwy 19 threshold displaced 966′ SW. 4034′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both directions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibited from making eng runup when facing SE at the apch end of rnwy 4. Fuel & services apbl 0600–2300.
Tower 121.1 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 127.2 **Dep Con** 118.5
Tfc Info: Expanded radar service avbl 118.9.
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526
ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF Ctc twr.

PULASKI (H) BVORTAC 115.9/PSK **FSS:** BLUEFIELD
Rng SBMRAZ[1] 272/PK
Remarks: [1]Reliable reception distance 40 NM.

RICHMOND
§RICHARD E. BYRD FLYING FIELD *IFR* 6 E **FSS:** RICHMOND on Fld
167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5
F5, JP1, JP4 U2 DT **RVV:** Rnwy 6
Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ operrun each end rnwy 15–33. DT May 30-Sep 5.
Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Richmond App Con 119.0 126.2 122.5R 119.9 110.3T
Richmond Dep Con 118.2
Tfc Info: Lndg acft ctc App Con 35 mi out on 119.9
ASR Rnwys 2, 15,[1] 20, 24,[1] 33[1] Ceil 400 Vsby 1 mi Min Alt 567
Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667
ILS 110.3 I–RIC Apch Brg 063° **LOM:** 382/RI
Richmond (H) BVORTAC 114.1/RIC on fld.
Richmond SBH 260/RIC 018° 1.7 NM to fld.
Remarks: [1]400-¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT:** 110.8.

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§ROANOKE MUNI *IFR* 3 NW
FSS: ROANOKE on Fld
1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5
F5, JP1 U2 DT **REIL:** Rnwy 23
Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sep 6.
Tower 118.3 120.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 126.9 122.5R 120.2 109.0T
Dep Con 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374
Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV **FSS:** DANVILLE

SPRINGFIELD RBn MHW 353/SRI **FSS:** WASHINGTON

WOODRUM (T) VOR 109.0/ODR **FSS:** ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI **FSS:** BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K

ELLENSBURG (L) BVORTAC 117.9/ELN **FSS:** WENATCHEE

EPHRATA (H) BVOR 116.8/EPH **FSS:** EPHRATA

EVERETT
§PAINE FIELD *IFR* 6 SW **FSS: SEATTLE (DL)**
603 H90/16–34(2) (S–100, T–200, TT–400) BL6, 8A, 9 S5
F4, JP4 U2 DT2
Remarks: Rnwy 11 threshold displaced 1600′. Jet arresting barrier 3″ above rnwy 16/34 J-bar each end rnwy 34 not visible to twr 2000′ to 4000′ from apch end. Due constrn twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.
Tower 121.3 126.2 122.5R
Radar Services:
Seattle Center App Con 121.2
ASR Rnwy 16 Ceil 200 Vsby ½ mi Min Alt 803
ILS 109.3 I–PAE Apch Brg 158° **LOM:** 396/PAE
Everett (L) VOR 114.2/PAE on fld.
Everett RBn HW 396/PAE 158° 7.9 NM to fld
Remarks: LOM is HW.

GRAY RBn MH 216/GRF

HOQUIAM (H) BVORTAC 115.4/HQM **FSS:** HOQUIAM
Remarks: Restricted to awy and apch only.

KITSAP RBn MHW 206/PWT **FSS:** SEATTLE
Remarks: Operd by County.

MOSES LAKE **FSS:** EPHRATA (DL)
GRANT COUNTY 5.5 NW
1186 H135(2) BL5,6 **RVR:** Rnwys 14, 32
Remarks: Apch lgts unattended when twr not in opern. 1000′ asphalt overrun both rnwys each end.
Tower[1] 118.1 122.7R 117.0T **Gnd Con:** 121.9
ILS 109.5 I–MWH **LOM:** 408/MW
Moses Lake (L) VOR 117.0/MWH
Moses Lake RBn MHWZ 408/MW
Remarks: [1]Oper 0700–2400 Mon-Fri; 0700–2300 Sat-Sun. [2]RBn, ILS & VOR VFR practice only; monitored during hrs twr in opern. LOM is MHWZ.

NEAH BAY RBn HW 391/EBY **FSS:** SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM **FSS:** SEATTLE

PASCO (L) BVOR 108.4/PSC **FSS:** WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM **FSS:** SEATTLE

PULLMAN (L) BVOR 109.0/PUW **FSS:** WALLA WALLA

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§RENTON MUNI *IFR* Adj NW **FSS:** SEATTLE (LC RO 2–4000)
29 H53/15–33(1) (S–100, T–190, TT–300) BL5 S5
F4, U2 JP4 DT2
Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195–300° at 1000′ MSL beyond 2 mi.
Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9
Seattle Dep Con 119.2
Remarks: [1]Oper 0700–2300 lcl time.

SEATTLE
§KING COUNTY ARPT, BOEING FIELD *IFR* 4 S **FSS:** SEATTLE on fld
17 H1000/13–31(2) (S–100, T–160, TT–290)* BL6, 11, 12 S5
F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
Remarks: *Rnwy 12–30 (Max–12.5)
Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2
ILS[1] 110.9 I–BFI Apch Brg 128° BC unusable **LOM:** 260/BF

WASHINGTON—*Continued*

Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.
Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

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§SEATTLE-TACOMA INTL ***IFR*** 10 S FSS: SEATTLE (DL)
428 H119/16–34(2) S–45, T–145, TT–300) BL4,6,8A,9,14
S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Remarks: U.S. Customs lndg rgts arpt.
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I–SEA Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I–SZI[1] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF Ctc twr.
Remarks: [1]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

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§SPOKANE INTL ***IFR*** 5 S FSS: SPOKANE
2372 H90/3–21(2) (S–100, T–200, TT–350) BL5, 6, 8A, 9
S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3–21.
Tower 118.3 122.5R ~~121.6~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3
Tfc Info Ctc Spokane App Con aprx 20 mi out.
ILS 109.9 I–GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: VOT: 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW FSS: SEATTLE

WALLA WALLA
CITY COUNTY ***IFR*** 3NE FSS: WALLA WALLA on fld
1205 H72/2–20(3) BL4, 6, 8A, 9 S5 F4 DT2
Remarks: 1030′ overrun NE end; 1500′ overrun SW end.
Tower 118.5 122.7R
PAR Rnwy 20 Ceil 200 Vsby ½ mi Min Alt 1405
(L) BVOR 111.8/ALW
RBn BH 356/ALW
Remarks Oper 1500–2300Z Mon-Fri; clsd holidays. AAS provided by FSS when twr not in opern.

WENATCHEE (L) BVOR 111.0/EAT FSS: WENATCHEE

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§YAKIMA MUNI ***IFR*** 2 S FSS: YAKIMA on Fld
1082 H55/9–27(3) (S–50, T–60, TT–100) BL4, 6 8A, 9 S5
F5, JP1, JP4 U2 **RVR:** Rnwy 27
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.7 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I–YKM Apch Brg 269° **LOM:** 284/YK
(H) BVOR[1] 116.0/YKM 244° 3.6 NM to fld
Remarks: [1]To be BVORTAC Oct 20.

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW FSS: CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF FSS: BLUEFIELD

CHARLESTON
§KANAWHA ***IFR*** 2 NE FSS: CHARLESTON on Fld
982 H56/5–23(2) (S–150, T–200, TT–44) BL4, 6, 8A, 9, 11

WEST VIRGINIA—*Continued*

S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:
Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I–CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/SRW 084° 8.1 NM to fld
VHF/DF Ctc twr.
Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. **VOT:** 111.0.

CLARKSBURG (L) BVOR 115.1/CKB FSS: MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN FSS: ELKINS
Rng SBMRAZ[1] 245/EN
Remarks: [1]Reliable reception distance 40 NM.

HENDERSON (L) BVORTAC 111.2/HNN FSS: HUNTINGTON

HUNTINGTON
§TRI-STATE (WALKER LONG FLD) ***IFR*** 6 SW
FSS: HUNTINGTON on Fld
828 H53/11–29(1) (S–50, T–75, TT–135) BL6, 8A, 9 S5
F4, JP1 U2 DT1
Huntington Tower 120.9 122.5R **Gnd Con** 121.9
Huntington App Con 118.5 122.5R 109.9T
ILS[1] 109.9 I–HTS Apch Brg 114° **LOM:** 287/HT
Huntington RBn BH 323/HTW 199° 2.5 NM to fld.
Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL FSS: ELKINS

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§MARTINSBURG MUNI ***IFR*** 4 S FSS: MARTINSBURG on Fld
556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2
Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Dulles App Con 119.2 126.1
Dulles Dep Con 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ¾ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.
Remarks: [1]Oper 0830–1630 lcl time Tues, Thur, Sat and Sun; 0830–2200 lcl time Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 lcl time Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW **FSS:** MORGANTOWN
RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB **FSS:** PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL **FSS:** CHARLESTON

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§WHEELING-OHIO COUNTY ***IFR*** 7 N FSS: WHEELING on Fld
1195 H50/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12
F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21
Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9
ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL
Wheeling (L) BVORTAC 112.2/HLG 220° 5.8 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU
FSS: ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW **FSS:** GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ **FSS:** WAUSAU

WISCONSIN—*Continued*

CAMP MC COY RBn MHW 412/CAY

DELLS (L) BVORTAC 110.4/DLL FSS: LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU FSS: EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD FSS: GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG FSS: MINNEAPOLIS

GREEN BAY
§AUSTIN STRAUBEL ***IFR*** 7 SW FSS: GREEN BAY on Fld
694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT2 **RVR:** Rnwy 6
Remarks: U.S. Customs lndg rgts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE
Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9
Green Bay App Con 119.4
VFR ADV Ctc App Con on 119.4.
ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR
Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.
VHF/DF Ctc FSS.

JANESVILLE
ROCK COUNTY ***IFR*** 4 SW FSS: ROCKFORD (LC EN5639)
808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2
REIL: Rnwy 4
Remarks: Rnwy 22 threshold displaced 698′ NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.
Tower[1] 121.2 122.7R 121.5x[2] **Gnd Con** 121.9
Rockford App Con 119.6
(L) BVORTAC 113.4/JVL
Remarks: [1]Opers 0600–2200 lcl time. [2]Thru Rockford FSS.

LACROSSE (T) BVOR 108.4/LSE FSS: LACROSSE
RBn MHW 371/LSE

LAND 'O LAKES RBn MHW 396/LNL FSS: WAUSAU
Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR FSS: LONE ROCK

MADISON
§TRUAX FIELD ***IFR*** 5 NE FSS: MADISON on Fld
859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36
Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.
Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9
Madison App Con 120.1 126.2 109.9T
Madison Dep Con 118.8
VFR ADV Ctc App Con on 120.1.
ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN
Madison RBn MHW 400/MSN 359° 3.9 NM to fld.
Truax (L) BVOR 115.5/TAX at fld.
VHF/DF Ctc FSS.
Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW FSS: GREEN BAY

MARSHFIELD RBn MHW 391/MFI
Remarks Operd by City

MILWAUKEE
§GENERAL MITCHELL FLD ***IFR*** 5 S FSS: MILWAUKEE on Fld
722 H99/1–19(4) (S–100. T–185, TT–350) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwys 1, 7R
Remarks: U.S. Customs lndg rgts arpt. Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N. Rnwy 7L threshold displaced 667′ NE. Rnwy 25R threshold displaced 944′ SW. Air carrier turbo-jet trng lndgs and tkofs prohibited 0330–1100Z. Tkofs permitted rnwy 7R btn 040–100° and wind velocity greater than 10 knots only.
Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 120.0
ATIS: 110.3.
Radar Services: (BCN)
Milwaukee App Con 126.5 123.8 126.2 116.4 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19[2] 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK
110.7[3] I–GMF Apch Brg 070° **LOM:** 242/GM
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Mitchell RBn H–SAB 242●/GM 070° 5.8 to rnwy 7R
VHF/DF Ctc twr.
Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. [2]Do not descend below 1800′ til ctlr adpise passing 5 mi radar fix. [3]To be comsnd. (LOM will be H–SAB). **VOT:** 109.0.

§TIMMERMAN FIELD ***IFR*** 5 NW FSS: MILWAUKEE (DL)
745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County Arpt Director except emgcy.
Tower[1] 120.5 122.5R 121.5x[4] **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[2] 126.2 123.8[3] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info Ctc Milwaulkee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200–0400Z. [2]360–179. [3]180–359. [4]Thru Mitchell Twr or Milwaukee FSS.

OSHKOSH
§WINNEBAGO CO ***IFR*** 1 SW FSS: GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC FSS: MILWAUKEE

REWEY (L) BVOR 115.8/RWY FSS: LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI FSS: WAUSAU

SHEBOYGAN MHW 254/SBM

STEVENS POINT (L) BVOR-DME 110.6/STE FSS: WAUSAU
Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC FSS: MILWAUKEE

TRUAX (L) BVOR 115.5/TAX

VOLK (L) VOR 109.0/VOK
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW FSS: WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI FSS: ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY FSS: WORLAND

§CASPER AIR TERMINAL *IFR* 7 NW FSS: CASPER on Fld
5348 H90/16-34(4) (S-80, T-146, TT-288) BL4, 6, 8A, 9
S5 F4, JP4 U2
Remarks: 1000′ overruns on each end rnwy 3-21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I-CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVORTAC 112.2/CKW FSS: RAWLINS

§CHEYENNE MUNI *IFR* 1 N FSS: CHEYENNE on Fld
6155 H93/8-26(3) (S-90, T-121, TT-270) BL4, 6, 8A, 9, 11 S5
F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
App Con 120.0 122.5R 113.1T 109.9T
VFR ADV Ctc App Con on 120.0 aprx 25 mi out.
ILS 109.9 I-CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1/CYS 196° 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI FSS: SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW FSS: CASPER

DUNOIR (L) BVOR 113.4/DNW FSS: WORLAND

FORT BRIDGER (L) BVORTAC 108.6/FBR FSS: ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC FSS: IDAHO FALLS
Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR FSS: LARAMIE

MEDICINE BOW (L) BVORTAC 114.1/MBW FSS: LARAMIE

RIVERTON (L) BVOR 108.8/RIW FSS: WORLAND

§ROCK SPRINGS MUNI *IFR* 7E FSS: ROCK SPRINGS on Fld
6747 H67/7-25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I-RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290●/RKS
VHF/DF Ctc FSS.

SHERIDAN (L) BVORTAC 115.3/SHR FSS: SHERIDAN

SINCLAIR RBn SBH 368/SIR FSS: RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE FSS: SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ FSS: SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W FSS: SAN JUAN
10 H53/9-27(1) (S-52, T-88, TT-160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100-0200Z

§PUERTO RICO INTL 6E FSS: SAN JUAN
9 H100/7-25(1) (S-100, T-200, TT-400) BL-6, 11 S5 F5 JP1, JP4,
JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9
ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391/SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP FSS: SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX FSS: ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100-0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W FSS: SAN JUAN
11 H42/9-27(1) (S-30, T-45, TT-70) BL5 F4
Remarks: U.S. Customs lndg rgts arpt.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000-0200Z. [2]Private; oper 1100-0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE PART I DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)	VHF (High)
119.8 120.1 124.5 124.6	132.65 132.9 133.0 133.05
124.7 125.2 125.4 125.9	133.45 133.55 133.65 133.8
126.0 126.4 126.9 127.2	133.85 134.35 134.45 134.75
132.3 134.5	135.05 135.15 135.3 135.7
	135.8

ATLANTA

VHF (Low)	VHF (High)
118.9 120.0 120.3 120.8	132.25 132.75 132.85 132.9
120.9 121.2 123.8 124.1	133.1 133.35 133.7 134.45
124.4 125.2 125.5 126.4	134.55 134.6 135.15 135.75
126.6 126.8 127.55 127.8	
127.95 128.3 128.6 128.65	
128.75 135.6	

BOSTON

VHF (Low)	VHF (High)
119.0 121.0 124.0 124.2	127.8 128.1 132.5 132.65
124.9 125.8 127.0 127.1	132.9 133.5 134.3 134.7
127.3 127.6 127.8 127.9	134.45 134.95 134.85
128.1 128.2 132.4 132.5	
132.65 135.7	

CHICAGO

VHF (Low)	VHF (High)
119.4 119.6 120.2 120.4	124.5 127.95 128.65 132.15
120.6 120.8 121.4 123.9	132.4 132.5 132.75 133.1
124.0 124.1 124.4 124.8	133.35 133.5 133.7 133.9
125.1 125.2 125.6 126.4	133.95 134.85 135.1 135.35
126.6 126.8 127.0 127.1	135.55
127.5 127.6 127.7 127.8	
128.0 128.05 128.2 128.4	
128.5 128.7 132.2 132.3	
133.9	

CLEVELAND

VHF (Low)	VHF (High)
118.8 118.9 119.6 119.8	132.25 132.45 133.25- 133.3
120.2 120.3 120.4 120.6	133.95 134.25 134.65
120.8 121.2 121.4 123.9	
124.2 124.3 124.4 124.6	
125.0 125.1 125.2 125.3	
125.6 125.7 126.1 126.4	
126.8 127.15 127.45 127.5	
127.65 127.9 128.35 128.45	
128.6 134.3	

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)	VHF (High)
119.8 124.1 125.0 125.6	127.55 128.2 132.1 132.05
125.8 126.0 127.2 127.8	132.15 132.85 133.15 127.3
132.5 132.7 133.0 133.4	133.3 133.75 133.85 134.4
134.6	134.65 134.7 135.5 135.15
	135.65

FORT WORTH

VHF (Low)	VHF (High)
119.4 124.4 124.6 124.7	132.2 132.35 132.45 132.55
124.8 125.0 125.5 125.6	132.75 133.25 133.35 133.5
126.0 126.6 127.3 127.7	133.55 133.7 133.95 134.25
128.1 128.3 128.8 133.1	134.55 134.85 135.1 135.35
133.3 133.9 135.0 135.6	135.4 135.6 135.75

GREAT FALLS

VHF (Low)	VHF (High)
120.4 124.1 125.0 125.1	118.9 125.0 132.25 132.65
125.8 125.9 126.4 126.5	132.95 133.4 133.55 134.55
127.6	135.25 135.55

HOUSTON

VHF (Low)	VHF (High)
118.2 118.9 120.6 120.7	127.8 132.15 132.4 132.5
121.0 121.2 124.0 124.1	132.6 132.7 132.8 132.95
124.2 125.8 125.9 126.0	133.05 133.4 133.65 133.75
126.4 126.6 126.8 126.9	133.85 134.35 134.8 134.95
126.95 127.0 127.2 128.0	135.2
128.1 128.2 128.3 128.4	
132.9 134.7	

INDIANAPOLIS

VHF (Low)	VHF (High)
118.2 124.2 124.4 124.8	128.25 132.7 133.05 133.45
126.0 127.0 127.1 127.3	133.75 134.35 134.75 134.9
127.4 128.3 128.4 128.55	134.95
128.8 132.2 132.6 135.1	
135.7 135.8	

ARTCC COMMUNICATIONS FREQUENCIES

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
121.3	124.3	124.7	125.1	133.25	133.95	134.25	134.75
125.5	126.5	126.9	127.2	134.85	135.4	135.05	135.25
128.1	132.3	132.5	132.8	135.55	135.65		
133.4	133.5	134.3	134.7				

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.5	135.4			
125.9	127.4	127.5	127.6				
127.7	127.8	128.1	128.4				
128.6	132.1	134.6	134.9				

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	125.8	127.9	128.3	128.6	132.15
125.0	125.8	126.0	126.4	133.05	133.25	133.55	134.8
126.6	127.1	127.3	127.4	134.55	134.75	134.95	135.25
128.2	128.4	128.8	132.3	135.45			
132.5	132.6	133.4	133.8				
134.2	134.4	134.6					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	126.1	127.1	134.25	134.9	135.3	135.5
127.2	127.25	127.3	127.4	135.7			
127.6	127.75	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	125.8	127.7	132.7
124.4	124.5	124.7	125.4	132.15	132.95	133.65	133.8
125.6	125.8	126.4	127.0	134.35	134.5	134.95	135.5
127.2	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.3	132.15	133.4	133.55	133.65
125.5	125.6	125.9	126.0	133.85	134.25	134.45	134.8
126.1	127.1	127.2	127.3	134.55	135.45	135.7	
127.8	127.9	128.6	132.1				
132.6	134.6	134.8					

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.2	132.1	132.3	132.75	132.95
124.8	125.1	125.3	125.4	133.8	133.9	134.8	135.45
125.5	125.6	126.0	126.4	135.55	135.75		
126.6	126.8	126.9	127.95				
128.2	128.3	128.5	128.65				
128.7	132.6	134.6	135.1				
135.55	135.6	135.65					

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	128.15	132.05	132.8	132.65
121.2	123.8	123.9	124.2	132.85	132.95	133.3	133.7
124.6	125.5	125.7	125.9	133.75	134.35	134.7	
126.5	126.8	127.05	127.3				
127.2	127.5	127.7	127.8				
128.7							

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.40	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	128.4	133.1	134.25	134.85	135.7	

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.2	125.1	125.3	125.6	133.5	133.65	133.9	134.65
125.8	126.0	127.6	128.1	134.75			
132.1	132.6	133.5					

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.5	133.15	133.55	133.65	133.85
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
134.3	135.0	135.4					

SAN JUAN

VHF (Low)	VHF (High)			
	119.9	120.3	121.5	125.0

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 1 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed. Four designated part-time FSS's transmit and receive on only 123.6 and 121.5 (emergency). These are identified in the tabulation by √ symbol preceding the name.

ALABAMA

Location and Identifier			Area Code	Telephone
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595–6151▬
		WB	(205)	595–2101★
Dothan DHN	DF	FSS	(205)	794–6683
Huntsville HSV		FSS	(205)	536–1254
		WB	(205)	881–2761◆
Mobile MOB (Bates)		FSS	(205)	342–1177
		WB	(205)	342–2762◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269–4368
		WB	(205)	263–0621◆
Muscle Shoals MSL	DF	FSS	(205)	383–6541
		WB	(205)	383–6657◆
Tuscaloosa TCL		FSS	(205)	758–3628

ARIZONA

Location and Identifier			Area Code	Telephone
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4–5353
Flagstaff		WB	(602)	774–1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261–4295▬
		WB	(602)	261–3868★
Prescott PRC	DF	FSS	(602)	HI 5–2160
Tucson TUS	DF	FSS	(602)	792–6359▬
Winslow		WB	(602)	289–3592
Yuma YUM		FSS	(602)	725–2601▬

ARKANSAS

Location and Identifier			Area Code	Telephone
El Dorado ELD (Goodwin)		FSS	(501)	UN 3–9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2–8277

ARKANSAS (Con't)

Location and Identifier			Area Code	Telephone
Ft. Smith FSM		FSS	(501)	MI 6–7868/69
		WB	(501)	646–5731
Harrison HRO		FSS	(501)	EM 5–3433
Little Rock		WB	(501)	374–1546◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5–0652
Texarkana TXK		FSS	(501)	774–6221
Walnut Ridge ARG		FSS	(501)	TU 6–6671

CALIFORNIA

Location and Identifier			Area Code	Telephone
Arcata ACV	DF	FSS	(707)	TE 9–2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399–1787▬
Bishop		WB	(714)	873–3213 (0545–1915)
Blue Canyon		WB	Emigrant Gap	2721 (0545–1415)
Blythe BLH	DF	FSS	(714)	948–6638
Burbank				
		WB	(213)	848–6206◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4–2514
Daggett DAG	DF	FSS	(714)	CL4–2223
Eureka		WB	(707)	442–2171◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251–8269▬
Imperial IPL		FSS	(714)	355–1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429–0337◆
Los Angeles LAX (International)		FSS	(213)	SP 6–2727
		WB	(213)	670–2223
Marysville MYV (Yuba Co.)		FSS	(916)	742–1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459–3003
Mt Shasta		WB	(916)	926–2227 (0730–1600)
Needles EED		FSS	(714)	326–3511

CALIFORNIA (Con't.)

Location and Identifier			Area Code	Telephone
Oakland OAK (International)		FSS	(415)	562–7807▬
		WB	(415)	832–5418★
				(Via San Francisco)
Ontario ONT		FSS	(714)	983–2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947–3502
Paso Robles PRB	DF	FSS	(805)	238–2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527–0242▬
Sacramento SAC	DF	FSS	(916)	428–6500▬
Salinas SNS		FSS	(408)	422–4723
San Diego SAN (Lindbergh)		FSS	(714)	296–3181▬
San Francisco		WB	(415)	589–6711★
		WB	(415)	761–2052◆
(So. San Francisco)		WB	(415)	588–3012
Santa Barbara SBA		FSS	(805)	967–2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925–3525
				(0600–2200)
Stockton SCK		FSS	(209)	466–3684▬
Thermal TRM		FSS	(714)	EX 9–5155
Ukiah UKI		FSS	(707)	462–6136

COLORADO

Location and Identifier			Area Code	Telephone
Akron AKO		FSS	(303)	345–2271
Alamosa		WB	(303)	589–2547
				(0400–2000)
Colorado Springs		WB	(303)	632–0535◆
Denver DEN (Stapleton Intl)		FSS	(303)	297–3277▬
		WB	(303)	388–3653★
Eagle EGE		FSS	(303)	328–2125
Grand Junction GJT (Walker Field)		FSS	(303)	242–1801▬
La Junta LHX		FSS	(303)	DU 4–4311
Pueblo PUB (Memorial)		FSS	(303)	948–3301
		WB	(303)	948–3376◆
Trinidad TAD	DF	FSS	(303)	846–2623

CONNECTICUT

Location and Identifier			Area Code	Telephone
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247–2855◆
New Haven		WB	(203)	469–2141◆
				(0630–1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3–5590

DELAWARE

Location and Identifier			Area Code	Telephone
Wilmington		WB	(302)	328–2755◆

DISTRICT OF COLUMBIA

Location and Identifier			Area Code	Telephone
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661–8526◆
Washington National DCA		FSS	(202)	DI 7–4040
		WB	(202)	628–0491▬
		WB	(202)	347–8016★

▬This line answered by FSS or WB. Caller can be switched to either office upon request.

FLORIDA

Location and Identifier			Area Code	Telephone
Apalachicola		WB	(305)	653–3171
Crestview CEW	DF	FSS	(305)	MU 2–2795
Daytona Beach DAB		FSS	(904)	255–4767
		WB	(904)	252–3112
Ft. Myers FMY (Page Field)	DF	FSS	(813)	527–4888★
			(813)	WE 6–2057
				(0600–1400 Apr–Oct)
				(0600–2200 Nov–Mar)
Gainesville GNV		FSS	(904)	376–8521
Jacksonville JAX (Imeson)		FSS	(904)	355–3601▬
		WB	(904)	353–8605★
Key West EYW (International)		FSS	(305)	CY 6–2042
		WB	(305)	CY 6–2011
Lakeland		WB	(813)	682–4221
				(0600–2400 Nov 15–Mar 15)
				(0800–1700 Mar 16–Nov 14)
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3–6151
Miami MIA		IFSS	(305)	633–1461▬
		WB	(305)	666–2543★
Orlando ORL (Herndon)		FSS	(305)	841–5101▬
Pensacola PNS		FSS	(305)	HE 8–4390
St Petersburg PIE (Clearwater Intl)		FSS	(813)	527 2148/9
		FSS	(813)	527–4888
Tallahassee TLH	DF	FSS	(305)	224–7101
		WB	(305)	222–3335
Tampa TPA (Tampa International)		WB	(813)	229–1708★
		WB	(813)	877–1677◆
Vero Beach VBR	DF	FSS	(305)	562–2167
			(305)	464–1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832–5697★
		WB	(305)	683–3032◆

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

GEORGIA

Location and Identifier			Area Code	Telephone
Albany ABY	DF	FSS	(912)	435-6201
Alma AMG		FSS	(912)	632-4422 (0600-2200 EST)
Athens		WB	(404)	LI 3-3891◆
Atlanta FTY (Fulton Co.)	DF	FSS	(404)	344-1551
		WB	(404)	767-0244★
		WB	(404)	767-3187◆
Augusta AGS (Bush Fld)		FSS	(404)	798-5164
		WB	(404)	798-6821◆
Brunswick SSI (Malcom McKinnon)		FSS	(912)	638-8641
Columbus		WB	(404)	322-1793◆ (0630-2045)
Macon MCN (Muni)	DF	FSS	(912)	788-5064
		WB	(912)	788-1100◆
Rome		WB	(404)	232-6801 (0700-1300 Mon-Fri) (0700-1100 Sat)
Savannah SAV (Travis)		FSS	(912)	234-2257/8▬
Valdosta VLD		FSS	(912)	CH 4-2361

IDAHO

Location and Identifier			Area Code	Telephone
Boise BOI (Air Terminal)		FSS	(208)	343-2525▬
Burley BYI		FSS	(208)	678-7451
Idaho Falls IDA (Fanning Field)	DF	FSS	(208)	522-9024
Lewiston		WB	(208)	743-3841
Malad City MLD		FSS	(208)	766-2971
Mullan Pass MLP		FSS	(208)	PR 5-2001
Pocatello PIH		FSS	(208)	232-2032
		WB	(208)	233-0143◆

ILLINOIS

Location and Identifier			Area Code	Telephone
Champaign CMI (University of Ill.)		FSS	(217)	822-5211
Chicago		WB	(312)	686-2155◆
		WB	(312)	667-5055★
Joliet JOT	DF	FSS	(815)	725-3144
		FSS	(312)	242-3111
Moline MLI (Quad City)		FSS	(309)	762-2412
		WB	(309)	762-1726
Peoria PIA (Greater Peoria)		FSS	(309)	697-0751
		WB	(309)	637-6422◆
Quincy UIN (Baldwin)		FSS	(217)	885-3251
Rockford RFD (Greater Rockford)		FSS	(815)	965-6758
		WB	(815)	963-5816◆ (0515-2115)
Springfield SPI (Capital)		FSS	(217)	544-9312
		WB	(217)	523-5812◆
Vandalia VLA		FSS	(618)	283-0478

INDIANA

Location and Identifier			Area Code	Telephone
Evansville EVV (Dress Memorial)	DF	FSS	(812)	422-8120
		WB	(812)	424-9613◆
Ft. Wayne FWA (Baer Field)		FSS	(219)	747-3139
		WB	(219)	747-2577◆
Indianapolis IND (Weir-Cook)	DF	FSS	(317)	244-3316▬
		WB	(317)	244-2411★
Layfayette LAF (Purdue University)		FSS	(317)	743-1802/3
South Bend SBN (St. Joseph Co.)	DF	FSS	(219)	CE 3-4433
		WB	(219)	234-3937◆
Terre Haute HUF (Hulman)	DF	FSS	(812)	C-2704

IOWA

Location and Identifier			Area Code	Telephone
Burlington BRL		FSS	(319)	752-4734
Cedar Rapids CID		FSS	(319)	364-3041
Davenport (via Moline Ill.)		WB	(319)	326-2677
Des Moines DSM		FSS	(515)	285-5691
		WB	(515)	284-4493◆
Dubuque		WB	(319)	582-3171 (0545-2105)
Mason City MCW		FSS	(515)	GA 3-7512
Ottumwa OTM		FSS	(515)	MU 2-1846
Sioux City SUX	DF	FSS	(712)	258-1060
		WB	(712)	252-0244 ext 210
Waterloo ALO		FSS	(319)	AD 3-5528
		WB	(319)	234-1602◆

KANSAS

Location and Identifier			Area Code	Telephone
Concordia		WB	(913)	243-3141
Chanute CNU		FSS	(316)	HE 1-4450
Dodge City DDC		FSS	(316)	HU 3-3441
		WB	(316)	483-3311
Emporia EMP		FSS	(316)	DI 2-7475
Garden City GCK (New Municipal)		FSS	(316)	BR 6-2531
Goodland GLD	DF	FSS	(913)	899-7154▬
Hill City HLC		FSS	(913)	674-5642
Hutchinson HUT		FSS	(316)	2-4851
✓Manhattan MHK		FSS	(913)	PR 8-2162 (0700-2100) (Other hrs. Salina) LC PR 6-9751
Russell RSL		FSS	(913)	483-2312
Salina SLN		FSS	(913)	TA 5-5309
Topeka TOP (Phillip Billard)		FSS	(913)	232-5478
		WB	(913)	CE 4-8659◆
Wichita ICT		FSS	(316)	942-2261/2
		WB	(316)	942-3284★
		WB	(316)	943-1063◆

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

KENTUCKY

Location and Identifier			Area Code	Telephone
Bowling Green BWG (Warren County)		FSS	(502)	843-4424
Erlanger (Gtr Cincinnati Arpt)		WB	(513)	381-8195 ◆
Lexington LEX (Blue Grass)		FSS	(606)	254-5143
		WB	(606)	255-1774 ◆
London LOZ		FSS	(606)	864-4410
Louisville LOU (Bowman)		FSS	(502)	451-5344
		WB	(502)	368-2188 ◆
Paducah PUK (Barkley)		FSS	(502)	442-1551

LOUISIANA

Location and Identifier			Area Code	Telephone
Alexandria AEX	DF	FSS	(318)	445-3663 ▬
Baton Rouge BTR (Ryan)		FSS	(504)	EL 5-2763
		WB	(504)	357-9943 ◆
Lafayette LFT		FSS		CE 5-3752
Lake Charles LCH		FSS	(318)	477-1784 ▬
Monroe MLU		FSS	(318)	322-3157
New Orleans MSY		FSS	(504)	943-5535
		WB	(504)	523-4311 ★
		WB	(504)	729-2520 ◆
Shreveport SHV (Greater Shreveport)		FSS	(318)	ME 1-3661
		WB	(318)	631-1141 ◆

MAINE

Location and Identifier			Area Code	Telephone
Augusta AUG (State)	DF	FSS	(207)	622-6491
Caribou		WB	(207)	496-8931
Houlton HUL (Memorial International)	DF	FSS	(207)	532-2475
Millinocket MLT		FSS	(207)	723-8343
Old Town OLD		FSS	(207)	827-2363
		FSS	(207)	827-4010
Portland PWM		FSS	(207)	SP 5-0602
		WB	(207)	775-3071 ◆

MARYLAND

Location and Identifier			Area Code	Telephone
Baltimore		WB	(301)	761-1333 ◆
		WB	(301)	766-0757 ★
Salisbury SBY (Salisbury-Wicomico)		FSS	(301)	742-8719

MASSACHUSETTS

Location and Identifier			Area Code	Telephone
Boston BOS (Logan)		FSS	(617)	223-6448 ▬
		FSS	(617)	223-6447 ▬
		WB	(617)	569-1773 ★
Nantucket ACK	DF	FSS	(617)	228-0815 ▬
		WB	(617)	228-0971
Worcester ORH		FSS	(617)	PL 5-6083
		WB	(617)	798-2124 ◆ (0600-2200)

MICHIGAN

Location and Identifier			Area Code	Telephone
Alpena		WB	(517)	354-8733 ◆
Battle Creek BTL (Kellogg)		FSS	(616)	962-7878
Detroit DET (City)	DF	FSS	(313)	372-3737
		WB	(313)	274-5310 ★
		WB	(313)	278-7340 ◆
Detroit (Willow Run)		WB	(313)	482-5001 ◆ (0600-2200)
Flint FNT (Bishop)		FSS	(313)	CE 3-6250
		WB	(313)	CE 4-3987 ◆
Grand Rapids GRR (Kent County)		FSS	(616)	949-4090
		WB	(616)	949-4251 ◆
Houghton CMX (Houghton County)		FSS	(906)	482-0380
Houghton Lake (Roscommon County)		WB	(517)	366-5392
Jackson JXN (Reynolds Mun.)		FSS	(517)	ST 4-9640
Lansing LAN (Capital City)		FSS	(517)	482-9237
		WB	(517)	489-4603 ◆
Marquette MQT		FSS	(906)	GR 5-4197
		WB	(906)	226-8642 ◆ (0500-2100)
Muskegon MKG (Muskegon County)		FSS	(616)	798-1222
		WB	(616)	798-3048
Pellston PLN (Emmet County)		FSS	(616)	LE 9-8401
Saginaw MBS (Tri City)	DF	FSS	(517)	OX 5-6621
Saulte Ste Marie SSM		FSS	(906)	632-8271
		WB	(906)	632-9461
Traverse City TVC		FSS	(616)	947-5056
Ypsilanti		WB	(313)	482-5001 (0600-2200)

MINNESOTA

Location and Identifier			Area Code	Telephone
Alexandria AXN		FSS	(612)	763-3710
Duluth		WB	(218)	722-7982 ◆
Hibbing HIB (Chisholm-Hibbing)	DF	FSS	(218)	262-1820
International Falls		WB	(218)	285-5151
Minneapolis MSP St. Paul Intl		FSS	(612)	PA 9-9386
(Wold-Chamberlain)	DF	FSS	(612)	PA 9-1957
		WB	(612)	PA 9-4429 ◆
		WB	(612)	729-9339 ★
Redwood Falls RWF		FSS	(507)	637-8530
Rochester RST		FSS	(507)	289-1579 ▬
St. Cloud		WB	(612)	251-3213 (0400-2200)
St. Paul (See: Minneapolis)				

MISSISSIPPI

Location and Identifier			Area Code	Telephone
Greenwood GRW		FSS	(601)	GL 3-2631
Jackson JAN (Thompson Field)		FSS	(601)	939-5212
		WB	(601)	939-5881 ◆

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

MISSISSIPPI (Con't.)

Location and Identifier		Area Code	Telephone
McComb MCB (Pike County)	FSS	(601)	684-7070
Meridian MEI (Key Field)	FSS	(601)	482-1243
	WB	(601)	483-3725◆
Vicksburg	WB	(601)	636-1193 (0630-1530 Mon-Fri) (0630-1130 Sat, Holidays) (clsd Sunday)

MISSOURI

Location and Identifier		Area Code	Telephone
Cape Girardeau GGI	FSS	(314)	ED 4-2803
Columbia CBI	FSS	(314)	449-1136/7
	WB	(314)	443-4332
Joplin JLN	FSS	(417)	MA 3-6868
Kansas City MKC	FSS	(816)	GR 1-5484▬
	WB	(816)	471-2131★
Kirksville IRK	FSS	(816)	MO 5-4132
St. Joseph STJ (Rosecrans Memorial)	FSS	(816)	BR 9-2394
St. Louis STL (Lambert)	FSS	(314)	PE 1-0900
	WB	(314)	731-3001◆
	WB	(314)	PE 1-3004★
	WB	(314)	848-3303★ (Hazlewood)
Springfield SGF DF	FSS	(417)	862-3588▬
Vichy VIH (Rolla National)	FSS	(314)	AX 9-3677

MONTANA

Location and Identifier		Area Code	Telephone
Billings BIL (Logan Field) DF	FSS	(406)	259-4545▬
Bozeman BZN (Gallatin Field)	FSS	(406)	586-6520
Butte BTM (Silver Bow)	FSS	(406)	723-3004
Cut Bank CTB	FSS	(406)	938-4522
Dillon DLN	FSS	(406)	683-5651
Glasgow Intl	WB	(406)	228-8395 (0300-2400)
Great Falls GTF (International)	FSS	(406)	452-6495
	WB	(406)	453-3512◆
Havre	WB	(406)	265-6424 (0430-1315)
Helena HLN	FSS	(406)	442-9902
	WB	(406)	442-8260
Kalispell	WB	(406)	756-4829
Lewistown LWT	FSS	(406)	538-3639
Livingston LVM (Mission Field)	FSS	(406)	222-2411
Miles City MLS DF	FSS	(406)	232-1503
Missoula MSO (Missoula City)	FSS	(406)	542-2230
	WB	(406)	543-7996◆

NEBRASKA

Location and Identifier		Area Code	Telephone
Chadron CDR	FSS	(308)	HE 2-3153
Grand Island GRI	FSS	(308)	382-5196
	WB	(308)	384-1907
Imperial IML	FSS	(308)	TU 2-4887
Lincoln LNK (Mun/AFB)	FSS	(402)	477-3929▬
Norfolk	WB	(402)	371-3386 (0530-2130)
North Plate LBF (Lee Bird)	FSS	(308)	LE 2-4034▬
Omaha OMA (Eppley)	FSS	(402)	341-6178▬
	WB	(402)	342-3603★
Scottsbluff BFF	FSS	(308)	635-2615
	WB	(308)	632-6822
Sidney SNY	FSS	(308)	254-3130
Valentine	WB	(402)	376-3442

NEVADA

Location and Identifier		Area Code	Telephone
Elko EKO	FSS	(702)	738-6506▬
Ely ELY (Yelland Filed)	FSS	(702)	289-2045
	WB	(702)	289-2403
Las Vegas LAS (McCarran)	FSS	(702)	736-1573/4▬
Lovelock LOL (Derby Field) DF	FSS	(702)	273-2448
Reno RNO	FSS	(702)	784-5414
	WB	(702)	784-5402◆
Tonopah TPH (Nye County)	FSS	(702)	482-6421
Winnemucca	WB	(702)	623-2203

NEW HAMPSHIRE

Location and Identifier		Area Code	Telephone
Concord CON	FSS	(603)	224-7474▬
Lebanon LEB (Regional)	FSS	(603)	298-8360

NEW JERSEY

Location and Identifier		Area Code	Telephone
Atlantic City	WB	(609)	641-4327◆
Millville MIV	FSS	(609)	825-1173
Newark	WB	(201)	624-8118 624-7272★ (Via New York)
Teterboro TEB	FSS	(201)	288-9092

NEW MEXICO

Location and Identifier		Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)	FSS	(505)	243-7831▬
	WB	(505)	242-2661★
Carlsbad CNM	FSS	(505)	TU 5-2042
Clayton	WB	(505)	374-9511 (0430-1130 Mon-Fri) (0430-0930 Sat)

NEW MEXICO (Con't.)

Location and Identifier			Area Code	Telepone
Deming DMN		FSS	(505)	546–2726
Farmington FMN	DF	FSS	(505)	325–9271
Grants GNT		FSS	(505)	AT 7–3011
Hobbs HOB (Lea County)		FSS	(505)	EX 3–3222
Las Vegas LVS		FSS	(505)	GA 5–7411
Raton		WB	(505)	445–3891
				(0545–1225)
Roswell ROW		FSS	(505)	622–6780▬
Santa Fe SAF		FSS	(505)	YU 3–6581
Silver City		WB	(505)	538–9023
				(0530–2000 Mon–Fri)
Truth or Consequences TCS	DF	FSS	(505)	894–3277
Tucumcari TCC	DF	FSS	(505)	461–2900
Zuni ZUN		FSS	(505)	782–3770

NEW YORK

Location and Identifier			Area Code	Telepone
Albany ALB (Albany County)		FSS	(518)	869–9225
		WB	(518)	UN 9–9173◆
Binghamton BGM (Broome County)		FSS	(607)	RA 9–6145
		WB	(607)	797–0784◆
Buffalo BUF (Greater Buffalo)		FSS	(716)	632–6083▬
		WB	(716)	632–5042★
Elmira ELM (Chemung County)		FSS	(607)	RE 9–2471
Glens Falls GFL (Warren County)		FSS	(518)	RX 3–2593
Islip ISP · (Long Island MacArthur)	DF	FSS	(516)	JU 8—1061
(New York)		FSS	(914)	723–4330
		FSS	(212)	995–8657
Massena MSS	DF	FSS	(315)	RO 9–2033
New York JFK (John F. Kennedy Intl)		IFSS	(212)	995–8659
		WB	(212)	656–7474★
New York (John F. Kennedy Intl and LaGuardia)		WB	(212)	995–9151◆
Poughkeepsie POU (DutchessCounty)		FSS	(914)	462–3400
Rochester ROC (Monroe County)		FSS	(716)	BE 5–5625
		WB	(716)	FA 8–7391◆
Syracuse SYR (Hancock)		FSS	(315)	GL 4–2479
		WB	(315)	454–1214◆
Utica UCA (Oneida)		FSS	(315)	RE 6–9023
Watertown ART		FSS	(315)	NE 9–3321

NORTH CAROLINA

Location and Identifier			Area Code	Telepone
Asheville AVL		FSS	(704)	684–4401
		WB	(704)	684–6906◆
Cape Hatteras		WB	(919)	995–2321
Charlotte		WB	(704)	399–6000◆
Durham		WB	(919)	596–2326
Elizabeth City ECG (Coast Guard Air Station)		FSS	(919)	338–3808
Fayetteville FAY (Grannis Field)		FSS	(919)	483–7904
Greensboro		WB	(919)	299–9499◆
Hickory HKY		FSS	(704)	DA 7–8281

NORTH CAROLINA (Con't.)

Location and Identifier			Area Code	Telephone
High Point		WB	(919)	883–1927
		(Answered in Greensboro)		
New Bern EWN (Simmons-Nott)		FSS	(919)	ME 7–2080
Raleigh-Durham RDN		FSS	(919)	787–4289
		WB	(919)	787–4092◆
				596–2446
				(Durham Exchange)
				275–6341
				(Greensboro Exchange)
Rocky Mount RMT		FSS	(919)	442–7171
Wilmington ILM (New Hanover County)		FSS	(919)	762–7567
		WB	(919)	762–3240
Winston-Salem		WB	(919)	725–1731
		WB	(919)	724–2208◆

NORTH DAKOTA

Location and Identifier			Area Code	Telephone
Bismarck BIS		FSS	(701)	CA 3–8790
		WB	(701)	223–0920◆
Dickinson DIK		FSS	(701)	225–2989
		FSS	(701)	AD 5–8894
Fargo		WB	(701)	232–1584◆
Grand Forks GFK (International)	DF	FSS	(701)	772–7201
Jamestown JMS		FSS	(701)	252–4350
Minot MOT (International)		FSS	(701)	833–8112
Williston		WB	(701)	572–3198◆
				(0445–2045)

OHIO

Location and Identifier			Area Code	Telephone
Akron ACO		FSS	(216)	ST 4–1246/7
		WB	(216)	896–2246◆
Canton		WB	(216)	499–7933◆
Cincinnati CVG (Lunken)		FSS	(513)	321–1434
		WB	(513)	381–2300★
		WB	(513)	381–6706◆
(Greater Cincinnati)		WB	(513)	684–2129◆
		WB	(606)	283–3696◆
Cleveland CLE (Hopkins)		FSS	(216)	267–3700▬
		WB	(216)	267–3410★
Columbus CMH		FSS	(614)	237–8478▬
Dayton DAY		FSS	(513)	898–4639
		WB	(513)	898–4620◆
				(Vandalia Exchange)
Findlay FDY		FSS	(419)	GA 2–3237
Mansfield MFD		FSS	(419)	524–5323
		WB	(419)	522–7070
				(0600–1800)
Toledo TOL (Express)		FSS	(419)	242–4171
		WB	(419)	385–4921◆
Youngstown YNG		FSS	(216)	539–5121
		FSS	(216)	856–4806
		WB	(216)	545–2447◆
Zanesville ZZV		FSS	(614)	452–8611

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

OKLAHOMA

Location and Identifier		Area Code	Telephone
Ardmore ADM	FSS	(405)	CA 3–6772
	FSS	(405)	DU 9–5441
Gage GAG DF	FSS	(405)	923–2601
Hobart HBR	FSS	(405)	GE 6–4234
McAlester MLC DF	FSS	(918)	GA 3–4091
Oklahoma City OKC (Wiley Post)	FSS	(405)	SU 9–7452
	WB	(405)	685–4433★
	WB	(405)	685–6350◆
(Answered personally after PATWAS message.)			
Ponca City PNC	FSS	(405)	RO 5–5485
Tulsa TUL	FSS	(918)	TE 8–3316▬
	WB	(918)	835–2364★

OREGON

Location and Identifier		Area Code	Telephone
Astoria	WB	(503)	861–2722
Baker BKE	FSS	(503)	523–2961
Eugene EUG (Mahlon-Sweet)	FSS	(503)	343–7738
	WB	(503)	344–0141◆
Klamath Falls LMT (Kingsley Field)	FSS	(503)	882–4641
	WB	(503)	882–5060 (0800–1600)
Meacham	WB	(503)	Meacham 2 (0700–1500)
Medford MFR DF	FSS	(503)	779–3241
	WB	(503)	773–1525◆
North Bend OTH	FSS	(503)	756–4916
Pendleton PDT	FSS	(503)	276–1761
	WB	(503)	276–1852
Portland PDX (International)	FSS	(503)	AT 2–7293▬
	WB	(503)	282–2285★
Redmond RDM (Roberts Field) DF	FSS	(503)	548–2522
Salem	WB	(503)	363–6151
The Dalles DLS	FSS	(509)	PO 7–1187

PENNSYLVANIA

Location and Identifier		Area Code	Telephone
Allentown ABE (Bethlehem-Easton)	FSS	(215)	264–4539
	WB	(215)	264–2241
Altoona AOO (Blair)	FSS	(814)	793–3113
Bradford BFD (Bradford-McKean)	FSS	(814)	362–8860
DuBois DUJ	FSS	(814)	328–2231
Erie ERI (Port Erie)	FSS	(814)	833–1345
	WB	(814)	833–1991◆
Harrisburg HAR (Harrisburg-York State)	FSS	(717)	233–5987
	WB	(717)	233–7315◆

PENNSYLVANIA (Con't)

Location and Identifier		Area Code	Telephone
Philadelphia PNE (N. Philadelphia) DF	FSS	(215)	OR 3–8020
	WB	(215)	726–7511◆
	WB	(215)	726–3503★ (0600–2300)
Philipsburg PSB (Mid-State) DF	FSS	(814)	342–0830
Pittsburgh AGC (Allegheny)	FSS	(412)	462–3707
	WB	(412)	462–5585★
	WB	(412)	462–5586★
Pittsburgh (Greater Pittsburgh)	WB	(412)	771–2855◆
Reading (General Spaatz Fld)	WB	(215)	376–4103◆
(0800–0900 Sun, 0700–noon Sat) (0700–1630 Mon–Fri)			
Scranton	WB	(717)	457–5650◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)	FSS	(717)	457–9600
	WB	(717)	457–5650◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)	FSS	(717)	368–8547
	WB	(717)	368–1866◆

RHODE ISLAND

Location and Identifier		Area Code	Telephone
Providence PVD (Green)	FSS	(401)	RE 7–5300
	WB	(401)	737–0051◆

SOUTH CAROLINA

Location and Identifier		Area Code	Telephone
Anderson AND	FSS	(803)	225–7501
	FSS	(803)	225–5031◆
Charleston CHS DF	FSS	(803)	747–5293▬
	WB	(803)	747–5778★
Columbia	WB	(803)	794–4054◆
✓Crescent Beach CRE (Myrtle Beach)	FSS	(803)	448–7187 (0800–2000) (Other hrs Florence)
Florence FLO DF	FSS	(803)	662–8197
Greer GSP (Greenville) DF	FSS	(803)	Greenville 239–3738▬ Spartanburg 585–5470

SOUTH DAKOTA

Location and Identifier		Area Code	Telephone
Aberdeen ABR	FSS	(605)	225–5264▬
Huron HON (W. W. Howes)	FSS	(605)	352–3806▬
Pierre PIR	FSS	(605)	224–5894
Rapid City RAP DF	FSS	(605)	FI 2–2280
	WB	(605)	342–1160 (0200–2300 daily)

Location and Identifier		Area Code	Telephone
SOUTH DAKOTA (Con't)			
Sioux Falls FSD (Joe Foss Fld)	FSS	(605)	ED 8-4841
	WB	(605)	338-1441◆
Watertown ATY	FSS	(605)	TU 6-4581
TENNESSEE			
Blountville	WB	(615)	323-8752◆
Chattanooga	WB	(615)	892-3747◆
Crossville CSV (Crossville-Cumberland) DF	FSS	(615)	484-6711
Dyersburg DYR	FSS	(901)	285-4842
			(0600-2200)
Jackson JKS (McKellar)	FSS	(901)	427-0611
Knoxville TYS (McGhee-Tyson)	FSS	(615)	577-0795
	WB	(615)	577-4805◆
(from Maryville)		(615)	982-3682
Maryville (See Knoxville)			
Memphis MEM DF	FSS	(901)	398-9260/9
	WB	(901)	398-2347★
Nashville BNA (Metropolitan)	FSS	(615)	254-6552/3
	WB	(615)	255-8732★
	WB	(615)	256-4468◆
Tri City TRI	FSS	(615)	323-7242
TEXAS			
Abilene ABI	FSS	(915)	OR 4-6915▬
Alice ALI DF	FSS	(512)	MO 4-4291
Amarillo AMA (Air Terminal)	FSS	(806)	349-1608▬
Austin AUS (Robert Mueller)	FSS	(512)	GR 8—6695▬
Beaumont BPT (Jefferson County)	FSS	(713)	722-0288
	WB	(713)	722-7011◆
Brownsville BRO (Rio Grande Valley International)	FSS	(512)	LI 6-6421
	WB	(512)	542-8231◆
Childress CDS	FSS	(817)	WE 7-3892
College Station CLL (Easterwood)	FSS	(713)	VI 6-8784/5
Corpus Christi	WB	(512)	883-3008◆
Cotulla COT	FSS	(512)	TR 9-2417
Dalhart DHT	FSS	(806)	CH 9-2006
Dallas Love Field DAL	FSS	(214)	FL 2-8491▬
	WB	(214)	FL 7-4343★
Del Rio	WB	(512)	775-2115
El Paso ELP (International)	FSS	(915)	778-6448▬
	WB	(915)	778-4487★

Location and Identifier		Area Code	Telephone
TEXAS (Con't.)			
Fort Worth FTW (Meacham)	FSS	(817)	MA 4-8471
	WB	(817)	334-3362★
	WB	(817)	334-3340◆
Galveston GLS (Scholes)	FSS	(713)	SH 4-3255
	WB	(713)	763-5670
Gregg County GGG (Longview)	FSS	(214)	MI 3-2612
Houston HOU (International)	FSS	(713)	MI 5-6693▬
	WB	(713)	644-1507★
✓Junction JCT (Kimble Co.)	FSS	(915)	HI 6-3214
			(0600-1800)
			(Other hrs San Antonio)
Lubbock LBB	FSS	(806)	PO 2-5802
	WB	(806)	762-2380◆
Lufkin LFK (Angelena County) DF	FSS	(713)	NE 4-3544
McAllen MFE (Miller Field)	FSS	(512)	MU 2-2878/9
Midland MAF (Air Terminal) DF	FSS	(915)	563-2611▬
Mineral Wells MWL	FSS	(817)	FA 5-5922
Palacios PSX	FSS	(713)	824-2218
Port Arthur	WB	(713)	722-7011◆
San Angelo SJT (Mathis)	FSS	(915)	655-5638
	WB	(915)	655-9780◆
San Antonio SAN (International)	FSS	(512)	TA6-9575▬
Tyler TYR (Pounds)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	445-1276◆
Waco ACT	FSS	(817)	PL 2-4811
	WB	(817)	754-1582◆
Wichita Falls SPS (Sheppard AFB/Wichita Falls Air Trml) DF	FSS	(817)	322-1302▬
Wink INK DF	FSS	(915)	LA 7-3351
UTAH			
Bryce Canyon BCE	FSS	(801)	834-5311
Cedar City CDC DF	FSS	(801)	586-9131
✓Delta DTA	FSS	(801)	4741
			(0600-1800)
			(Other hrs Salt Lake City)
Milford	WB	(801)	387-2361
			(0900-1700)
Salt Lake City SLC (Municipal No. 1) DF	FSS	(801)	524-5183▬
	FSS	(801)	364-5571★
Wendover	WB	(801)	665-2382
			(0430-2015)
VERMONT			
Burlington	WB	(802)	862-2475
			(0600-2300)
Montpelier MPV (Barre-Montpelier) DF	FSS	(802)	223-2376
	FSS	(802)	878-3393
			(from Burlington)

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

VIRGINIA

Location and Identifier		Area Code	Telephone
Blackstone BKT	FSS	(703)	292-3826 (0600-2200)
Bristol	WB	(615)	323-8242◆
Chantilly (Dulles)	WB	(703)	661-8526◆
Charlottesville CHO (Charlottesville/ Albermarle)	FSS	(703)	973-3909
Danville DAN	FSS	(703)	SW 3-1163
Lynchburg (Muni-Preston Glenn	WB	(703)	239-0345◆ (0600-1930)
Newport News PHF (Patrick Henry)	FSS	(703)	877-0200
Norfolk	FSS	(703)	627-7084▬
Richmond RIC (Byrd Flying Field)	FSS	(703)	737-5249▬
Roanoke ROA (Woodrum)	FSS	(703)	362-1668▬

WASHINGTON

Location and Identifier		Area Code	Telephone
Bellingham BLI DF	FSS	(206)	734-6400
Ephrata EPH	FSS	(509)	SK 4-2361
Hoquiam HQM (Bowerman)	FSS	(206)	GE 9-3432
Olympia	WB	(206)	357-8386
Seattle SEA (Boeing)	FSS	(206)	RO 2-4000
	WB	(206)	682-3655★
Spokane SFF (Felts) DF	FSS	(509)	KE 5-2906
	WB	(509)	624-5674◆
Toledo TDO (Toledo-Winlock)	FSS	(206)	864-2371 (0500-2100)
Walla Walla ALW (City-County)	FSS	(509)	JA 9-1413
Wenatchee EAT (Pangborn)	FSS	(509)	TU 4-5654
Yakima YKM	FSS	(509)	GL 3-9862
	WB	(509)	GL 7-4371

WEST VIRGINIA

Location and Identifier		Area Code	Telephone
Beckley	WB	(304)	252-3171◆
Bluefield BLF (Mercer County)	FSS	(304)	325-6521
Charleston CRW (Kanawha)	FSS	(304)	342-1371▬
Elkins EKN (Randolph)	FSS	(304)	636-0810
	WB	(304)	636-1246◆
Huntington HTS (Tri-State)	FSS	(304)	453-3951▬
Martinsburg MRB	FSS	(304)	AM 3-9353

WEST VIRGINIA (Con't.)

Location and Identifier		Area Codes	Telephone
Morgantown MGW DF	FSS	(304)	292-3632
Parkersburg PKB (Wood County)	FSS	(304)	485-6421
	WB	(304)	422-3661 (0700-1400 Mon-Fri) (0700-1200 Sat)
Wheeling HLG (Ohio County)	FSS	(304)	CR 7-1252

WISCONSIN

Location and Identifier		Area Codes	Telephone
Eau Clare EAU	FSS	(715)	835-9642
Green Bay GRB (Austin Straubel) DF	FSS	(414)	494-7417▬
La Crosse LSE	FSS	(608)	785-1225▬
Lone Rock LNR (Tri-County)	FSS	(608)	583-2661
Madison MSN (Traux)	FSS	(608)	244-1033
	WB	(608)	249-6644◆
Milwaukee MKE (General Mitchell)	FSS	(414)	481-4414
	FSS	(414)	744-5860▬
	WB	(414)	744-7810★
Wausau AUW	FSS	(715)	845-7396

WYOMING

Location and Identifier		Area Codes	Telephone
Casper CPR (Air Terminal) DF	FSS	(307)	235-1555▬
Cheyenne CYS	FSS	(307)	638-9711
	WB	(307)	638-3642◆
Lander	WB	(307)	332-2718
Laramie LAR (General Brees Field)	FSS	(307)	745-4010
Rawlins RWL	FSS	(307)	324-3241
Rock Springs RKS DF	FSS	(307)	362-2121
Sheridan SHR (Sheridan County)	FSS	(307)	674-7426▬
Worland WRL DF	FSS	(307)	347-4122

PUERTO RICO

Location and Identifier		Area Codes	Telephone
San Juan SJU (Puerto Rico Intl)	IFSS		791-1780
	WB		791-0320

VIRGIN ISLANDS

Location and Identifier		Area Codes	Telephone
St. Croix STT (Christiansted, Alexander Hamilton)	FSS		773-1425

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Indicate Appropriate Part. Date ______________________________

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3–A, Notices to Airmen

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AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE 1966-67

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Part

Effective Date	Part 1	Part 2	Part 3	Part 3A
September 1				August 22
September 15			August 29	August 29
September 29				September 19
October 13			September 26	September 26
October 27				October 17
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12
January 5			December 16	December 16
January 19				January 9
February 2			January 16	January 16
February 15	January 20			
February 16				February 6
March 2			February 10	February 10
March 16				March 6
March 30			March 13	March 13
April 13				April 3
April 27			April 10	April 10
May 11				May 1

Editorial Staff Telephone Number, Area Code 202—WO 2-4063.

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930–1730 Sun. Up to 12,500′.

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Gadsden:1000–1700 Weekends. Up to 12,500′.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500′.

ARIZONA

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800–1700. Up to 12,500′.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000′.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Marked Tree: 2 mi S. Weekends SR–SS. Up to 12,500′.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200–SS. Up to 12,500′.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500′.

California City Arpt: Weekends and holidays. Up to 15,000′ MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000′ MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800′–15,000′, opening at absolute alts of 2000′–2500′. Center of drop zone lctd at 36°38′N, 121°46′W in Restricted Area R–2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000′.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000′.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500′ MSL.

Imperial Beach: Weekends. 0800–1200. Up to 1500′.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld. 7 days a wk. SR–SS.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Los Banos Arpt: 3.5 mi SE; edge of V–113. Suns SR–SS. Up to 10,000′.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000′ MSL.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000′.

Sonoma Valley: Weekends (occansionally during the wk.) 0800–SS. Up to 15,000′.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

● **Winters-Davis, Yolo Co. Intl Arpt:** Weekends and occasionally week days. SR–SS. Up to 12,500′.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Daylgt hrs. Up to 8,000′.

Boulder: 3 mi NE of arpt. Wk-ends and holidays. 0800–SS. Up to 13,000′ AGL.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 18,000′ MSL.

Denver, C&S Arpt: 2.5 mi SE of Cherry Creek Dam. 0800–SS weekends and holidays. Up to 13,200′ MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays. Dalgt hrs. Up to 13,000′.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Loveland: 5 mi NE. Wk-ends and holidays. Up to 18,000′ MSL.

CONNECTICUT

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200–SS. Up to 12,500′.

Harwinton: 0800–dusk. Weekends. Up to 7200′.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Clewiston, Airglades Arpt: Up to 15,000′. Daily SR-SS. Occasional ngts.

Deland Mun Arpt: Up to 7,000′ daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500′.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

Homestead AFB: Occasionally. Up to 1,000′ MSL.

Howey Arpt: Weekends. Up to 10,000′.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800–1600. Up to 15,000′. (2) 2 mi NW of Herlong Fld. Weekends. 0800–1600. Up to 7,500′.

Kissimmee Arpt: Daily and weekends. Up to 12,000′.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500′.

Ovita Arpt: Wk-ends. 0700–SS. Up to 12,000′ MSL.

Palatka: Suns. 0800–1600. Up to 7500′.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.

Umatilla Arpt: 32 NM 325° rad Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.

Zephyrhills Ahpt: Sundays, occasionally weekdays. Up to 12,500′.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500′ AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500′.

Cohutta: 10 mi N Dalton. Weekends. 1200–1900. Up to 13,500′.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500′.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

Fitzgerald: Daily, mostly on Sats and Suns. 0900–1700. Up to 12,500′.

Fort Benning: Daily. 0600–2000. Up to 18,000′.

Ft. Steward: Daily, Sats and Suns. Up to 15,000′.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935′ MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000′.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

Waycross: Weekends. 1000–1600. Up to 12,500′.

IDAHO

Boise, Floating Feather Arpt: Wk-days. Hvy on wk-ends 0700–1900. Up to 12,000′ MSL.

Weiser: 1500Z–SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.

Antioch: 4 mi E. Wk-ends and holidays.

Belleville, Flying Dutchman: 1 mi SW city. Wk-ends SR–SS. Up to 12,500′ MSL.

Chicago, Hammond Arpt: Weekends. Up to 12,500′.

Clinton: ½ mi E. Weekends. 1200–SS. Up to 10,000′.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

Hebron Arpt: Wed, wk-ends, and holidays. Up to 7500′ MSL.

Hillsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

Pekin: 3 mi S. Weekends. 1200–SS. Up to 15,000′.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500′.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500′.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500′.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.

Des Moines: 3 mi radius of Camp Dodge. SR–SS wk-ends. 1500–SS wk-days. Up to 12,500′ MSL.

Mechanicsville: 5S, 2 mi radius. Weekends and occasionally wk days SR–SS. Up to 15,000′.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

Northwood: Weekends. 0900–SS. Up to 13,000′.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500′.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000′.

KANSAS

Concordia: 3 mi SE. SR–SS wk-ends. Up to 10,500′ MSL.

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000′.

Fort Leavenworth Military Reservation: Weekends and holidays. Occasionally weekdays. Up to 12,500′.

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500′.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000′. Occasionally ngts.

Manhattan: 2 mi SE of Tuttle Creek Dam. SR–SS wk-ends and holidays. Up to 12,500′ MSL.

Oxford: Weekends. 1300–1900. Up to 13,000′.

Topeka, Skyranch Arpt: SR–SS wk-ends and holidays, occasional wkdays. Up to 12,500′ MSL.

KENTUCKY

Ashland, Boyd Co.: Wed and wkends.

Fort Knox: 3 mi SW of Godman AAF weekends and holidays, 1300–1700. Up to 10,000′.

LOUISIANA

Abbeville: Weekends. 0900–SS. Up to 17,000′.

● **Alexandria, (England AFB):** 0700–2300 weekedays; 0900–1800 weekends.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500′.

Bodcaw: SR–SS wk-ends. Up to 13,000′ MSL.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900–SS. Up to 12,000′.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.

Fort Polk, Polk AAF: 2 nmi radius.

Hammond: SR–SS seven days a wk. Up to 15,000′.

● **Houma—Terrebonne Arpt:** Weekends SR–SS. Up to 15,000.

Mansfield Arpt: SR–SS wk-ends. Up to 13,000′ MSL.

Pollock Arpt: SR–SS wk-ends; 1200–SS wkdays. Up to 13,000′ MSL.

Youngsville: Weekends. 0900–SS. Up to 13,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland Mun: Up to 12,000′.

Edgewood: 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Levett Arpt: Weekends. Up to 3000′.

Frederick Mun: Glider activities wkends and holidays.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 2200. Up to 20,000′.

Patuxent River NAS: On V-213. 2200–2400 weekdays; 1500–2100Z Sat, Sun and holidays. Up to 12,500′.

Stevensville, Carroll's Arpt: Weekends. Up to 12,500′.

MASSACHUSETTS

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Day time only. Up to 15,000′.

Orange Munl Arpt: Day time only. Up to 15,000′.

Pepperell Arpt: Day time only. Up to 15,000′.

Tauton Muni Arpt: Day time only. Up to 15,000′.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500′.

E. Tawas, Iosco Arpt: Up to 13,500′.

Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500′.

Gaylord: Weekends. Dawn-Dusk. Up to 12,500′.

Grand Rapids (So. Kent Fld): Weekends. 0900–dusk. Up to 12,000′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Lake City: 6mi E, 1 N. Weekends. SR–SS. Up to 12,500′.

LaSalle: 5 mi S of Custer Arpt. 0900–SS. Up to 12,500′.

Marksfield, Lawton: Sat and Sun. 0900–SS. Up to 15,000′.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Midland: Sat, Sun, Wed. SR–SS. Up to 12,500′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

Nunica: 1 mi SE. Up to 15,000′.

Saginaw Arpt: Weekends. Up to 13,000′.

Tecumseh Arpt: Daily. Up to 17,500′.

Traverse City: Weekends. SR–SS. Up to 12,500′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Monticello, Flynn Arpt: Wk-end. Up to 12,000′ AGL.

Rosemount: 3 mi SE. Up to 2500′.

Stanton, Carleton Arpt: Wed 1600–SS during June; July and Aug wk-ends 0800–SS. Up to 14,500′ AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000′.

Jackson: 10 mi SW. 0900–SS. Weekends. Up to 12,500′.

Louisville: 5 mi S. Weekends. Up to 12,500′.

Lucedale, Farmco Arpt: Weekends and holidays SR–SS. Up to 12,500′ MSL.

Ocean Springs, Gulfpark Arpt: SR–SS Sats, Suns, holidays and occasional wk days. Up to 12,500′ AGL.

MISSOURI

Columbia Muni Arpt: Weekends and holidays. Up to 12,000′ MSL.

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lebmaster Arpt: Weekends and holidays. Up to 11,000′.

Valleroy: Weekends. 1200–1800. Up to 8000′.

Vichy, Rolla Natl Arpt: Daily SR–SS. Up to 12,500′.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800–dusk. Up to 10,000′.

Glendive: Sat and Sun, occasionally wk days.

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Kalispell: Weekdays 1700–dark, weekends SR–SS. Up to 13,000′.

● **Laurel:** Sat, Sun. SR–SS. Up to 16,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500′ MSL.

Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500′.

Silver Springs Arpt: Daily SR–SS. Up to 12,500′ MSL.

NEW HAMPSHIRE

Hollis: 3 mi SW Boire Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600′.

Hooksett: Tues, Sat Sun, and holidays. 0900–2100. Up to 12,500′.

Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900–dusk. Up to 5,200′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500′.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500'.

Lakehurst NAS-West Fld: Up to 12,000'.

Lakewood Arpt: Within 2 mi radius. Up to 12,500'.

Manville, Decker Arpt: ½ mi SW rnwy. Dawn to dusk. Up to 15,000'.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500'.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500'.

NEW MEXICO

Alamogordo Muni Arpt: Fri, Sat, Sun and holidays SR–SS. Up to 12,500' AGL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000'.

Belen: 3½ mi SE. Suns SR–SS. Up to 12,500' AGL.

Roswell Arpt: 8 mi W. Wk-ends 0700–1400. Up to 7,500' MSL.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500'.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500' MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000'.

Gardiner Airfield: 1 mi radius wk-ends and holidays SR–SS. Up to 15,000' MSL.

Greene Arpt: Within 5 mi radius. Daily 1100Z–SS. Up to 12,500'.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500'.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000' MSL.

Randolph Arpt: Daily. Up to 15,000'.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500' MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000'.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500' MSL

Wallkill (Galesville): Every day of wk. 1000–2130. Up to 14,000'.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500'.

Charlotte, Brackenborough Arpt: 5 mi N. Wed and Fri 1500–SS, Sat and Sun 1200–SS. Up to 14,000'.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900–1630. Up to 13,000'.

New River MCAF: On V157 1100–0300 daily from 23,500'.

Oak Grove OLF: Sat, Sun and holidays from 0800-1830. Up to 15,000'.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000'.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12,000'.

Shelby Mun Arpt: Sat and Sun. Up to 12,000'.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500'.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000' MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500'.

OHIO

Ada Arpt: Wk-ends SR–SS. Up to 12,500' AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000'.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500'.

Brunswick Arpt: 1300–0100Z daily. Up to 8,500' MSL.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000'

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000'.

Darbydale: Daily 1000–SS. Up to 12,500' AGL.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500' AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000' AGL.

Galloway, Columbus Arpk: Wkends, holidays dalgt hrs and Wed 1600–SS.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500'.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500'.

Lenox Arpt: Sat and Sun. 0900 2100 EDST. Up to 12,500'.

Lima: Weekends. 1200–SS. Up to 12,500'.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000' MSL.

Oberlin: Daily 1600-dark. Up to 12,500'.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500' AGL.

Piqua Arpt: Up to 12,000'. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500'.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500'.

South Dayton Arpt: Up to 18,000'. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500'.

Valley City: 3.5 mi W. Wed 2200–0100Z. Up to 12,500' AGL.

Van Wert: Weekends 1200–SS. Up to 12,500' AGL.

Waynesville Arpt: Suns. Up to 10,000'.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000'.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600' MSL.

Xenia Arpt: Daily. Up to 20,000'.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000'.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000'.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500' AGL.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500'.

Frederick: Weekend. Dawn-dusk. Up to 10,000'.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500' AGL.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500' AGL.

OREGON

Albany: 1½ mi NE of arpt. Weekends 1000–SS. Up to 13,000' MSL.

Ashland Arpt: Dalgt. wk ends, holidays and evenings. Up to 9,000'.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 1 mi N and 3 mi SE. Periodically June thru Sept. From 2000′ AGL.

Creswell: 2 mi SW. Thurs, Fri, Sat, 1600–2030. Up to 15,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR–SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR–SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

Portland: ½ mi S and 2 mi E of Scholl Arpt, Orchards, Wash.

Portland: 4 mi N Aurora Flight Strip, Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

Coudersport, Cherry Springs Arpt: Up to 10,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

Erie: 12 mi E. Wk-ends and holidays. SR–SS. Up to 12,500′ AGL.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 15,000′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Maytown, Donegal Arpt: 2 mi NE. Weekend SR–SS. Up to 15,000′ MSL.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

New Hanover Arpt: Most activities weekends. Up to 15,000′ MSL.

Quakertown, Upper Bucks Co. Arpt: 7 mi E. Suns 0900–SS. Up to 12,500′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

Darlington Co. Arpt: Thurs, Sat and Sun SR–SS. Up to 15,000′ MSL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR-SS. Up to 12,500′.

Pierre: 4 mi NW arpt. Wk-ends SR–SS. Up to 10,000′ MSL.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

Pierre: 4 mi NW arpt. Wk-ends SR-SS. Up to 10,000′ MSL.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens, McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Comelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Alvarado: 1 mi N of City. Wkdays 1200–SS. Wk-ends SR–SS. Up to 15,000′ AGL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Bonham Arpt: Weekends SR–SS. Up to 12,500′.

Cedar Hill: Weekends SR–SS. Up to 12,500′.

Clear Springs Arpt: Suns and holidays, SR–SS. Up to 14,000′ AGL.

Commerce Arpt: Weekdays only SR–SS. Up to 10,000′.

Dickenson, T & C Drop Zone Arpt: 1 mi radius. Up to 12,500′

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AAF. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampassas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

● **Littlefield Mun:** Suns. SR–SS. Up to 12,500′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

San Antonio, Northeast Arpt: Suns and holidays SR–SS. Up to 12,500′ AGL.

San Marcos Arpt: Sat, Sun, occasional weekdays SR–SS. Up to 12,500′ AGL.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

Green River: 6 mi NNE of arpt. Daily SR–SS. Up to 10,000′ MSL.

Hill AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Forest, New London Arpt: Daily. Up to 11,000′.

Hanover Arpk: 12 nmi N of Richmond VOR on radial 352. Daily and occasionally ngts. Up to 13,000′ MSL.

Hopewell Arpt: Weekends. Up to 9000′.

● **Manassas:** On the Herndon 195 radial 15 mi. Weekends, Wed evenings and holidays. Occasional ngt jumping. Up to 12,500′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000′.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Muni Arpt: Cont. Up to 12,000′.

Target Fld: 2 mi NNE of Manassas. Sat, Sun, and holidays SR–SS. Up to 13,000′ MSL.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

Bellingham Arpt: 6NE. 7days per wk. Up to 12,500′ AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000′ MSL.

Coupeville: 1 mi S. Weekends and holidays, occasional weekday afternoons. Up to 12,500′ AGL.

Issaquah-Seattle Skyport: Daily SR–SS. Up to 24,000′ AGL.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 6 mi N SR to 1 hr after SS. Up to 12,000′ AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500′.

WEST VIRGINIA

● **Morgantown Arpt:** 2 mi SW on radial 230°. Tues., Thurs., Sat and Sun. SR–SS.

WISCONSIN

Antigo Arpt: 2 mi S. Weekends SR–SS. Up to 12,500′ AGL.

● **LaCrosse, Maple Grove Arpt:** Tues and Thur 1700–SS. Sat and Sun 1000–SS. Up to 7200′.

● **Lake Geneva Wal-Co. Farms Arpt:** Tues, Wed, Fri 1800–2030. Up to 7500′. Sat, Sun 1200–2030. Up to 12,500′.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500′ MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500′ AGL.

Oskkosh: 8 mi NW. Weekdays 1700–1900. Weekends 1000–2100. Up to 13,000′ AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000′.

WYOMING

Laramie: 2 mi S. Weekends SR–SS. Up to 20,000′ MSL.

Sheridan Muni Arpt: Weekends and holidays SR–SS. Up to 16,500′ MSL.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston	V2 GDM (L-25)
Kennedy	V91 RVH (L25)
LaGuardia	V91 V487 Stamford (L25)
Newark	V489 Budd Lake (L25)

ALBUQUERQUE

Denver	Aden V19W SAF V83 PUB V19E IOC (L-4, 6)
Kansas City	Aden V19W SAF V19 LVS V190 DHT V234 V280 Farley (L-6)
Los Angeles	GNT V12 EED V208 TNP V264S ONT. (L-4, 3)
Phoenix	GNT V190N SJN V190 Lake. (L-4)

ATLANTA METRO AREA

Birmingham	Chattahoochee V18 ANB (L20, 14)
Charlotte	Conyers V66 FML (L-20)
Cincinnati	Crabapple V97 Dry Ridge (L-20, 22)
Chicago	Crabapple V51 CGT (L-14, 20, 21, 23)
Dallas	Chattahoochee V18 MLU V94 V477E Forney (L20, 14, 18, 17, 13)
Dulles	Conyers V66 FML V454 LVL V155 GVE V39E Brandy (L20-22)
Houston	Chattahoochee V18 MEI V194 MCB V222 LCH V222N Monument (L20, 14, 18)
Kennedy	Conyers V66 FML V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
Jacksonville	Griffin V243 AYS V243W Callahan (L20, 18)
La Guardia	Conyers V66 FML V454 LVL V157 RIC V20 V213 RBV (L-20, 22, 24)
Memphis	Chattahoochee V18 BHM V176N HL1 (L20, 14)
Miami	Brooks V97 ABY V159 V159W CTY V7 LAL V157 Cypress (L20, 18, 19)
Newark	Conyers V66 FML V454 V157 V20 V213 V29 V433 Rocky Hill (L-20, 22, 24)
Orlando	Griffin V243 AYS V157 OCF V159W Clermont (L20, 18, 19)
Pittsburgh	Crabapple V97 TYS V115 PKB V119 HLG (L-20. 22, 24)
Tampa	Brooks V97 ABY V159 V159W CTY V7 Homo V35E Hazel (L20, 18, 19)
Washington	Conyers V66 FML V454 LVL V157 Ironsides (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta	BHM V18S Palmetto (L14, 20)
New Orleans	TCL V18 MEI V455 HBG V455W Madison (L14, 18 17)
Pittsburgh	GAD V115E CHA V115 PKB V119 HLG (L-14, 22, 24)

BOSTON METRO AREA

Albany	V14 Melrose (L-25)
Buffalo	V14 Bellona V31 ROC V142 Grant (L-25)
Cleveland	V14 ALB V72 Hadley V232 Mentor (L-25, L-24)
Kennedy	PUT V475E V16 RVH (L25)

BOSTON METRO AREA—Continued

LaGuardia	Millbury V3 V445 Stamford (L25)
Newark	Millbury V3 V292 Budd Lake (L25, 24)
Philadelphia	Millbury V3 Warrington (L25, 24)
Rochester	V14 Bellona V31 Fishers (L-25)
Washington	PUT V308 North Barch (L25, 24)
Windsor Locks	PUT PUT 295 rad Meadow, (L25)

BUFFALO

Boston	GEE V14 GDM (L-12, L-25)
Cleveland	Langford V464 DKK V14 Mentor (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 QG (L-12, 23)
Kennedy	V252 BGM V270 V34 CMK BDR RVH (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 Liberty (L-12, 25)
Midway	V84 LAN V218 Surf (L-12, 23)
Newark	V252 GEE V147 TOH V226 Budd Lake (L12-25)
O'Hare	V84 OBK (L12, 23)
Philadelphia	V33 PSB V238 ESR (L-12, 24)
Pittsburgh	V115 EWC (L-12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn DCA (L12-24)

CHARLESTON, W. VA.

Cincinnati	V128 California (L22)
Cleveland	V115 PKB V59 V427 V40 Sharon (L22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 HLG (L-22, 24)
Washington	V4S EKN V4 HRN (L22, 24)

CHARLOTTE

Atlanta	CLT V194 OCR (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 RBV (L-20, 22, 24)
Miami	FML V37 ALD V157 Cypress (L20, 18, 19)
Washington	New London V454 LVL V157 Ironsides (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	EON V171 SCJ V243 Kennesaw (L23, 21, 14, 20)
Denver	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	Musky V100 ELX V218 Troy (L23, 12)
Dulles	EON V144 Blue Ridge (L23, 24)
Kennedy	V6 SEG V170 V276 RBV (L23, 24)
Indianapolis	EON V128 (L-23)
La Guardia	V6 V433 Liberty (L-23, 24)
Los Angeles	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	Big Run V173 CAP V9 Kerrville (L-23, 21, 14)
Miami	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 LAL V157 Cypress (L23, 21, 14, 20, 18, 19)
Minneapolis	Malta V218 RST V82 FGT (L23, 11, 10)
Newark	V6 SEG V30 Rocky Hill (L-23, 24)
Philadelphia	V6 PSB V238 ESR (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 EWC (L23, 24)
San Francisco	Malta V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
St. Louis	Big Run V191 V14 Staunton (L23, 21)
Tampa	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 Homo V35E Hazel (L23, 21, 14, 20, 18, 19)
Tulsa	API V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	EON V144 ESL V4 HRN (L23, 24)

From Midway only

Cleveland	Crib V6 SKY V232 Vermillion (L23)
Des Moines	API V8 CVA V233 CID V172 TNU (L23-11)
Kansas City	API V10 Kearney (L-23, 11, 21)
Metro Wayne Co.	Crib V10 Milan (L23)
Omaha	API V8 CVA V233 CID V172 EOL (L23, 11)
Willow Run	Crib V10 Milan (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 Vermillion (L-23)
Des Moines	V172 TNU (L-23, 11)
Kansas City	V84 BDF V10 Kearney (L-23, 11, 21)
Metro Wayne Co	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Omaha	V172 EOL (L23, 11)
Willow Run	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Windsor	V100 V218 Troy (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 OCR (L-21, 22, 20)
Charleston W. Va.	V128S YRK V128 (L22)
Chicago	V97 CGT (L-21, 23)
Detroit (City)	V275 SVM (L21, 23)
Indianapolis	V97 (L-21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 Liberty (L22-24)
Louisville	V47 ABB V51 (L-21)
Metro Wayne Co.	V275 Milan(L21, 23)
Miami	V47 ABB V51 Crabapple V97 ABY V159 V159W CTY V7 LAL V157 Cypress (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 Rocky Hill (L22-24)
Pittsburgh	V128S YRK V44 PKB V119 HLG (L22-24)
St. Louis	V47 ABB V44 Mounds (L21)
Willow Run	V275 Milan (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 GDM (L-23, 24, 12, 25)
Buffalo	V14N Crystal Beach (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 Niles (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	V42E QG V90 (L-23)
Kennedy	ACO V30 SEG V170 V276 RBV (L24)
Indianapolis	CLE V14 (L23)
La Guardia	ACO V30 CIP V6 Amboy V433 Liberty (L-24)
Metro Wayne Co.	V42E V103 Lasalle (L23)
Miami	V443 V133 V35 V185 Dover V157 Cypress (L23 22, 20, 18, 19)
Newark	ACO V30 Rocky Hill (L-24)
Philadelphia	ACO V30 PSB V238 ESR (L-24)
Pittsburgh	ACO V297 EWC (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	ACO V103 IRL V37 Millsboro V92 FRR V4 HRN (L-24)
Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L-23, 24, 22)
Indianapolis	Grindell V210 (L-23)
LaGuardia	APE V12 V106 V6 V433 Liberty (L23, 24)
Pittsburgh	APE V12 HLG (L-23, 24)
St. Louis	V12N V210 Staunton (L23, 21)
Toledo	V38 FDY V47 (L-23)
Washington	APE V144 ESL V4 HRN (L-23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	Lakeside V114 Claude (L-13)
Atlanta	DAL V278 V18S Palmetto (L13, 14, 20)
Dulles	DAL V278 V16 BNA V140 MOL V251 V174 Blue Ridge (L13-14-21-22)
El Paso	Joshua V94 INK V16 RIO (L-13, 4)
Houston	Trinity Fork V477 LOA V477W Fairbanks (L-13, 17)
Los Angeles	Joshua V94 INK V16 SFL V94 GBN V461 BXK V16 ONT (L-13, 4, 3)
Memphis	DAL V278 TXK V16 Walls (L13-L14)
Midway	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
New Orleans	DAL V114 French (L-13, 17)
O'Hare	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
San Antonio	Red Oak V15E ACT V17 AUS V17W Bergheim (L-13, 15)
Tulsa	DAL V15 Gunter PNX MLC V131 OKM Haskell; or DAL V15 OKM Haskell (L-13, 6)
Washington	DAL V278 V16 BNA V140 MOL V16N GVE V16 Ironsides (L-13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 CGT (L-23)
Cleveland	V275 V47W FDY V8 MFD V246 Sharon (L23)
Detroit/City	V275 SVM (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V275 Milan (L23)
Willow Run	V275 Milan (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N Langston (L23-21-6)
Washington	V12 APE V144 ESL V4 HRN (L-23, 24)

DENVER METRO AREA

Chicago	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT (L-8, 11, 23)
Kennedy	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX RBV (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 RBV (L12, 24)

From City and Windsor only

Newark	V221 ERI V170 SEG V30 Rocky Hill (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 ESR (L-12, 24)
Ft. Wayne	SVM V170 Leslie V45 JXN V221 (L-23)
Midway	SVM V170 V84 V7E V116 (L-23)
Milwaukee	SVM V170 PMM V30S Pike (L-12, 23)
O'Hare	SVM V170 V84 OBK (L-23)

From Metro or Willow Run only

Buffalo	V221 V90 V14N Crystal Beach (L-12)
Cleveland	Stripe V297 Vermillion (L23)
Ft. Wayne	Dexter V221 (L-23)
Midway	Pinckney V170 V84 V7E V116 (L-12, 23)
Milwaukee	Dexter V116 JXN V45 Leslie V170 PMM V30S Pike (L-12, 23)
O'Hare	Pinckney V170 V84 OBK (L-12, 23)
Pittsburgh	Stripe V133 Bay V6 V42 ACO V297 EWC (L23, 24)
Rochester	V221 V90 V14 V2 (L-12)
Washington	Stripe V133 ZZV V144 ESL V4 HRN (L23, 24)

EL PASO

Dallas	HUP V66 MAF V16S BGS V16 ABI V66 Denton V114 Lakeside (L-4, 13)
Los Angeles	EWM V94 GBN V461 BXK V16 ONT (L-4, 3)
San Antonio	HUP V198 Boerne (L-4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 PRR (L-19)

HOUSTON METRO AREA

Atlanta	LaPorte V20S LCH V20 LFT V70 MVC V20 MGM V20N Sharps (L17, 18, 14, 20)
Dallas	Gulf Coast V477E Forney (L-17, 13)
New Orleans	LaPorte V20S LCH V20 Turtle (L-17)
San Antonio	Andrau V222 Hunter (L-17, 15)

INDIANAPOLIS

Detroit	V11 SVM (L-23)
Evansville	V11W SCJ V11E (L-21)
Kennedy	V50 DAY V12 V106 V276 RBV (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V1 V10 Milan (L23)
Midway	V97W V97 CGT (L-23)
Newark	V50 DAY V12 V106 V30 Rocky Hill (L23, 24)
Pittsburgh	V50 DAY V12 HLG (L-23, 24)
St. Louis	V14 Staunton (L21)
Willow Run	V11 V10 Milan (L23)

JACKSONVILLE

Atlanta	Kings V5E DBN V5 McDonough (L18, 20)
Dulles	Clinch V3E SAV V3 RDU V155 GVE V39E Brandy (L18-20-22)
Kennedy	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 BGT (L-18, 20, 22, 24)
LaGuardia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 RBV (L-18, 20, 22, 24)
Miami	Blue Jacket V267 New River (L-19)
Newark	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 Rocky Hill (L-18, 20, 22, 24)
Norfolk	Clinch V3E SAV V437 CHS VI MYR V213 RMT V189 FKN V266 Burdette (L18-20-22)
Orlando	Blue Jacket V267 Woodruff (L-18, 19)
Philadelphia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 OOD (L-18, 20, 22, 24)
Washington	Clinch V3E SAV V3 RDU V155 LVL V157 Ironsides (L-18, 20, 22)

KANSAS CITY METRO AREA

Midway	Excelsior V116 JOT (L-21, 23)
O'Hare	Excelsior V116 JOT (L-21, 23)
St. Louis	BSP V12 MTS (L-21)
Wichita	Bonner Springs V12 De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 Liberty (L-21, 22, 24)
Newark	V4 CRW V106 V30 Rocky Hill (L-21, 22, 24)

MEMPHIS

Atlanta	HLI V176 BHM V18S Palmetto (L14, 20)
Dallas	Prichard V16S PBF V16 DAL (L13–L14)
Dulles	Moscow V16S GHM V16 V140 MOL V251 V174 Blue Ricge (L14, 21, 22)
Midway	Cuba V9W V9 JOT (L-14, 21, 22)
New Orleans	Savage V9W GRW V9 Madison (L14–L17)
O'Hare	Cuba V9W V9 JOT (L-14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 Ironsides (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta	MIA V7 LAL V157 AMG V5 McDonough (L19, 18, 20)
Charlotte	MIA V7 LAL V157 ALD V37 FML (L19–L18–L20)
Chicago	MIA V35 FMY V7 LAL V157 AMG V51 DBN V267 TYS V97 CGT (L19, 20, 22, 21, 23)
Cleveland	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 Sharon (L19, 20, 22, 21, 23)
Detroit (city)	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 QG (L19, 20, 22, 21, 23)
Dulles	Guppy drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E **Brandy** (L19–L20–L22)
Habana	Gary V51 EYW drct SF/Rbn or PRR/Rbn B19 EYW drct SF. Rbn (L19)
Kennedy	Guppy drct Halibut Control 1150 ILM V1 BGT (L-19, 20, 22, 24)
Jacksonville	Martin V3E PBI V3 DAB V3E Shiloh (L-19)
La Guardia	Guppy drct Halibut Control 1150 ILM V1W V213 RBV (L-19, 20, 22, 24)
Metro Wayne Co.	MIA_ V7 LAL V157 ALD V37 PSK PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)
Newark	Guppy drct Halibut Control 1150 ILM V1 V29 V433 Rocky Hill (L-19, 20, 22, 24)
Pittsburgh	MIA V7 LAL V157 ALD V37 AGC (L19–L20–L22–L24)
Tampa	MIA V7 V35 Hansen (L19)
Washington	Guppy drct Halibut Control 1150 ILM V1 ISO V157 Ironsides (L-19–L20–L22)
Willow Run	MIA V7 LAL V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 API; or Taylor V7E V116 Surf (L-12, 23)
Detroit	V2S MKG V2 SVM (L-12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 RBV (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	Prescott V2 V97 V171 V6 API (L-10, 11, 23)
O'Hare	Prescott V2 V97 Lakewood (L-10, 11, 23)

MONTGOMERY

Washington	TPE V154 MCN V56 AGS V155 V157 Ironsides (18, 20, 22)

NASHVILLE

LaGuardia	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V213 RBV (L21, 22, 24)
Newark	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 Rocky Hill (L21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta	PCU V70 MVC V20 MGM V20N Sharps (L17, 18, 20)
Birmingham	PCU V455 MEI V154 V209 BWA drct BHM/LOM (L-17, L-18, L-14)
Dallas	Walker V-114N AEX V-114 GGG V-94 V-477E Forney (L-17, 13)
Dulles	PCU V70 MVC V20 SBV V39 GVE V39E Brandy (L-17, 18, 20, 22)
Houston	TBD V20S LFT V20 LCH V222N Monument (L-17)
Kennedy	PCU V70 MVC V20 V213 ENO V44 Barnegat (L-17, 18, 20, 22, 24)
Memphis	PCU V9E MCB V9 GRW V9E Independence (L-14)
Newark	PCU V70 MVC V20 V213 ENO V29 V433 Rocky Hill (L-17, 18, 20, 22, 24)
Washington	PCU V70 MVC V20 SBV V39 GVE V16 Ironsides (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	Sound POU V487 Brainard (L-25)
Bradley	Sound V433 Waterbury (L25)

From Newark only

Albany	SAX POU V487 Brainard (L-25)
Atlanta	SBJ V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	SBJ V3 V93 (L24)
Boston	SAX POU V58 V167 Sterling (L25)
Buffalo	TVE V188 V147 V36 Dale (L-25)
Cincinnati	SBJ V3 V166 V4 V174 V128 California (L24–22)
Cleveland	TVE V232 Mentor (L-24, 23)
Detroit (City)	TVE V188 TOH V147 V116 QG (L24, 23)
Detroit Metro Area	TVE V188 V147 V116 QG (L24, 23)
Dulles Int'l	SBJ V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	TVE V232 ETG V226 V119 V210 (L24–23)
Jacksonville	SBJ V3 V29 SBY V1 V437 SAV V3 St. Marys (L24, 22, 20, 18)
Louisville	SBJ V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co.	TVE V188 TOH V147 V116 QG (L24, 23)
Miami	SBJ V3 V29 SBY V1 Control 1150 Sturgeon drc Tarpon drct PBI V159E Oakland (L-24, 22, 20, 19)
Nashville	SBJ V3 EMI V39 V140 Lebanon (L24, 22, 14)
New Orleans	SBJ V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18)
Norfolk Metro Area	SBJ V3 V29 SBY V1 CCV (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 Warrington (L24)
Pittsburgh	TVE V232 ETG V226 EWC (L-24)
Providence	SAX POU V58 V130 Lafayette (L25)
Rochester	SAX V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	SAX V483 (L-25)
Toledo	TVE V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	TVE V188 TOH V147 V116 QG (L24, 23)

From Kennedy only

Atlanta	Dutch V308 ENO V213 V20 SPA V20N OCR (L24, 22, 20)
Baltimore	Dutch V308 ENO V268 (L24)
Boston	HTO V139 HTM (L25)
Buffalo	HUO V126 V36 Dale (L-25)
Cleveland	HUO V126 V58 IPT V188 JFN V14 Mentor (L25, 24, 23)
Detroit	HUO V126 V116 QG (L25, 24, 23)
Dulles	HUO V39 V162 HAR V223 Sugar Loaf (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	Dutch V139 V1 V437 V3 St. Marys (L-24, 22, 20, 19)
Louisville	HUO V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
Metro Wayne Co.	HUO V126 BFD V172 V188 V103 Lasalle (L25, 24, 23)
Miami	Dutch V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E Oakland (L-24, 22, 20, 19)
Montreal	Sound POU V487 (L-25, 26)
New Orleans	Dutch V308 OTT V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	Dutch V139 CCV (L-24, 22)
O'Hare	HUO V126 V116 V170 V84 OBK (L25, 24, 23)
Philadelphia	Dutch V312 CYN V16 V239 OOD (L24)
Pittsburgh	HUO V126 AVP V58 V226 EWC (L-25, 24)
Providence	HTO V139 (L25)
Rochester	HUO V249 V34 Fishers (L-25)
Syracuse	HUO V483 (L25)
Toronto	HUO V126 AVP V36 (L-25, 12)
Washington	Dutch V308 North Beach (L24, 18)
Willow Run	HUO V126 AVP V116 QG (L25, 24, 23)

From LaGuardia only

Atlanta	Paterson V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	Paterson V3 V93 (L24)
Boston	Sound V467 MAD V475E V16 BOS (L25)
Buffalo	SAX V36 Dale (L-25, 12)
Cincinnati	Paterson V3 V166 V4 V174 V128 California (L24–22)
Cleveland	SAX TOH V188 JFN V14 Mentor (L-24, 23)
Columbus	SAX TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	SAX TOH V147 V116 QG (L24, 23)
Dulles Intl	Paterson V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	SAX TOH V226 V119 V210 (L24, 23)
Louisville	Paterson V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	Sound POU V487 (L-25)
Metro Wayne Co.	SAX TOH V147 V116 QG (L24, 23)
Nashville	Paterson V3 EMI V39 V140 Lebanon (L24, 22, 14)
O'Hare	SAX TOH V147 V116 V170 V84 OBK (L24, 25)
Philadelphia	Paierson V3 Warrington (L24)
Pittsburgh	SAX TOH V226 EWC (L24)
Providence	Sound V467 V475E V130 Lafayette (L24, 25)
Rochester	SAX V116 AVP V29 V423 V34 Fishers (L25)
Toronto	SAX V36 (L-25, 12)
Washington	Paterson V3 ESR V140 Dayton GTN/Rbn DCA (L24)
Willow Run	SAX TOH V147 V116 QG (L24, 23)

NORFOLK METRO AREA

Charlotte	CVI V194 RDU V66 Midland (L22, 20)
Dulles	Farnham V286 Brandy (L22)
Kennedy	CCV V1 BGT (L-22, 24)
Jacksonville	CVI VI CHS V437 SAV V3 St. Marys (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 RBV (L-22, 24)
Newark	CCV V1 SBY V29 V433 Rocky Hill (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 OOD (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 Ironsides (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	Prague V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	Crescent V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 Brooks (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E Shiloh (L-19)

PHILADELPHIA METRO AREA

Baltimore	EWT V166 V93 (L-24)
Boston	MIV 101 rad V139 HTM (L24, 25)
Buffalo	Boyer V170 SLT ELZ V119 Burns V36 Dale (L-25)
Cleveland	Boyer V162S HAR V12 AGC V8 BSV V40 Sharon (L-24, 23)
Detroit (City)	Boyer V162S V12 V37 V103 V42 QG (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 Sugar Loaf (L24)
Kennedy	Columbus V123 RBV (L-24)
Jacksonville	MIV 205 rad ATR V1 V437 V3 St. Marys (L24, 22 20, 19)
LaGuardia	Columbus V213 RBV (L-24)
Metro Wayne Co.	Boyer V162S V12 V37 V103 Lasalle (L24, 23)
Miami	MIV 205 rad ATR V1 Control 1150 Sturgeon Tarpon PBI V159E Oakland (L28, 27, 19)
Newark	V433 Rocky Hill (L-24)
Norfolk	MIV 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	Boyer V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	EWT V166 V140 Dayton GTN/Rbn DCA (L24)
Willow Run	Boyer V162S V12 V37 V103 Lasalle (L24, 23)

PHOENIX

Albuquerque	Lake V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 Harrington Ranch (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N Farley (L-4, 6)

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 Sharon (L-23, 24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
Willow Run	V40 V42 V103 Lasalle (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 OCR (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 (L-24) EMI
Boston	Freeport V119 V276 TON V35 ELM V72 ALB V2 GDM (L-24, 25)
Charleston W. Va.	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 Niles (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
Detroit	V40 V42 V103 Lasalle (L24, 23)
Kennedy	V119 V276 RBV (L-24)
Indianapolis	V210; or Kilgore V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 Liberty (L24)
Newark	V119 V276 Reedsville V106 SEG V30 Rocky Hill (L-24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
St. Louis	Kilgore V210 Staunton (L23, 21)
Washington	V103 V92 FRR V4 HRN (L-24)

From Allegheny Co. only

Chicago	AGC V8 FDY V422 CGT V7 Niles (L-24, 23)
Kennedy	V12 V106 Reedsville V276 RBV (L24)
LaGuardia	V12 V106 SEG V6 V433 Liberty (L24)
Newark	V12 V106 V30 Rocky Hill (L24)

PROVIDENCE

Kennedy	V167 V16 RVH (L25)
LaGuardia	V167 V3 V445 Stamford (L52)
Newark	V167 HFD V292 Budd Lake (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 OOD (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 GDM (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 Park (L-12, 23)
Kennedy	V147 GEE V252 BGM V270 V34 CMK BDR RVH (L25)
LaGuardia	V147 ABE V6 V433 Liberty (L-25)
Newark	V147 TOH V226 Budd Lake (L25)
Philadelphia	V147 ABE V149 V3 Warrington (L25–24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn DCA (L25–24)
Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 Lasalle (L12, 23)

SAN ANTONIO

Dallas	Mission V17 ACT V15 Desoto (L-15, 17, 13)
El Paso	Guadalupe V222 Rio (L-15, 4)
Houston	Clear Spring V198 ELA V180 Arcola (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	LIN V113 RNO V6 MBW V100 Lakewood (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	Shrimp V27 SBP V137 Pozo V25 V12 FIM (L-2, 3)
Kennedy	LIN V113 RNO V6 MBW V100 OBK V84 LAN V2 SVM V116 ERI V170 V276 RBV (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	TOY V12 Wilbur V11 IND V14 FDY V8 MFD V246 Sharon (L-21. 23)
Columbus	TOY V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 Lakeside (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 Justin (L-21, 6, 13)
Indianapolis	TOY V12 Wilbur V11 (L-21, 23)
Kansas City	V4 Missouri City (L-21)
Memphis	V9 Kerrville (L-21, 14)
Midway/O'Hare	V9 JOT (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	TOY V52 EVV V4 HRN (L-21, 22)

SYRACUSE

Kennedy	V273 HNK V34 CMK BDR RVH (L25)
LaGuardia	V153 V29 V6 V433 Liberty (L25)
Newark	V273 Budd Lake (L25)
Philadelphia	V29 BGM V149 V3 Warrington (L25–24)

TAMPA METRO AREA

Atlanta	V97W Scallop V97 Brooks (L-19, 18, 20)
Miami	Gibson V97 MIA (L-19)

TORONTO

Kennedy	V34 CMK BDR RVH (L12, 25)
LaGuardia	V36 V147 V6 V433 Liberty (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 JOT (L-6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 Lakeside (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis	V140 FYV V72 V9 Lemay (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston	Swan Point V268 V139 HTM (L24–25)
Chicago	Flint Stone V8 FDY V422 CGT (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 Sharon (L-24, 23)
Jacksonville	BRV V3 St. Marys (L-22, 20, 18)
Kennedy	Swan Point V123 RBV (L24)
LaGuardia	Swan Point V123 RBV (L24)
Newark	Swan Point V433 Rocky Hill (L24)
Philadelphia	Swan Point V123 OOD (L24)
Pittsburgh	Flint Stone V8 AGC (L-24)

From Washington only

Atlanta	CSN V140 MOL V143 LYH V222 AVL V35 Clemson V20N OCR (L-22, 20)
Charleston W. Va.	CSN V308 V174 V4 Ivydale (L22)
Charlotte	BRV V3 RDU V66 Midland (L22, 20)
Dallas	CSN V140 BNA V16 DAL (L22, 21, 14, 13)
Greensboro	CSN V140 MOL V143 Leaksville (L-22)
Harrisburg	Ashburn V8N V223 (L-24)
Jacksonville	BRV V3 St. Marys (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21, 14)
Miami	BRV V3 V155 V157 V213 V1W ILM Control 1150 Sturgecn Tarpon PBI V159E Oakland (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	CSN V140 Lebanon (L22, 21)
New Orleans	CSN V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W Madison (L22, 20, 14, 18)
Norfolk Metro area	BRV V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 St. Marys (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	EMI V166 EWT V157 RBV or EMI V166 V239 V238 ACY V1 BGT (L-24)
Jacksonville	CSN V39 GVE V155 FAK V3 St. Marys (L24)
LaGuardia	EMI V166 EWT V157 RBV (L-24)
Miami	CSN V39 GVE V155 V157 V213 V1W ILM Control 1150 Sturgeon Tarpon PBI V159E Oakland (L22, 20, 19)
Newark	EMI V166 EWT V433 Rocky Hill (L-24)
Philadelphia	Braddock HRN 354 rad V251 V238 ESR (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E Langaton (L6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Part 1)

(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3.000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Philipsburg VORTAC 082 radial Philipsburg VORTAC 082 radial to Philipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**—Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transiton**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 090 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 082 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, headiing 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

• ALABAMA

BROOKLEY "BFM" VORTAC SHUTDOWN

Oct 24. VORTAC will be shutdown until aprxly Oct 25. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V22....	Dog Int to BFM VORTAC	None		
	BFM VORTAC to NUN VOR	Tmpry BFM Int to NUN VOR via NUN VOR 279 rad	3,000	17,500
V242...	MOB VORTAC to BFM VORTAC	MOB VORTAC to Tmpry BFM Int via MOB VORTAC 108 rad	3,000	17,500
V425...	BFM VORTAC to Axis Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Daphne Int....................	MVC VOR 206 rad and NUN VOR and NUN VOR 279 rad	3,000
Axis Int......................	MOB VORTAC 043 rad and GCV VOR 109 rad	1,000
Tensaw Int....................	MOB VORTAC 043 rad and GCV VOR 093 rad	1,000
Stockton Int..................	MOB VORTAC 058 rad and NUN VOR 315 rad	1,300
BFM VORTAC....................	Tmpry BFM Int—NUN VOR 279 rad and MVC 212 rad	3,000

All other Ints based on BFM VORTAC are unusable.

• FLORIDA

ST. PETERSBURG "PIE" VORTAC SHUTDOWN

Nov 1, VOR will be shutdown until aprxly Nov 3. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V97/492	Arcadia Int to Gibson Int	Arcadia Int to Tmpry Gibson Int via LBV 312 rad	5,000	17,000
V97/492	Gibson Int t' PIE VORTAC	Tmpry Gibson Int to PIE VORTAC via LBV 312 rad	8,000	17,000
V97....	PIE VORTAC to Shrimp Int	None		
V97....	Shrimp Int to Scallop Int	Tmpry Shrimp Int to Scallop Int via TLH 153 rad	11,000	17,000
V97....	Scallop Int to Clam Int	Scallop Int to Clam Int via TLH 153 rad	8,000	17,000
V97W..	PIE VORTAC to Scallop Int	None		
V35W..	PIE VORRAC to Oyster Int	None		
V35W...	Oyster Int to CTY VOR	Tmpry Oyster Int to CTY VOR via CTY 184 rad	4,500	17,000
V35W..	PIE VORTAC to FMY VOR	Tmpry PIE Int to FMY VOR via SRQ 346/165 rad and FMY 315 rad	2,000	17,000
V35....	FMY VOR to Murdock Int	FMY VOR to Tmpry Murdock Int via FMY 330 rad	2,000	17,000
V35....	Murdock Int to PIE VORTAC	Tmpry Murdock Int to tmpry PIE Int via FMY 330 rad	7,000	17,000
V35....	PIE VORTAC to Richey Int	Tmpry PIE Int to Richey Int via CTY 167 rad	9,000	17,000
V35....	Richey Int to CTY VOR	Richey Int to CTY VOR via CTY 167 rad	4,000	17,000
V35E/441	PIE VORTAC to Hazel Int	Tmpry PIE Int to tmpry Hazel Int via GNV 189 rad	9,500	17,000

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V35E/441	Hazel Int to Homo Int	Tmpry Hazel Int to Homo Int via GNV 189 rad	5,500	17,000
V152N	PIE VORTAC to Dade City Int	None		
V441E	PIE VORTAC to Webster Int	None		
V152	PIE VORTAC to Porter Int	Tmpry PIE Int to tmpry Porter Int via ORL 242 rad	5,000	17,000
V152	Porter Int to ORL VORTAC	Tmpry Porter Int to ORL VORTAC via ORL 242 rad	2,500	17,000
V152S	PIE VORTAC to LAL VORTAC	Tmpry PIE Int to LAL VORTAC via LAL 262 rad	2,000	17,000
V97	PIE VORTAC to TLH VORTAC	None during shutdown of PIE VORTAC		

Existing Reporting Points	Temporary Reporting Points	MRA
PIE VORTAC	Tmpry PIE Int—LAL VORTAC 262 rad and FMY VOR 330 rad	7,000
Shrimp Int	CTY VOR 184 rad and OCF VORTAC 240 rad	3,000
Oyster Int	LAL VORTAC 288 rad and OCF VORTAC 225 rad	4,500
Hazel Int	GNV VORTAC 189 rad and LAL VORTAC 300 rad	5,000
Hanson Int	FMY VOR 330 rad and LAL VORTAC 224 rad	4,000
Gibson Int	LBV VOR 312 rad and LAL VORTAC 224 rad	5,000
Porter Int	ORL VIRTAC 242 rad and LAL VORTAC 300 rad	2,500
Bayport Int	LAL VORTAC 306 rad and GNV VORTAC 189 rad	5,500
Orange Grove Int	ORL VORTAC 242 rad and LAL VORTAC 350 rad	2,500
Murdock Int	FMY VOR 330 rad abd LAL VORTAC 201 rad	2,000
Eddy Int	CTY VOR 167 rad abd OCF VORTAC 201 rad	2,000
Webster Int	None	
Hudson Int	None	
Snook Int	None	
Dandee Int	None	
Crab Int	None	
Chub Int	None	
Bluegill Int	None	
Dawson Int	None	
Gumbo Int	None	
Darby Int	None	
Landfall Int	None	
Wilson Int	None	
Renton Int	None	
South Bay Int	None	
Mussell Int	None	
Dade City Int	None	

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J41/43	TLH VORTAC to PIE VORTAC	Tmpry TLH Int to tmpry PIE Int via CTY VOR 313 rad to CTY VOR thence via CTY VOR 167 rad to Tmpry PIE Int	FL 180	FL 450
J119	GNV VORTAC to PIE VORTAC	GNV VORTAC to tmpry PIE Int via GNV VORTAC 189 rad	FL 180	FL 450
J103	ORL VORTAC to PIE VORTAC	ORL VORTAC to tmpry PIE Int via ORL VORTAC 242 rad	FL 180	FL 450
J41	MIA VORTAC to PIE VORTAC	MIA VORTAC to tmpry PIE Int via MIA VORTAC 316 rad	FL 250	FL 450
J119	MIA VORTAC to PIE VORTAC	MIA VORTAC to tmpry PIE Int via MIA VORTAC 297 rad and FMY VORTAC 115 rad to FMY VORTAC thence via FMY VORTAC 330 rad to Tmpry PIE Int	FL 180	FL 450
J43	EYW VORTAC to PIE VORTAC	EYW VORTAC to tmpry rad and FMY VORTAC 177 rad to FMY VORTAC thence via FMY VORTAC 330 rad to tmpry PIE Int	FL 180	FL 450

Existing Reporting Points	Temporary Reporting Points	MRA
PIE VORTAC	Tmpry PIE Int—FMY VORTAC 330 rad and ORL VORTAC 242 rad	FL 180

MICHIGAN

ESCANABA "ESC" VORTAC SHUTDOWN

Aug 22, VORTAC will be shutdown until aprxly Oct 13. For substitute route structure during shutdown use the following:

Low Altitude

Routes	Existing Routes	Substitute Routes	MEA	MAA
V7	MNM VOR to ESC VOR	MNM VOR to Tmpry ESC Int via MNM 035 rad	2,400	17,500
V133	MQT VOR to ESC VOR	MQT VOR to Tmpry ESC Int via MQT 158 rad	4,000	17,500
V133	TVC VOR to ESC VOR	TVC VOR to Tmpry ESC Int via TVC 317 rad	10,000	17,500
V430	IMT VOR to ESC VOR	IMT VOR to Tmpry ESC Int via IMT 096 rad	3,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA	MAA
ESC VOR	MNM VOR 035 rad and and MQT VOR 158 rad	4,000	17,500

NEW YORK

ITHACA "ITH" VOR SHUTDOWN

VOR will be shut down til aprxly Nov 11. For substitute route structure during shutdown, use flwg:

Airways	Existing Airways	Substitute Routes	MEA	MAA
V34	Bellona Int to ITH VOR	None		
V34	ITH VOR to HNK VOR	None		
V423	BGM VOR to ITH VOR	None		
V423	ITH VOR to Scipio Int	None		
V428	ITH VOR to GGT VOR	ITH to GGT VOR via GGT VOR 249 rad	3,800	17,500
V428	ELM VOR to ITH VOR	ELM VOR to ITH Int via ELM VOR 055 rad	3,800	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
ITH VOR	Tmpry ITH Int: BGM VOR 335 rad GGT VOR 249 rad	3,800
Cortland Int	Cortland Int: GGT VOR 249 rad and BGM VOR 007 rad	3,800

OHIO

BRIGGS "BSV" VORTAC SHUTDOWN

Due to unusable sectors, following substitute route is efctv immediately.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V40,75	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,75,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500
BSV VORTAC		Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad	3,100	

• PENNSYLVANIA

MILTON "MIP" VORTAC SHUTDOWN

VORTAC shut down til aprxly Oct 26. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V232	ETG VOR to TVE VOR	via ETG VOR 105 rad and HZL VOR 287 rad to HZL VOR thence via TVE VOR 283 rad to TVE VOR	5,000	17,500

Existing Reporting Point	Temporary Reporting Point	MRA
Watson Int	HZL VOR 287 rad and SEG VOR 017 rad	4,000
Hillsgrove Int	None	
Picture Rocks Int	None	

• SOUTH DAKOTA

WATERTOWN "ATY" VOR SHUTDOWN

Oct 11, VOR will be shutdown til aprxly Oct 13. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V24	ABR VOR to ATY VOR	ABR VOR to ATY Int via ABR VOR 106 rad	4,500	17,500
	RWF VOR to ATY VOR	RWF VOR to ATY Int via RWF VOR 283 rad	6,000	17,500
V24N	ABR VOR to ATY VOR	None		
V181	Barney Int to ATY VOR	Barney Int to ATY Int via FAR VOR 178 rad	10,300	17,500
	FSD VOR to Oakwood Int	FSD VOR to Oakwood Int via FSD VOR 340 rad	5,000	17,500
	Oakwood Int to ATY VOR	Oakwood Int to ATY Int via FSD VOR 340 rad	6,500	17,500
V78	HON VOR to ATY VOR	HON VOR to ATY Int via HON VOR 047 rad	4,500	17,500
	DWN VOR to ATY VOR	DWN VOR to ATY Int via DWN VOR 261 rad	12,500	17,500
V78S	HON VOR to ATY VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
ATY VOR	Tmpry ATY Int—ABR VOR 106 RAD and HON VOR 047 rad	4,500
Oakwood Int	340 rad and HON 078 FSD VOR rad	5,000
Madison DME Fix	None	

• VIRGINIA

HERNDON "HRN" VOR SHUTDOWN

Oct 26, VORTAC will be shut down thru Nov 9. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V39	EMI VORTAC to HRN VORTAC	EMI VORTAC to HRN Int via EMI 226 rad	3,000	17,500
	HRN VORTAC to CSN VORTAC	HRN Int to CSN VORTAC via CSN 046 rad	3,000	17,500
V223	Keymar Int to HRN VORTAC	Keymar Int to HRN Int via HAR VORTAC 204 rad	9,500	17,500
V4	FRR VORTAC to HRN VORTAC	FRR VORTAC to HRN Int via FRR VORTAC 103 rad	4,000	17,500
V39E/223	HRN VORTAC to Brandy Int	None		
V140	HRN VORTAC to Towson Int	None		

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
HRN VORTAC	Tmpry HRN Int—EMI VORTAC 226 rad and FRR VORTAC 103 rad and MRB VORTAC 149 rad and CSN VORTAC 046 rad	2,500
Sugarloaf Int	HAR VORTAC 204 rad and MRB VORTAC 110 rad	5,000
Ashburn Int	DCA VORTAC 331 rad and BAL VORTAC 276 rad	2,800
Brandy Int	BRV VORTAC 306 rad and GVE VORTAC 040 rad	2,800

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J30/34	FRR VORTAC to HRN VORTAC	FRR VORTAC to Tmpry HRN Int via FRR VORTAC 103 rad	FL 180	FL 450

Existing Reporting Points	Substitute Reporting Points	MRA
HRN VORTAC	Tmpry HRN Int—FRR VORTAC 103 rad GVE VORTAC 034 rad	FL 180

•WEST VIRGINIA

PARKERSBURG "PKB" VOR SHUTDOWN

Oct 17, VOR will be shut down thru Oct 24. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V38	ZZV VOR to PKB VOR	ZZV VOR to PKB Int via ZZV VOR 144 rad	3,000	17,500
V38	PKB VOR to EKN VORTAC	PKB Int to EKN VORTAC via EKN VORTAC 302 rad	5,000	17,500
V69	BKW VOR to PKB VOR	None		
V69	PKB VOR to CTW VOR	PKB Int to CTW VOR via CTW VOR 177 rad	3,000	17,500
V119	AIR VOR - PKB VOR HNN VOR	AIR 221 rad to HNN 039 rad to HNN	3,000	17,500
V115	AGC VORTAC to PKB VOR	None		
V115	PKB VOR to CRW VORTAC	PKB Int to CRW VORTAC via CRW VORTAC 019 rad	3,000	17,500
V44	MGW VORTAC — PKB VOR—YRK VOR	MGW 270 rad to YRK VOR 059 rad to YRK	7,500	17,500
V166	CKB VOR to PKB VOR	CKB VOR to PKB Int via CKB VOR 287 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
PKB VOR	Tmpry PKB Int AIR VOR 221° rad CTW VOR 177 rad and MGW VORTAC 270 rad and EKN VORTAC 302 rad	3,000
Beallsville Int	ZZV 106 rad and AIR 221 rad	3,100
Dexter Int	ZZV 144 rad and AIR 244 rad	3,000
Caldwell Int	ZZV 124 rad and CTW 177 rad	3,000
Woodsfield Int	ZZV 114 rad and AIR 221 rad	3,100
Pullman Int	AIR 206 rad and MGW 270 rad	4,000
St. Marys Int	AIR 206 rad and EKN 302 rad	3,500
Belpre Int	CKB 271 rad and CRW 019 rad	2,500
Reedsville Int	ZZV 169 rad and HNN 039 rad	3,000

Existing Reporting Points	Temporary Reporting Points	MRA
Taylor Int	None	
Elkhorn Int	None	
Harvard Int	None	
Belgium Int	None	

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J89/101	OBK VORTAC to MKE VORTAC	OBK VORTAC to MKE Int OBK VORTAC 343 rad	FL 180	FL 450
J34/70	PMM VORTAC to MKE VORTAC	PMM VORTAC to MKE Int via PMM VORTAC 293 rad		
J34/36	ODI VORTAC to MKE VORTAC	ODI VORTAC to MKE Int via ODI VORTAC 104 rad	FL 180	FL 450
J105	BDF VORTAC to MKE VORTAC	BDF VORTAC to MKE Int via BDF VORTAC 022 rad	FL 180	FL 450
J101	BRB VORTAC to MKE VORTAC	GRB VORTAC to MKE Int via GRB VORTAC 182 rad	FL 180	FL 450
J16/36	MKE VORTAC to ECK VORTAC	None		
J70	MSP VORTAC to MKE VORTAC	None		
J89	DLH VORTAC to MKE VORTAC	None		
J16	MCW VORTAC to MKE VORTAC	None		

Existing Reporting Point	Temporary Reporting Point	MRA
MKE VORTAC	Tmpry MKE Int—OBK VORTAC 343 rad and PMM VORTAC 293 rad	FL 180

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

ABERDEEN

42nd Edition, August 18, 1966

No hazardous changes.

ALBANY

57th Edition, July 21, 1966

Add UNICOM Barnes Muni arpt 42°09'39"N, 72°42"-48"W. Add ctl twr freq 122.7R Oneida County. Add UNICOM Sicho arpt 42°41'25"N, 73°34'50"W.

ALBUQUERQUE

57th Edition, August 18, 1966

No hazardous changes.

•AROOSTOCK

43rd Edition, April 28, 1966

Add Loring AF VOR freq 115.0 ident LIZ class L mag

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var 22°W 46°50'10"N, 67°51'24"W. Relocate Andover SPB 46°48', 67°47'W to 46°46'N, 67°42'W

•AUSTIN

61st Edition, April 28, 1966

Change Hood AAF twr freq from 118.6 to 126.2. Delete Allison Ranch arpt 30°34'N, 101°49'W. Delete Halbert Ranch arpt 30°35'N, 100°43'W. Delete RP Mayer Ranch arpt 30°35'N, 100°48'W. Delete Copeland Ranch arpt 30°43'N, 100°28'W. Delete Mayfield arpt 30°34'N, 100°48'W. Delete Mayfield Station B arpt 30°17'N, 100°14'W. Delete West Texas Boys Ranch arpt 31°20'N, 100°37'W. Delete Bruton arpt 30°54'N, 100°-48'W. Add obstn 695' MSL 31°34'09"N, 97°00'00"W. Relocate Lampasas County airport from 31°08'30"N,

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98°14'15"W to 31°06'23"N, 98°11'45"W. Add obstn 1100' MSL 30°44'30"N, 97°36'28"W.

•BEAUMONT

56th Edition, September 15, 1966

Add obstn 417' MSL 30°01'39"N, 92°17'17"W. Add obstn 495' MSL 30°23'03"N, 91°03'27"W. Add obstn 430' MSL 30°14'20"N, 92°14'03"W. Add obstn 411' MSL 29°58'44"N, 92°09'15"W. Add Polk AAF VOR freq 108.4 ident POE class LVOR mag var 7°E 31°06'-41"N, 93°13'03"W.

•BELLINGHAM

53rd Edition, May 26, 1966

Add UNICOM Campbell River arpt 49°57'N, 125°16'W. Add V304 awy Vancouver to Enderby (036°M from

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Vancouver). Delete Belcher arpt 48°15'N, 122°17'W.

•BIRMINGHAM

62nd Edition, Oct. 13, 1966

No hazardous changes.

•BOISE

42nd Edition, May 26, 1966

Delete FM Eagle code — — — — — 43°43'30"N, 116°26'-00'W. Add R-3202 bounded on the S by 42°40'00", W by

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115°38'14"N by 42°48'45" and E by 115°32'41". Delete Allen arpt 43°44'N, 118°05'W.

BOSTON

58th Edition, September 15, 1966

No hazardous changes.

BURLINGTON

46th Edition, April 28, 1966

Add obstn 430' MSL 45°04'42"N, 74°46'18"W. Delete Trenton RBn 44°03'13"N, 77°37'37"W. Delete Deseronto arpt 44°11'N, 77°07'W. Add Camp Petawawa RBn freq 284 ident WP class MHW 45°56'19"N, 77°18'45"W.

BUTTE

46th Edition, July 21, 1966

Add UNICOM Boulder arpt 46°13'N, 112°06'W.

•CASPER

52nd Edition, Oct. 13, 1966

No hazardous changes.

•CHARLOTTE SECTIONAL CHART

59th Edition, Oct. 13, 1966

No hazardous changes.

•CHATTANOOGA

58th Edition, August 18, 1966

Add UNICOM Albertville arpt 34°14'N, 86°15'W.

•CHEYENNE

54th Edition, June 23, 1966

Add obstn 4536' MSL 41°11'09''N, 103°03'05''W. Add obstn 4567' MSL 41°21'57"N, 102°58'24"W. Delete aband arpt symbol and type 40°36'N, 105°09'W. Add UNICOM Fort Collins-Loveland arpt 40°27'N, 105°01'W. Add obstn 5586' MSL (9 towers) 40°40'41''N, 105°02'50''W. Delete Buske arpt 41°35'N, 102°35'W. Change Meeker VORTAC freq 111.8 Ch 55 to 115.2 Ch 99 40°04'03''N, 107°55'27''W.

•CHICAGO

62nd Edition, May 26, 1966

Delete Carm arpt 43°45'N, 88°01'W. Add Sturgis RBn freq 380 ident IRS class MHW 41°49'N, 85°26'W. Delete ctl twr freq 342 at DuPage Co. Delete Berg arpt 40°33'N, 84°14'W. Add unicom Allen Co arpt 40°42'N, 84°02'W. Delete Goshen RBn 41°31'N, 85°52'W. Add obstn 1050' MSL 41°08'17''N, 87°53'46''W. Add obstn 1019' MSL 41°19'56''N, 88°49'30''W. Delete Prosperi arpt 41°33'N, 87°47'W. Add UNICOM Kirsch arpt 41°49'N, 85°26'W. Add UNICOM Marion arpt 40°29'N, 85°41'W. Delete UNICOM Wapakoneta 40°37'N, 84°11'W.

•CINCINNATI

62nd Edition, August 18, 1966

Add Connersville non-federal RBn freq 275 ident CEV class MHW 39°41'51''N, 85°08'04''W. Delete Morrow arpt 39°20'N, 84°08'W. Add Huntingburg non-federal RBn freq 239 ident HNB class MHW 38°14'51''N, 86°56'47''W.

•CLEVELAND

62nd Edition, May 26, 1966

Delete Norwalk arpt 41°16'00"N, 82°36'20"W. Delete Circle V arpt 41°05'N, 83°15'W. Delete Bedford (Cessna) arpt 40°05'30"N, 78°31'15"W. Add obstn 1395' MSL 40°50'17"N, 81°18'13"W. Add obstn 1814' MSL 40°39'45"N, 79°20'36"W. Delete UNICOM Butler-Roe arpt 40°51'N, 79°58'W. Delete Burke Lakefront SPB 41°30'45"N, 81°41'30"W. Change Strongsville VOR freq 108.4 to 112.0. Add UNICOM Rhea arpt 41°14'22"N, 79°25'54"W. Add obstn 2049' MSL 41°40'03"N, 83°21'22"W. Add UNICOM Wynkoop arpt 40°21'45"N, 82°29'45"W.

CORPUS CHRISTI

57th Edition, July 21, 1966

Add obstn 560' MSL 26°15'26''N, 98°13'53''W.

•DALLAS

63rd Edition, July 21, 1966

Delete Starnes arpt 33°53'N, 101°59'W. Increase obstn elev 3315' to 3469' MSL 33°31'15''N, 101°46'27''W. Change ctl twr freq 118.9 to 120.5 Greater Southwest Intnl 32°50'N, 97°03'W.

DEL RIO

41st Edition, November 11, 1965

Add UNICOM PRESIDIO arpt 29°34'N, 104°22'W. Add obstn 2216' MSL 29°43'27"N, 10048'46"W.

•DENVER

56th Edition, June 23, 1966

Add R-2602 beginning at 38°39'N, 104°52'W to 38°36'20"N, 104°52'W to 38°32'06"N, 104°49'18"W to 38°32'06"N, 104°45'00"W to 38°26'10"N, 104°45'00"W to 38°26'10"N, 104°57'13"W to 38°32'38"N, 104°57'13"W thence along Highway #115 to point of beginning. Altitudes surface to 35,000'. Time cont.

• DES MOINES

55th Edition, April 28, 1966

Delete Vander Wilt arpt 41°23'N, 92°48'W. Add obstn 1080' MSL 41°41'02"N, 91°30'16"W. Add obstn 1149' MSL 41°32'30"N, 91°16'36"W. Add UNICOM Maquoketa-Swift arpt 42°04'N, 90°45"W. Relocate Omaha RBn 41°03'18"N, 95°48'15"W to 41°22'N, 95°57'21"W change ident OMA to OM class MHW to HASB/LOM. Add obstn 1124' MSL 41°21'04"N, 93°13'58"W.

DETROIT

61st Edition, July 21, 1966

Add UNICOM Moorhead arpt 42°11'N, 79°53'W. Delete Central RBn 43°16'57''N, 81°26'28''W. Centralia ctl twr decmsnd 43°18'N, 81°31'W.

• DOUGLAS

44th Edition, Oct. 13, 1966

No hazardous changes.

•DUBUQUE

52nd Edition, September 15, 1966

Add obstn 1760' MSL 42°04'08"N, 95°19'51"W. Add obstn 1705' MSL 42°21'45"N, 95°29'15"W. Add obstn 1799' MSL 42°02'05''N, 95°37'05''W.

•DULUTH

40th Edition, July 21, 1966

In northern border delete Graham LFR legs box & type. Delete Robbel arpt 45°56'N, 90°28'W. Change ident DHL to DL Duluth RBn. Relocate Grand Rapids (Minn) VOR from 47°12'54''N, 93°30'40''W to 47°09'47''N, 93°29'21''W.

ELKO

46th Edition, May 26, 1966

Add V507 awy from Reno to Sod House (196°M from Sod House).

EL PASO

56th Edition, August 18, 1966

No hazardous changes.

FARGO

45th Edition, August 18, 1966

No hazardous changes.

●GLACIER PARK

39th Edition, Oct. 13, 1966

No hazardous changes.

GRAND CANYON

42nd Edition, May 26, 1966

Add Grand Canyon VOR freq 109.0 ident GCN class T-BVOR mag var 15°E 35°57'38''N, 112°08'50''W. Add UNICOM Grand Canyon Natl Park arpt 35°57'N, 112°09'W.

GRAND JUNCTION

44th Edition, May 26, 1966

Delete awy bcn site #65 code ● — ● 39°03'55''N, 108°44°50''W. Change freq 111.8 to 115.2 Meeker VOR.

GREEN BAY

53rd Edition, May 26, 1966

Delete Valley arpt 44°08'N, 88°30'W. Add Iron Mountain VOR freq 111.2 ident IMT class L/BVOR mag var 1°E 45°48'59''N, 88°06'43''W. Add ctl zone 5 mi radius Ford arpt 45°49'N, 88°07'W with S, SE & W extsns ctl efctv by NOTAM's. Add V9 Green Bay to Iron Mountain to Houghton (348°M from Iron Mountain). Add V430 awy Escanaba to Iron Mountain to Ironwood (297°M from Iron Mountain). Add V9E awy Iron Mountain to Marquette (027°M from Iron Mountain). Add 700' Transition area 6 mi radius Otsego Co arpt 45°01'N, 84°42'W a 1200' transition area 8 mi N & 5 mi S of 087°T bearing from Otsego Co arpt to a point 12 mi E & the airspace 5 mi each side of 304°T bearing from the arpt to V193. Add UNICOM Boyne Mtn arpt 45°10'N, 84°56'W.

●HAWAIIAN ISLANDS

18th Edition, December 9, 1965

Change Maui ctl twr freqs from 118.1 257.8 to 118.7 279.6. Delete ctl twr freq 278 at Hilo. Add obstn 6827' MSL 20°47'N, 156°14'W. Delete ctl twr freq 278 Gen Lyman. Delete ctl twr freq 265 MCAS Kaneohe Bay.

●HUNTINGTON

56th Edition, August 18, 1966

Delete UNICOM Potomac Airpark 39°41'N, 78°10'W. Delete Boggs arpt 39°52'N, 83°14'W.

●JACKSONVILLE

54th Edition, April 28, 1966

Delete 77 SUNSWEET arpt 31°35'N, 83°34'W. Delete Monticello arpt 30°32'N, 83°53'W. Add obstn 462' MSL 30°41'00''N, 83°19'02''W. Add obstn 1549' MSL 31°08'05''N, 84°06'16''W. Add UNICOM St. Marys arpt 30°45'N, 81°33'W. Add obstn 400' MSL 31°10'56''N, 82°18'44''W. Add obstn 346' MSL 31°17'53''N, 81°44'09''W. Delete Moody (AF) RBn 30°58'05''N, 83°11'35''W. Twr comsnd Liberty AAF freq 241.0 126.2 31°53'N, 81°34'W.

●KANSAS CITY

58th Edition, August 18, 1966

Delete Rush arpt 39°46'N, 95°15'W. Add UNICOM Civic Memorial arpt 38°53'N, 90°03'W. Add obstn 1090' MSL 39°03'14''N, 95°34'08''W. Delete Farley RBn 39°18'48''N, 94°49'36''W. Add UNICOM Booneville arpt 38°59'N, 92°45'W.

KANSAS CITY LOCAL

36th Edition, August 18, 1966

Correct lctn Berry Arpt to 38°52'N, 94°10'W.

KLAMATH FALLS

55th Edition, September 15, 1966

No hazardous changes.

KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06'N, 119°46'W. Add Castlegar FM code — — — 49°19'N, 117°38'W. Increase terrain elev at lat 48°25'N & long 114°07'W to 4000'–6000' MSL.

LA GRANDE

45th Edition, July 21, 1966

No hazardous changes.

LAKE HURON

41st Edition, May 26, 1966

Add obstn 1110' MSL 44°54'46''N, 79°23'16''W.

LAKE SUPERIOR

44th Edition, August 18, 1966

No hazardous changes.

LAKE OF THE WOODS

39th Edition, August 18, 1966

Delete Cache Bay SPB 48°12'N, 91°01'W.

●LEWISTON

45th Edition, April 28, 1966

Change Pennfield Ridge RBn freq 379 to 388. Delete Lewiston non-federal RBn 44°02'56''N, 70°17'16''W. Add New Gloucester non-federal RBn freq 266 ident GLU class MHW 43°59'13''N, 70°19'29''W. Add obstn 660' MSL 44°35'25''N, 69°38'20''W. Add obstn 734' MSL 43°55'53''N, 66°06'07''W. Add UNICOM Island Pond State arpt 44°47'25''N, 71°49'45''W. Add obstn 1323' MSL 44°39'30''N, 68°36'19''W. Change Yarmouth LFR to RBn 43°54'36''N, 66°06'11''W.

•LINCOLN

55th Edition, Oct. 13, 1966

No hazardous changes.

LITTLE ROCK

50th Edition, July 21, 1966

Delete Fort Smith RBn 35°30''N, 94°24'30''W.

•LOS ANGELES

62nd Edition, August 18, 1966

Correct elev NAS Los Alamitos arpt from 25 to 35. Change obstn elev 454' MSL to 585' MSL 33°51'35''N, 118°20'56''W. Add obstn 3551' MSL 34°55'06''N, 117°22'33''W.

•MIAMI

54th Edition, September 15, 1966

Add obstn 277' MSL 27°26'43''N, 80°24'47'' W. Add UNICOM Barton arpt 27°57'N, 81°47'W. Add Venice non-federal RBn freq 209 ident XVN class MHW 27°04'46''N, 82°26'41''W.

•MILES CITY

46th Edition, Oct. 13, 1966

No hazardous changes.

•MILWAUKEE

60th Edition, May 26, 1966

Delete ctl twr freq 342 DuPage Co. Delete ctl twr freq 396 Kellog. Delete Carm arpt 43°46'N, 88°01'W. Twr comsnd Rock County arpt freqs 121.2, 122.7R. Add obstn 851' MSL 43°41'49''N, 83°58'48''W. Add UNICOM Cottonwood arpt 42°18'N, 89°08'W. Delete Air City arpt 42°41'N, 87°53'W. Add Sheboygan RBn freq 254 ident SBM class MHW 43°45'44''N, 87°51'03''W. Add obstn 891' MSL 42°06'15''N, 86°28'19''W. Add obstn 1340' MSL 43°01'31''N, 89°23'46''W. Add obstn 1126' MSL 42°27'34'N, 89°01'44'W. Relocate RBn 42°54'32.6''N, 87°-53'38.5''W to 42°54'32.6''N, 88°02'27.4''W change name Milwaukee to Mitchell ident MKE to GM class SABH to H/SAB/LOM. Add Alma RBn freq 329 ident AMN class MHW 43°23'08''N, 84°40'27''W. Add UNICOM Greater Rockford arpt 42°12'N, 89°06'W. Add obstn 1232' MSL 43°48'56''N, 88°50'47''W.

MINOT

44th Edition, September 15, 1966

No hazardous changes.

MOBILE

59th Edition, July 21, 1966

Delete DF Cairns AAF ctl twr 31°16'N, 85°43'W. Add obstn 641' MSL 31°56'33''N, 87°04'11''W. Delete Brantley arpt 31°36'02''N, 86°13'50''W. Add obstn 525' MSL 31°48'45''N, 89°03'21''W. Add obstn 405' MSL 31°16'-50''N, 89°51'12''W.

MT. SHASTA

55th Edition, May 26,1966

Add UNICOM Garberville arpt 40°05'N, 123°49'W. Add UNICOM Fall River Mills arpt 41°01'N, 122°26'W.

MT. WHITNEY

57th Edition, June 23, 1966

Add obstn 2355' MSL 36°12'52''N, 115°09'18''W. Add UNICOM Gallaher arpt 36°16'N, 119°18'W.

•NASHVILLE

57th Edition, July 21, 1966

Change ctl twr freq 229.6 to 241.0 Godman AAF. Add UNICOM Gallatin Mun 36°23'N, 86°25'W. Delete Gee arpt 36°31'N, 89°43'W. Add obstn 1280' MSL 37°01'11''N, 85°53'38''W.

•NEW ORLEANS

60th Edition, September 15, 1966

Add obstn 417' MSL 30°01'39''N, 92°17'17''W. Add obstn 411' MSL 29°58'44'N, 92°09'15''W.

•NEW YORK

65th Edition, Oct. 13, 1966

Add obstn 1549' MSL at 41°25'23''N, 72°57'06''W.

•NORFOLK

59th Edition, September 15, 1966

Add UNICOM Emporia arpt 36°41'N, 77°29'W. Add SW extn to Newburn Ctl Zone 4 mi wide to a point 8 mi SW of EWN-VOR.

OKLAHOMA CITY

59th Edition, April 28, 1966

Add obstn 2770' MSL 35°25'25''N, 99°50'30''W. Delete aband apt symbol & type 34°14'N, 98°44'W. Add obstn 1357' MSL 34°23'28''N, 97°59'36''W. Delete Cowan arpt 34°29'N, 101°49'W. Delete Todd arpt 34°38'N, 101°57'W. Delete Savage arpt 34°20'N, 101°31'W. Delete Tri-State arpt 35°08'N, 101°48'W. Delete ctl twr freq 119.2 Clinton Sherman AFB 35°20'N, 99°12'W. Add obstn 1881' MSL 35°23'14''N, 97°29'56''W. Add UNICOM Wilbarger arpt 34°14'N, 99°17'W. Add UNICOM Holdenville arpt 35°05'N, 96°25''W.

•ORLANDO

55th Edition, April 28, 1966

Add obstn 375' MSL 28°36'50''N, 82°12'56''W. Add obstn 435' MSL 28°48'40''N, 81°52'35''W. Delete Bruce arpt 28°43'N, 81°04'13''W. Add obstn 417' MSL 28°-00'49''N, 80°36'08''W. Delete Spuce Creek arpt 29°-04'40''N, 81°02'41''W. Add UNICOM Vandenberg arpt 28°00'50''N, 82°20'40''W. Add obstn 346' MSL 29°17'-47''N, 81°50'08''W. Delete Green Airpark 28°17'53''N, 80°43'08''W. Add obstn 393' MSL 29°00'30''N, 82°27'00''W.

•PHOENIX

55th Edition, July 21, 1966

Delete Rainy Mesa arpt 33°33'N, 108°38'W. Add obstn 3614' MSL 33°04'07"N, 111°03'16"W. Change ctl twr freq 257.8 to 256.9 Phoenix Sky Harbor. Add obstn 5071 MSL 32°45'48"N, 110°56'13"W.

•POCATELLO

52nd Edition, Oct. 13, 1966

No hazardous changes.

•PORTLAND

55th Edition, July 21, 1966

Add UNICOM Hood River County arpt 45°40'N, 121°-32'W. Add ctl zone 5 mi radius Hillsboro arpt 45°32'15" N, 122°56'30"W with extsn 8 mi S of arpt. See NOTAMs/AIM for CZ efctv hrs. Add standard South alternate V448S awy from Portland to Yakima. Delete Carson arpt 45°43'N, 121°49'W.

•PRESCOTT

46th Edition, September 15, 1966

Add UNICOM Oak Creek Canyon arpt 34°51'N, 111°47'W. Delete UNICOM Cottonwood Clemenceau arpt 34°44'N, 112°02'W.

RAPID CITY

44th Edition, June 23, 1966

Delete awy bcn site #2B 44°33'06"N, 106°42'28"W.

RENO

46th Edition, June 23,1966

Ctl twr decmsnd Stead AFB fld clsd. Add area R-4813 from 39°51'N, 118°38'W to 40°01'N, 118°15'W to 39°-52'36"N, 118°01'W thence via 15 mi arc centered at 39°52'36"N, 118°20'27"W to 39°45'50"N, 118°38'W. (Contact Lovelock FSS) Add area R-4812 5 mi either side of aline 39°10'N, 118°37'30"W and 39°13"N, 118°-12'42"W bounded on the E by R-4804 on the W by R-4810 (Contact Lovelock FSS).

ROSWELL

55th Edition, June 23, 1966

Add UNICOM Midland Airpark 32°02'N, 102°06'W. Add obstn 864' MSL 33°41'33"N, 95°23'45"W.

•SACRAMENTO

56th Edition, June 23, 1966

Ctl twr decomsnd Stead AFB fld clsd. Add UNICOM Garberville arpt 40°05'N, 123°49'W. Add Travis RBn freq 400 ident SU class MHW 38°20'10"N, 121°49'18"W. Delete abandoned arpt 38°25'N, 122°45'W.

•SALINA

55th Edition, September 15, 1966

Delete Wilkens arpt 38°34'N, 98°22'W. Add UNICOM Salina arpt 38°47'N, 97°39'W.

SALT LAKE CITY

53rd Edition, May 26, 1966

Change freq 111.8 to 115.2 Meeker VOR.

•SAN ANTONIO

58th Edition, June 23, 1966

Add obstn 636' MSL 29°59'33"N, 95°28'23"W. Add UNICOM Hondo muni arpt 29°21'N, 99°10'W. Delete Arrowhead Ranch arpt 28°15'36"N, 98°33'54"W. Delete Dial Ranch arpt 28°39'40"N, 97°35'57"W. Delete Mangum arpt 28°58'30"N, 95°54'55"W. Add obstn 390' MSL 29°16'46"N, 95°44'26"W. Add obstn 455' MSL 28°56'-44"N, 95°20'12"W. Delete Riverview arpt 29°16'N, 98°36'00"W. Delete San Antonio RBn 29°34'N, 98°28'W. Add UNICOM Spaceland Airpark 29°30'N, 95°09'W. Delete Bergmann 29°50'38"N, 98°46'57"W.

SAN DIEGO

60th Edition, August 18, 1966

Change obstn elev 454' MSL to 585' MSL 33°51'35"N, 118°20'56"W. Add obstn elev 139' MSL 33°14'37"N, 115°30'36"W. Add obstn elev 295' MSL 33°28'41"N, 115°51'43"W. Change ctl twr freq 142.74 to 126.2 NAAS Ream.

SAN FRANCISCO

59th Edition, June 23, 1966

Delete Blackwells arpt 35°37'N, 119°53'W. Add obstn 530' MSL 36°48'18"N, 121°46'50"W.

SAVANNAH

60th Edition, September 15, 1966

No hazardous changes.

•SEATTLE

59th Edition, June 23, 1966

Add ctl zone 5 mi radius Kitsap Co arpt 47°29'35"N, 122°45'35"W with extsn 8 mi SW of RBn. See NOTAMs/AIM for CZ efctv hrs. Add standard South alternate V448S awy from Portland to Yakima. Change ctl twr freq 119.1 to 119.7 at Yakima.

SHREVEPORT

51st Edition, June 23, 1966

Add obstn 856' MSL 33°09'35"N, 94°56'12"W. Change ctl twr freq 119.7 to 118.9 at Gregg County. Delete Arneson arpt 32°26'N, 91°19'W. Add ctl zone 5 mi radius Greenville Muni arpt 33°29'05"N, 90°59'06"W with extsn 8.5 mi N of VOR efctv 0700 to 2000 hrs daily. Delete Mulinax arpt 35°56'N, 95°16'W. Add obstn 462' MSL 33°39'34"N, 91°21'48"W. Add obstn 864' MSL 33°41'33"N, 95°23'45"W.

•SIOUX CITY

43rd Edition, May 26, 1966

Add UNICOM Lamars arpt 42°47'N, 96°12'W. Delete Kampe arpt 42°04'N, 97°54'W.

•SPOKANE

53rd Edition, June 23, 1966

Ctl twr decomsnd Larson AFB 47°12'34"N, 119°18'51" W. Delete Larson RBn 47°06'57"N, 119°16'24"W. Delete Larson FM code — — 47°06'57"N, 119°16'24"W. Delete Larson (AF) VOR 47°05'41"N, 119°15'41"W. Add ctl zone 5 mi radius Pullman-Moscow Regional arpt 46°40'25"N, 117°13'30"W with extsn 8 mi SW of VOR. see NOTAMs/AIM for CZ efctv hrs. Add Moses Lake RBn freq 408 ident MW class MHW 47°06'57"N, 119°16'24"W. Add Moses Lake VOR freq 117.0 ident MHW class LVOR mag var 21°E 47°05'42"N, 119°15'41"W. Twr comsnd Grant County arpt freq 118.1 257.8 47°06'57"N, 119°18'51"W. Add Pullman VOR freq 109.0 ident PUW class L/BVOR mag var 20°E 46°40'25"N, 117°13'30"W.

TRINIDAD

44th Edition, September 15, 1966

No hazardous changes.

•TULSA

58th Edition, Oct. 13, 1966

On some printings of Tulsa Sectional, 58th Edition dated Oct. 13, 1966, a 1200' floor was inadvertently shown within the Walnut Ridge Control Zone. Please disregard.

•TWIN CITIES

52nd Edition, April 28, 1966

Add obstn 1835' MSL 45°55'39"N, 90°27'42"W. Delete ctl twr freq 257 at Crystal. Change Minneapolis RBn ident MSP to MS class SABH to H/SAB/LOM 44°51'28.1"N, 93°08'54.5"W to 44°49'33.1N, 93°05'27.6"W. Add Marshfield RBn freq 391 ident MFI class MHW 44°38'28"N, 90°11'14"W. Add New Ulm RBn freq 272 ident ULM class MHW 44°19'25"N, 94°30'02"W. Delete Robbel arpt 45°56'N, 90°28'W. Add 700' Transition area 5 mi radius Marshfield Mun arpt 44°38'10"N, 90°11'20"W with extsn 8 mi SW of arpt. Add 1200' Transition area 5 mi NW and 8 mi SE of 216°T bearing from Marshfield Mun arpt to 12 mi SW. Add obstn 1475' MSL Stack 45°01'56"N, 92°46'35"W.

•WASHINGTON

64th Edition, Oct. 13, 1966

No hazardous changes.

•WICHITA

56th Edition, June 23, 1966

Delete Vance RBn 36°16'N, 97°55'W. Add UNICOM Sunray arpt 36°02'N, 101°50'W. Add UNICOM Ulysess arpt 37°36'N, 101°22'W. Add UNICOM Piper arpt 37°45'N, 97°13'W. Add Perryton non-federal RBn freq 206 ident PYX class MHW 36°24'46"N, 100°44'17"W. Delete Fincham arpt 37°49'N, 98°°46'W. Relocate Wichita RBn from 37°38'53"N, 97°16'19"W to 37°34'42"N, 97°27'20"W. Change ident ICT to IC class SABH to H-SAB.

WILLISTON

40th Edition, July 21, 1966

No hazardous changes.

•WINSTON-SALEM

58th Edition, Oct. 13, 1966

No hazardous changes.

YELLOWSTONE PARK

44th Edition, September 15, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

GADSDEN VORTAC: DME unusable beyond 20 nmi 140–195°.

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000′ MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000′ MSL 190–290°: below 7000′ MSL 320-345° and 005–035°; below 8000′ MSL 035–060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500′ MSL; 175–240°, 090–145° below 10,500′ MSL 040–090°, below 14,000′ MSL 360–040°.

FLAGSTAFF VOR: VOR unusable at 40 nmi below 18,000′ MSL 325°–340°; below 22,000′ MSL 340°–360°; below 18,000′ MSL 360°–025°; below 11,500′ 025°–305°; below 12,500′ MSL 305°–325°.

GRAND CANYON VOR: VOR unusable beyond 40 nmi below 10,000′ MSL 177°–210°; below 11,500′ MSL 210°–336°; below 13,000′ MSL 336°–346°; below 11,500′ 346°–120°; below 11,500′ MSL 153°–177°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000′ MSL beyond 40 nmi from 195–230°.

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000′ MSL 152–170° and 200–210° and beyond 6 nmi below 7000′ MSL 078–125°.

PRESCOTT VORTAC: VORTAC unusable beyond 40 nmi below 11,000′ MSL 145–155° and 175–200°; below 17,000′ MSL 200–225°; below 12,000′ MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 145-190°; below 14,000′ 190–255°; below 10,500′ MSL 350–145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL from 320–045°; below 16,500′ MSL 045–065°; below 15,000′ MSL 065–080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL 280–300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346–311° beyond 20 nmi below 3,500′ MSL; 312–345° beyond 15 nmi below 5,500′ MSL and beyond 30 nmi below 7,500′ MSL. MSL.

CALIFORNIA

AVENAL VORTAC: DME unusable beyond 40 nmi below 3000′ MSL 320–065° below 4000′ MSL, 065–095° below 4500′ MSL, 095–125° below 8500′ MSL, 125–170° below 7500′ MSL, 170–198° below 7000′ MSL, 195–230° below 8000′ MSL, 230–305°.

BAKERSFIELD VORTAC: VOR portion 121° rad V165 to Arvin Int unusable below 4000′.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000′ MSL 324–018° below 9000′ MSL 189–217°, below 10,000′ MSL 175–189°, below 15,000′ MSL 277–324°.

BIG SUR VORTAC: DME unusable beyond 40 nmi below 8000′ MSL 085–120° below 7000′ MSL 120–130° below 6000′ MSL 290–320° and below 9000′ MSL 320–085°.

●CRESCENT CITY VORTAC: DME restricted 040–180° below 12,000′ at 40 nmi and 180–220° below 4000′ at 40 nmi.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000′ and below 280–290° and 14,000′ and below 290–350°

FORTUNA VORTAC: DME unusable below 9500′ MSL 050–070° and below 5000′ MSL 150–200° beyond 40 nmi.

FRESNO VORTAC: DME unusable below 4000′ MSL 200–250°.

GLENDALE RBN: H facil unusable beyond 2 mi from 320–065° and from 130–235°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 265–290° and 15,000′ MSL 290–310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 265–310° below 10,500′ MSL 350–040°: below 5500′ MSL 125–155°; below 10,500′ MSL 155-170° below 14,500′ MSL 170–219°; below 31,000′ MSL 219–250°; below 25,000′ MSL 250–265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL from 135–180°, below 7000′ MSL from 268–290°. V–201 011° rad beyond 20 nmi below 9000′ MSL. DME unusable beyond 40 nmi below 3500′ MSL from 180–210°.

NAPA VORTAC: DME unusable beyond 40 nmi below 7500′ from 280–045°.

NEEDLES VORTAC: VORTAC unusable below 11,500′ MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: DME unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005-060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SAN LUIS OBISPO VORTAC: VOR unusable below 7000′ MSL beyond 7 nmi from 300–090°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unusable beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265–280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115–125°, beyond 15 mi from 125–135°, beyond 15 mi from 225–235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

CROSS CITY VOR: VOR unusable beyond 16 nmi below 2500′ MSL on the 149° rad.

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

TALLAHASSEE VOR: VOR unusable above 17,500′ MSL on 287 rad and beyond 50 mi on 090 rad.

GEORGIA

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 138–156°, 170–218°, 250–255°, 285–315°, and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115–210° below 2500′ MSL.

IOWA

ESTHERVILLE VOR: VOR unusable 220–240° beyond 15 nmi.

WATERLOO VORTAC: DME unusable beyond 15 nmi 335–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 288° rad beyond 34 mi above 18,000′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable in the following areas: 010–045° beyond 65 mi 45,000′ MSL, 000–026° beyond 10 mi below 18,000′ MSL, 026–045° beyond 22 mi below 3500′ MSL, 026–045° beyond 26 mi below 4500′ MSL, 026–045° beyond 28 mi below 5500′ MSL, 026–045° beyond 32 mi below 7500′ MSL, 045–360° beyond 26 mi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL.

MICHIGAN

ALPENA VORTAC: DME unusable 260° to 280° below 4000′ MSL beyond 30 nmi.

ESCANABA VOR: VOR unusable from 140–170°, 190–235°, 315–335° beyond 10 NM airway V7 Escanaba 216° rad change over point 10 NM SW Escanaba VOR.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–095° beyond 15 nmi below 6000′ MSL. 090–103° beyond 30 nmi below 4000′ 104–190° beyond 25 nmi below 3000′; 190–200° below 3000′; 200–330° beyond 25 nmi below 3000′; 331–036° beyond 25 nmi below 3500′.

MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335–350° beyond 30 mi below 2,900′ MSL. DME unusable 200–290° beyond 30 nmi below 4000′ MSL, from 290350° beyond 30 nmi below 4500′ MSL, from 350–050° beyond 30 nmi below 4000′ MSL.

SAWYER VOR: VOR unusable 090–110° and 270–310°.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000′ MSL within 30 mi; 242–255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185–265° beyond 20 mi below 3,000′ MSL; 265–185° beyond 22 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3.500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252–260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000′ MSL.

BUTTE VORTAC: VORTAC unusable following areas: 005–120° beyond 20 nmi below 10,000′ MSL; and 120–325° beyond 20 nmi below 11,000 MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250–030° beyond 25 mi below 10,500′ MSL, 030–250° beyond 25 mi below 12,000′ MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235–245° beyond 10 mi below 6,800′ MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360–065° beyond 20 mi below 10,000′ MSL; 065–090° beyond 25 mi below 11,000′ MSL; 110–120° beyond 20 mi below 16,000′ MSL; 120–240° beyond 20 mi below 10,000′ MSL; 240–320° beyond 25 mi below 10,000′ MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000′ MSL.

MALMSTROM VOR: VOR unusable 250–280° beyond 15 nmi below 7000′ MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345–060° beyond 15 mi; 060–095° beyond 31 mi below 12,000′ MSL; 095-165° beyond 20 mi below 10,000′ MSL; 165–270° beyond 20 mi below 12,000′ MSL; 285–315° beyond 20 mi below 12,000′ MSL; 315–345° beyond 20 mi; VOR below 11,000′ MSL DME below 14,000′ MSL. Possible momentary VOR flag activity on V-2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360–040° beyond 30 mi below 14,500′ MSL; 040–055° beyond 30 mi below 12,000′ MSL; 120–160° beyond 30 mi below 14,500′ MSL; 215–230° beyond 20 mi below 14,500′ MSL; 230–285° beyond 35 mi below 14,500′ MSL; 285–360° beyond 30 mi below 13,500′ MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36–55 mi below 3,600′ MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285°.

BEATTY VORTAC: VOR restricted below 8000′ beyond 27 nmi, 060–360°; below 10,000′ beyond 10 nmi, 360–060°.

COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced comerage. DME unusable beyond 15 nmi below 14,000′ MSL 065–075°; below 17,000′ MSL 150–235°; below 16,000′ MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 nmi 260–290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240–320°; below 14,000′ MSL 170–220° and 320–340°; below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010–120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,500′ MSL from 220° to 255°, below 14,500′ MSL from 255° to 270°, below 16,000′ MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000′ MSL from 055 to 100°; 14,000′ MSL from 100 to 110°; 17,000′ MSL from 110 to 135°; 16,000′ MSL from 285 to 340°.

•**RENO RBN**: H facility unusable 030–140° beyond 10 nmi, 140–250° beyond 25 nmi, 250–030° beyond 20 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000′. DME unusable below 14,500′ beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500′ MSL beyond 40 nmi from 020–075° and 220–235°.

SPARKS RBN: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH VORTAC: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000′ MSL 005–030°; below 22,500, 185–210°; below 15,000, 335–350°; and below 12,000′, 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000′.

LEBANON VOR : VOR unusable 110–115° beyond 35 mi below 6,900′ MSL.

NEW JERSEY

ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1500′ MSL.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000′ MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000′ MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000′ MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500′ MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000′ MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000′ MSL; 001–025° beyond 20 nmi below 13,300′ MSL; 150–175° beyond 30 nmi below 10,500′ MSL; 176–210° beyond 20 nmi below 10,500′ MSL; 240–265° beyond 35 nmi below 10,700′ MSL; unusable 001–010°.

•**SANTA FE VORTAC**: VORTAC unusable 015–030° beyond 30 mi below 14,600′ MSL.

NEW YORK

ALBANY VORTAC: VOR unusable 115–135° beyond 10 mi.

BINGHAMPTON RBN: Erratic ADF action 4–13 mi SSE of facility at 3,500′ MSL.

CANARSIE VOR: VOR unusable 060–095° beyond 15 mi below 4,000′ MSL.

DEER PARK VORTAC: VOR unusable following areas: 070–180° beyond 35 mi below 1,700′ MSL; 180–240° beyond 30 mi below 1,700′ MSL; 240–350° beyond 25

mi below 2,200′ MSL; and 350–040° beyond 30 mi below 2,200′ MSL.

DUNKIRK VOR: VOR unusable 120–180° beyond 22 mi below 4,000′ MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500′ MSL in following areas: 115–140° beyond 35 mi; 140–160° beyond 30 mi; 160–180° beyond 35 mi; 190–210° beyond 30 mi; and 210–215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305–315° beyond 35 mi below 7,000′; 315–350° beyond 30 mi below 8,000′.

HAMPTON VORTAC: DME unusable following areas: 280–325° beyond 35 mi below 1,700′ MSL; and 325–355° beyond 30 mi below 2,000′ MSL.

HUGUENOT VORTAC: VOR unusable 210–230° beyond 20 mi below 6,500′ MSL.

ITHACA VOR: VOR unusable 360–150° beyond 25 mi below 3,800′ MSL.

KENNEDY VORTAC: VOR unusable below 1,500′ MSL in the following areas: 015–030° beyond 30 mi; 030–045° beyond 26 mi; 060–075° beyond 24 mi; 075–100° beyond 30 mi; 100–150° beyond 28 mi; 150–165° beyond 26 mi; 165–215° beyond 30 mi; 215–270° beyond 26 mi; and 350–015° beyond 35 mi. VOR unusable below 2,000′ MSL in following areas: 045–060° beyond 24 mi; 270–340° beyond 26 mi; and 340–350° beyond 30 mi. DME unusable within 9 nmi of VORTAC.

KINGSTON VOR: VOR unusable 045–050° beyond 35 mi below 4,300′ MSL and 070–140° beyond 30 mi below 3,400′ MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015–025° beyond 20 mi below 1,900′ MSL; 025–045° beyond 35 mi below 2,700′ MSL; 065–075° beyond 30 mi below 1,700′ MSL; 075–135° beyond 25 mi below 1,700′ MSL; 135–145° beyond 35 mi below 1,700′ MSL; 165–205° beyond 15 mi below 1,700′ MSL; 205–215° beyond 35 mi below 1,700′ MSL; 215–220° beyond 30 mi below 1,700′ MSL; 220–230° beyond 25 mi below 1,700′ MSL; 230–240° beyond 30 mi below 1,700′ MSL; 240–250° beyond 20 mi below 1,700′ MSL; 250–260° beyond 10 mi below 2,500′ MSL; 260–270° beyond 20 mi below 1,700′ MSL; 270–285° beyond 25 mi below 1,800′ MSL; 285–295° beyond 30 mi below 2,700′ MSL; 295–305° beyond 35 mi below 2,700′ MSL; 315–325° beyond 35 mi below 3,200′ MSL; 325–005° beyond 25 mi below 2,700′ MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260–270° beyond 35 mi below 6,000′ MSL.

ROCHESTER VOR: VOR unusable 045–065° beyond 12 mi.

SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360–015° below 5000′ MSL; 015–025° below 4500′ MSL; 025–100° below 5000′ MSL; 100–165° below 9000′ MSL; 165–180° below 7000′ MSL; 180–190° below 6500′ MSL; 190–200° below 7000′ MSL; 200–220° below 6000′ MSL; 220–240° below 5000′ MSL; 240–295° below 5500′ MSL; 295–305° below 7000′ MSL; 305–360° below 4500′ MSL.

NORTH CAROLINA

● CHARLOTTE VORTAC: VOR unusable 010°–050°.

ELIZABETH CITY VOR: VOR unusable 026–042° and 085–100° all altitudes; 276–312° below 5000′ MSL. Use Franklin VOR 130° radial for V-290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500′.

GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290–320° and 100–145°.

GREENSBORO VORTAC: VOR unusable 350–010° beyond 30 mi.

NORTH DAKOTA

● DICKINSON VORTAC: VOR unusable 090–120° beyond 40 mi btn FL 145 and FL 310 GTF Center RADAR service available.

OHIO

AKRON VORTAC: VOR unusable 030–080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500′ MSL.

BELLAIRE VORTAC: VOR unusable 325–345° below 6000′ MSL.

BRIGGS VORTAC: VOR unusable 330–010°, 120–145° and 305–325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033–070°, 085–135°, 155–225°, 250–280° and 295–023°.

STRONGSVILLE VOR: VOR unusable 080–200° beyond 35 nmi.

● YOUNGSTOWN VORTAC: VORTAC unusable beyond 30 nmi from 140–180°.

OREGON

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000′ MSL 020–085°; 18,000′ MSL 085–120°; 12,000′ MSL 190–340°; 14,000′ MSL 340–020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 600′ MSL 150–170°; 6000′ MSL 320–350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000′.

REDMOND VORTAC: VORTAC unusable below 11,000′ MSL 190–210′; below 13,000′ MSL 210–240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020–060° beyond 26 mi below 3,500′ MSL.

● ALTOONA VOR: VOR unusable 070–100°, 235–260°, 290–350°.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VORTAC: VOR unusable 070–085° beyond 10 nmi.

CLARION VOR: VOR unusable 215–223°.

● ELLWOOD CITY VORTAC: VOR unusable 310–335°.

HARRISBURG VORTAC: VOR unusable in following areas: 105–140° beyond 26 mi; 140–165° beyond 30 mi; and 195–230° beyond 28 mi. DME unusable 325–360° beyond 30 mi; and 360–025° beyond 35 mi.

IMPERIAL VORTAC: VOR unusable 150–170° below 8,000′ MSL and 345–360° below 14,500′ MSL.

LANCASTER VOR: VOR unusable in following areas: 190–220° beyond 25 mi below 3,000′ MSL; 220–250° beyond 25 mi below 4,000′ MSL; 320–340° beyond 15 mi below 5,000′ MSL; 320–340° beyond 25 mi below 6,000′ MSL.

LATROBE VOR: VOR unusable beyond 20 mi.

SELINSGROVE VORTAC: VOR unusable in following areas: 105–115° beyond 26 mi below 3,000′ MSL; 210–230° beyond 35 mi below 2,500′ MSL; and 250–285° beyond 26 mi below 3,400′ MSL. DME unusable 100–115° beyond 30 mi below 3,000′ MSL; 115–170° beyond 35 mi below 2,900′ MSL; 190–300° beyond 35 mi below 3,500′ MSL.

YARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250–265° beyond 17 mi; 265–280° beyond 10 mi; and 280–290° beyond 17 mi. DME unusable 225–275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

PROVIDENCE VORTAC: VOR and DME unusable 220–310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

ALLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

FLORENCE VORTAC: VOR unusable 360–010° beyond 20 mi below 5000′ MSL.

MYRTLE BEACH VOR: VOR unusable 220–245° beyond 15 nmi below 2500′ MSL; 350–015° beyond 10 nmi below 5000′ MSL.

TEXAS

AMARILLO VORTAC: DME unusable 110–235° beyond 15 NM below 7000′ MSL.

AUSTIN VORTAC: VOR unusable 260–320° beyond 35 mi below 3,500′ MSL.

EL PASO VORTAC: DME unusable 265–300′ beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085–210° beyond 35 mi below 2,500′ MSL.

SALT FLAT VORTAC: VORTAC unusable 031–049° beyond 30 NM below 15,000′ MSL.

UTAH

CEDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi 090–125° and beyond 35 nmi 125–150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040–080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330–005° and below 13,500′ MSL beyond 40 nmi from 170–200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180–220°; below 12,000′ MSL 280–310°; below 11,000′ MSL 310–330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025–115°, 30 nmi, 235–330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360–055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010–035°; below 16,000′ MSL 035–050°; below 15,000′ MSL 275–285°; below 14,000′ MSL 285–295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010–020°; below 20,000′ MSL 020–030°; below 23,000′ MSL 030–060°; below 24,000′ MSL 060–080°; below 19,000′ MSL 080–095°; below 17,000′ MSL 095–125°; below 16,000′ MSL 125–140°; below 16,000′ MSL 195–210°; below 10,000′ MSL 280–290°; below 16,000′ MSL 350–010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220–260°.

VERMONT

BURLINGTON VOR: VOR unusable 080–155° beyond 30 mi below 9,000′.

MONTPELLER VOR: VOR unusable 205–280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230–270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360–010° beyond 5 nmi, 010–020° beyond 10 nmi, 020–030° beyond 20 nmi, 030–040° beyond 10 nmi, 040–060° beyond 20 nmi, 190–210° beyond 5 nmi, 230–240° beyond 20 nmi, 240–300° beyond 5 nmi, 310–330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050–075° beyond 30 mi; 075–095° beyond 20 mi; 105–120° beyond 35 mi; and 165–215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355–010° beyond 18 nmi below MEA 030–070° beyond 20 nmi below MEA 170–190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215–250° beyond 8 mi below 1,800′ MSL and 215–270° between 14,500–18,000′ MSL.

LINDEN VORTAC: DME unusable 140–180° beyond 25 mi below 3,500′ MSL and 180–225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110–220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 286–360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130–150°, 4500′ MSL and 150–290°. 4000′ MSL. VOR intermittent roughness may be observed on V–23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RBN: H facil unusable 100–130° below 6500′ MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280°. VOR 348° rad unusable below 4500′ VOR intermittent roughness may be observed on V287, 148° rad below 7000′ from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270°. Coverage within R–6715 from 270–320° not flt checked.

PORT ANGEL8S VOR: VOR coverage 40 nmi; 220–110° at 7000′; 110–140° at 14,500′; 140–150° at 20,500′; 150–170 °at 29,000′; 170–190° at 20,500; 190–220° at 16,000′.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000′ MSL from 158–165° beyond 20 nmi below 12,000′ MSL from 305–355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000′ MSL and beyond 50 nmi below 18,000′ MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000′, 355–020° and 148–176°; below 7500′ from 130–150°; below 10,500′ from 020–060° and 110–130°; below 12,700′ from 065–110°.

WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000′ MSL 000–020° beyond 30 nmi below 20,000′ MSL 020–075° beyond 40 nmi below 14,000′ MSL 075–090° below 18,000′ MSL 090–190° below 19,000′ MSL 190–240°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325–350° beyond 20 mi below 5,000′ MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100–150° and 230–060° beyond 20 mi below 3,300′ MSL.

TIMMERMAN VOR: VOR unusable 300–310° beyond 35 mi below 3,400′ MSL.

WAUSAU VORTAC: DME unusable 300–310° beyond 30 nmi below 3000′ MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion on V–85 20–25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000′ MSL 160–175°; below 15,000′ MSL 175–200° and below 16,500′ MSL 200–230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Aberdeen, S.D.: 301°; over apch end rnwy 30; 1700′.

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom Lake; 2800′. Alternate for lgt acft 099°; 9 NM clt twr and bcn; 2800′.

Alexander, La. (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Alliance, Nebr.: 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

● **Athens, Ga.:** 025°; 11.5 NM, over red brick bldg inside tfc circle at crossroads in Danielsville; 2000′.

Augusta, Ga. (Bush Fld): 140°; directly over No. 17 of rnwy 17; 1200′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Battle Creek, Mich.: 262°; 11 mi from VORTAC over power house stacks 1 mi E of Comstock, Mich.; 2000′.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16–34; 1000′ MSL.

Bemidji, Minn: 131°; over apch end rnwy 13; 1800′.

Big Spring, Tex: 190°; 11.7 mi, over the rdo bcn; 3600′.

Billings, Mont: 073°; over int of rnwys 22–27; 4600′.

● **Blackwater, Mo.:** 321°; 17.5 NM, over Marshall VORTAC bldg; 2000′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Blytheville, Ark.: 094°; 5.8 mi, over hangar adj to Admin Bldg; 1300′.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brainerd, Minn.: 294° over centerline apch end rnwy 30; 1800′.

● **Britton, Tex:** 285°: 13.5 mi, int hwy 81S and Farm Road #787 NW arpt; 1700′.

Brownwood, Tex.: 169°; 6.2 mi over arpt bcn; 2600′.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

● **Burlington, Iowa:** 296°; 11.4 NM, over rdo twr; 2500′.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500′.

●**Cape Girardeau, Mo.:** 032°; 3.2 NM, over smoke stack NNE; 1700′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21–25–30; 6300′.

●**Centralia, Ill.** (Muni): 027°; 6.1 NM, at apch end of rnwy 36; 2000′.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 NM; 9000′.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.; 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

VOR RECEIVER CHECK POINTS

Crestview, Fla. 106°; over rot bcn twr; 300′.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over metal hangar; 2900′.

Cut Bank, Mont: 311°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 and 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

● **Des Moines, Iowa:** 293°; 5.5 NM, over grain elev Cummings, Iowa; 2500′.

Devils Lake, N. Dak.: 178°; 7.2 nmi over 2087′ MSL rdo twr; 2600′.

Dublin, Ga. (Muni): 069°; 7.8 NM, over SW end NE/SW rnwy; 1400′.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin Fld): 004°; 6 NM, over white water twr in Smackover; 1500′.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

● **El Paso, Tex:** 232°; 4.2 mi, over water twr, 2 mi SE of arpt; 5000′.

El Toro MCAS, Calif (Orange City): 254°; over int rnwys. 19R and midfld txwys; 200′.

● **Emporia, Kans.:** 047°; 8.5 NM, over schoolhouse in Neosho Rapids, Kans: 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evansville, Ind. (Dress Memorial): 056°; 13 miles over intersection E/W and NE/SW runways; 2000′.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

● **Farmington, Mo.:** 195°; 7 NM, over center of Open Air Theatre NE of the town of Fredericktown; 2300′.

Fayetteville, Ark.: 183°; 14.3 mi, white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; 8 NM, over water twr at Parktown, N.C.; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

Flint, Mich (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

● **Flippin, Ark:** 051°; 5.0 mi, dual water twr at Mountain Home; 1900′.

● **Fort Leonard Wood, Mo.** (Forney AAF): 351°; 16 NM, water twr N side E/W hwy: 2600′.

Fort Smith, Ark.: 233°; 5.2 NM, water tank at N edge of arpt; 1500′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800′.

● **Fulton Co., Ga.:** 261°; 11.5 NM, over water twr tank in Douglasville, Ga; 2500′.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100′.

Galveston, Tex.: 110°; arpt terminal bldg.

● **Garden City, Kans.:** 100°; 19 NM; at RR tracks and Main St. crossing in town of Cimarron, Kans; 3800′.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

● **Goodland, Kans.** (Muni): 083°; 16 NM, over water twr NE edge of Town of Brewster, Kans; 4000′.

● **Gordonsville, Va.:** 305°; over lclzr ant at apch end of rnwy 21, Charlottesville-Abermarle Arpt., 16 NM from GVE-VOR; 2500′.

● **Grand Island, Nebr.:** 142°; 5.5 NM; over smoke stack; 3100′.

Grand Junction, Colo. (Walker Fld): 059°; int rnwys 22 and 29; 6500′.

● **Grants, N. Mex:** 295°; 12.7 mi, over FSS adj to rnwy; 7000′.

Greeley, Colo. (Weld Co. Arpt): GLL 205°; 5.8 NM, over Trml Bldg; 6100′.

● **Hallsville, Mo.;** 225°; 14 NM; Int of E/W and N/S rnwys over Columbia Muni Arpt, Mo; 2700′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

● **Hastings, Nebr.:** 266°; 11 NM; over RR crossing in center of town of Kenesaw; 3200′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt 10 nmi, 800′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C. (Muni): 225°; 10.2 NM, over end rnwy 24; 2200′.

● **Hill City, Kans.:** 057°; 20 NM; Hill City Arpt bcn lgt; 4200′.

Hobart, Okla.: 353°; 7 mi, centerline of N/S rnwy; 2500′.

● **Hoquaim, Wash.** (Bowerman); 059°; 8.5 NM, W end and center rnwy 6; 1000′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

● **Hutchinson, Kans.:** 033°; 5 NM, apch end rnwy 3 Hutchinson Muni Arpt; 3500′.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Iowa City, Iowa: 019°; over arpt bcn; 2000′.

Jack's Creek, Tenn. (McKellar): 267°; over bcn twr above arpt 27.5 NM; 1500′.

Jackson, Miss. (Hawkins): 189°; over int rnwys 11–29 and 34–16. 10.8 nmi

● **Janesville, Wis.:** 035°; 4.3 mi, over end of rnwy 04; 1800′.

Jefferson City, Mo.: 123°; 9.1 NM over hwy bridge on Osage rvr; 2500′ MSL.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500′.

Kalispell, Mont (Flathead Co. Arpt): 314°; apch end rnwy 9; 4000′.

● **Kearney, Nebr.:** 215°; 4.8 NM, over rdo twr KGFW; 3200′.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

● **Kirksville, Mo.:** 138°; 8.2 NM, over water twr at La Plata, Mo; 2500′.

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

● **Lamoni, Iowa** (Lamoni); 041°; 12 NM, over hwy "Y" 1 NM W of Leon, Iowa; 2200′.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt. 17.0 nmi from HBG VOR, 800′.

Lawrenceville, Va.: 123°; over arpt bcn; 1500′.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

● **Liberal, Kans.:** 056°; 8.5 NM, grain elev along RR track; 3900′.

● **Lincoln, Nebr.:** 082°; 9.8 NM, grain elev Waverly, Nebr; 2500′.

Litchfield, Mich.: 050°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

● **Macon, Ga.** (Muni): 050°; 6.3 NM, rdo twr; 1800′.

● **Malden, Mo.:** 349°; 14.8 NM, RR crossing 0.5 NM E of Dexter, Mo; 1500′.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Manhattan, Kans. (Mun): 062°; 6 nmi over RR bridge SE; 2,500′.

Manitowoc: 162°; over Manitowoc Portland Cement Co. Stack 1.9 mi; 1900′.

● **Marion, Ill.:** 274°; 12 NM, int rnways 6–24 and 18–36 at Southern Arpt; 1500′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

Maxwell, Calif. (Willows-Glen Co. Arpt): 342°; over apch end rnwy 34; 600′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

● **McCook, Nebr.:** 311°; 8.5 NM, over int of rnwys 8 and 12; 3800′.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis.: 134°; 30 nmi over Horlick-Racine arpt; 2100′.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Monore, La.: 025°; 6.25 NM, over watertower 1 NM No. of arpt; 1100′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys: 3500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

Monticello, Ark.: 305°; 5.7 nmi over white water twr; 1500′.

Muncie, Ind.: 179°; 8 nmi, between Cowan and Oakville, Ind.; 2500′ MSL.

Myrtle Beach, S.C. (Crescent Beach Arpt): 238°; 6 mi, over silver water tank; 1100′.

Napa, Calif.: 046°; over arpt bcn; 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi NE of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

● **Neola, Iowa:** 047°; 18.3 NM, over grain elev Harlan, Iowa; 2500′.

● **Neosho, Mo.:** 343°; 19 NM, over center triangle formed by the int of 3 rnwys of Joplin, Mo. Muni Arpt; 2500′.

New Bern, N.C.: 261°; 11 NM, over int of E/W rnwys Oak Grove (navy) arpt; 1100′.

New Orleans, La. (Lakefront Arpt): 081°; over Lakefront twr.

● **Newton, Iowa:** 142°; 8 NM, apch end rnwy 31; 2500′.

● **Norfolk, Nebr.:** 095°; 10.5 NM, over racetrack Stanton, Nebr; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

● **North Platte, Nebr.** (Lee Bird): 083°; 17 NM, over water twr Brady, Nebr; 4000′.

Okmulgee, Okla.: 229°; 6 NM, smoke stack in Phillips refinery yard; 1900′.

● **Omaha, Nebra.** (Eppley Fld): 310°; 10.2 NM, apch end rnwy 32; 2500′.

● **O'Neil, Nebr.:** 117°; 9 NM, at int of E/W road and the RR 1/2 NM SE of Inman, Nebr; 3000′.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 3.5 nmi from VOR.

● **Ottumwa, Iowa** (Muni); 303°; 6.9 NM, int of rnwys 32 and 22. 2500′.

Park Rapids, Minn.: 208°; over northern most of two twrs 5.2 nmi; 2100′.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Co. Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 3300′.

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C. (Southern Pines Arpt): 086°; 9.5 NM, over windsock on top of hangar; 1500′.

Plainview, Tex. (Hale Co.): 024°; 6 NM, int rnwys 4–22 and 12–30; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500′.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450′.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800′.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

Presque Isle, Me. (Loring AFB): 184°; Spragueville LFR site; 2000′.

Princenton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo, Colo. (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 NM NW of arpt; 7300′.

Quitman, Tex.: 241°; 14.5 mi, water tank in town of Alba, Tex.; 1500′.

Rawlings, Wyo. (Muni): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300′.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000′.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

Roberts, Ill.: 074°; over int E/W highway, N/S RR ½ mi N Buckley, Ill; 1600′.

Rochester, Minn.: 024°; int rnwys 13–31 and 2–20 8.5 NM; 3000′.

●**Roswell, N. Mex:** 027°; 4.9 mi, over apch end rnwy 3; 4000′.

●**Russell, Kans.:** 002°; 16 NM, over water twr in center of town of Wilson, Kans; 2900′.

Sacramento, Calif.: 015°; apch end rnwy 02; 100′.

Saginaw, Mich. (Tri-City): 058°; 6.7 mi NE of MBS VOR over hwy int US #10 and I 75; 1700′.

● **St. Joseph, Mo.** (Rosecrans Meml): 167°; 10.7 NM, apch end rnwy 17; 2500′.

● **Salina, Kans.:** 117°; 10 NM, over grain elevator town of Kipp; 2500′.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

Samsville, Ill.:064°; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

Sault Ste. Marie, Mich. (Mun): 336°; int E–W and NW/SE rnwys; 2100′.

Sayre, Okla. (Muni): 175°; 8 mi, over rot bcn; 3000′.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 5 nmi; 5000 MSL.

Shreveport, La. (Downtown): 290°; 10 NM, over white water twr; 1500′.

Shreveport, La. (Greater Shreveport): 175°; 19.3 mi, over Admin Bldg; 1200′.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000′.

Sulphur Springs, Tex.: 223°; 7 mi, over projector booth and snackbar within outdoor movie; 1600′.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over center of segmented circle on Anniston, Ala. Arpt.; 2000′ MSL.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 122°; 5.1 mi, over int rnwys 13–31 and 4–22; 1400′.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

●**Thief River Falls:** 348°; rdo twr NW edge of city; 2500′.

Toccoa, Ga.: 179°; 6 NM, over arpt bcn; 2000′.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S–E/W rnwys; 1600′.

●**Troy, Ill.:** 322°; 11 NM, over int N, S/E, W rnwys at Civic Meml Arpt., Alton, Ill; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

●**Vandalia, Ill.:** 170°; 5.8 NM, centerline at N end N/S rnwy; 1700′.

Vienna, Ga. (Cordele Arpt): 226°; 19 NM, over center of NE/SW rnwy; 1300′.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.

●**Wichita, Kans.** (Muni): 162°; 4.3 NM, apch end rnwy 14; 3300′.

Wichita Falls, Tex.: 011°; 8 NM, at bridge over Red River; 2100′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11: 2600′.

Wilmington, N.C. (New Hanover Co.): 204°; 5.5 NM over wea radar ant on arpt; 1100′.

Wink, Tex. (Winkler Co.): 149°; 5.9 NM, over int rnwys 22 and 13; 3900′.

Winner, S.D. (Mun): 201°; over center of race track 7.8 nmi; 3000′.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C. (Smith-Reynolds): 295° (GSO VORTAC); 13.5 NM, over ctl twr; 2000′.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600′.

Yankton, S.D.: 257°; 7 nmi over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17–35; 400′.

GROUND

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/Muni): 207°; 4.5 mi, lctd 985 SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt.): 002°; 3.2 mi, S end on curve of txwy 50' W approach end rnwy 35 centerline.

Anderson, S.C. (Muni): 039°; 6 NM, on ramp in front of Trml Bldg.

Ardmore, Okla. (Muni): 042°; 9 mi; adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250' from centerline rnwy 13-31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500' from centerline rnwy 4-22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250' from centerline of rnwy 17-35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250' from centerline of rnwy 13-31.

Baltimore, Md. (Friendship Int'l): Lctn #1-293°; centerline of rnwy 10-28 on old runup pad. Lctn #2—290°; 400' N of centerline of rnwy 10-28 on runup pad.

Bartlesville, Okla. (Phillips): 166°; 4 mi, opposite Trml on parallel taxi strip.

Beaumont, Tex. (Jefferson County): 051°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County): 140°; 5.1 mi, ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400' S of ctl twr on S ramp south.

Bismarck, N. Dak: 275°; N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500' in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L-10R and 28R-10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 023°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City): 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex: 334°; 5.8 mi, immediately W of FSS and twr bldg on ramp.

Cedar Rapids, Iowa; 080°; rnwy runup pad apch end rnwy 13.

Chanute, Kans.: 051°; 5.7 NM, apch end rnwy 12.

Chattanooga, Tenn. (Lovell): 332°; 5.1 NM, centerline S txwy a point 175' NE of centerline rnwy 32.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15-33.

Childress, Tex.: 353°; 3.7 mi, int of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp on Easterwood Arpt.

Columbia, S.C. (Metro): 332°; 6 NM E/W txwy (parallels rnwy 10-28).

Columbia, S. C. (Owens Fld): 022°; 7.5 NM compass rose on parking ramp.

Columbus, Ga. (Muscogee Co.): 145°; 7.1 NM pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM-TPA): 300°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; 3.9 mi, SE corner of main ramp.

Dallas, Tex. (Addison): 159°; .75 mi, int of center and parallel txwys.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City Kans.: 150°; 5.3 NM, center of NW end of rnwy 14.

Dothan Arpt, Ala: 334°; on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl): 160°; int of SW ramp and txwy T-2.

Dubuque, Iowa: 334°; on ramp at Trml Bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 3 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld): 329°; 6 mi, Trml ramp at intsxn N/S and ctr txwys.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150' W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): 028°; 5 NM, lctd on txwy leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5-23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198' S of C/L rnwy 10 and 374' N of C/L rnwy 6.

Enid, Okla. (Woodring Fld): 348°; 0.5 mi, ramp W of Trml Bldg.

Erie, Pa. (Erie-Port Erie): 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Admin Bldg.

Florence, S.C.: 235°; 4.3 NM, on txwy W of the end of rnwy 18.

Fort Bening, Ga. (Lawson AAF): Lctn #1-021°; .8 NM, runup area on txwy at apch end of rnwy 20. Lctn #2—130°; 1 NM, runup area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt): 120°; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page): 172°; N side of Trml ramp.

Fort Riley, Kans. (Marshall AAF): 032°; 6.3 NM, on parking ramp adj to radar antenna.

VOR RECEIVER CHECK POINTS

Fort Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex. (Pecos Co.): 116°; 4 mi, on ramp N of Trml.

Frederick, Md. (Mun): 359°; txwy between rnwys near apch end rnwy 23.

Gage, Okla.: 109°; 5.7 mi, int txwys, NW corner of ramp.

● **Gallup, N. Mex.** (Senator Clarke Fld): 050°; 5.2 mi, ctr of txwy in front of Term Bldg.

Goldsboro, N.C. (Seymour Johnson AFB): 280°; .6 NM, run up pad at apch end rnwy 8.

Great Falls, Mont. (Intl): #1-027°; int NE/SW and E/W txwys adjt to apch end rnwy 34; 2.4 mi. #2-027°; on NE/SW txwys 100′ SW rnwy 25; 3.0 mi.

Green Bay, Wis. (Austin-Straubel): 141°; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C. (High Point Arpt): 033°; 3.1 NM, ramp in front of twr.

Greenwood, Miss.: 060°; central taxiway adj to ramp.

Greenwood, S.C. (County): 251°; .7 NM, on txwy apch end of rnwy 9.

Gulfport, Miss.: 098°; 100′ NW of ctl twr.

Harrison, Ark.: 131°; 4.3 mi, int txwy and ramp.

Helena, Mont.: 235°; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County): 030°; 3.5 mi, on runup pad apch end rnwy 3.

Holston Mountain, Tenn.: 282°; on ramp S of Term Bldg.

● **Hoquiam, Wash.** (Bowerman): 059°; W end and center rnwy 6; 1000′.

Hot Springs, Ark. (Meml Fld): 246°; .75 mi, runup pad rnwy 5.

Houston, Tex.: 292°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld): 007°; junction of N/S txwy and rnwy 16-34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 359°; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

Key West, Fla. (Boca Chica): 001°; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l): 127°; NW portion of ramp.

Kinston, N.C. (Stallings): 230°; 3.9 NM, 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga. (Callaway Arpt): 106°; 7 NM, on compass rose at taxi strip int aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City): 053°; center of apch end rnwy 6

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351° last txwy W side apchg rnwy 19.

● **Las Vegas, N. Mex:** 231°; .7 mi, on apron N of FSS bldg.

Lawton, Okla.: 349°; 4.6 mi, int of Trml ramp and S taxi strip.

Little Rock, Ark. (Adams): 315°; 4.5 mi, on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

Longview, Tex. (Gregg Co.): 126°; 2.5 mi, N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 103°; 4.5 mi, runup pad apch end rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen): 026°; mid txwy to rnwy 17-35.

● **Manhattan, Kans.** (Muni): 145°; 0.5 NM, on ramp in front of Trml Bldg.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

● **Marfa, Tex. (Muni):** 314°; 5 NM, int NW/SE and NE/SW txwy, 450 E apch end rnwy 30.

Marianna, Fla.: 310°; ESE end taxiway 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

McAlester, Okla. (Muni): 350°; 2 mi, int ramp and taxi strip.

McAllen, Tex. (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S rnwy. Lctn #2—012°; in front airline trml on gate two loading spot,.

Melbourne, Fla. (Eau Gallie). 145°; 500′ E of Term Bldg.

Meridian, Miss. (Ky): 121°; from run up ramp for rnwy 23.

Midland, Tex. (Air Trml): 178°; 4.3 mi, int txwy C and ramp in front of Trml Bldg.

Miles City, Mont: 036°; on txwy leading to rnwy 30.

Mineral Wells, Tex.: 307°; 4.5 mi, int of txwy and rnwy 31.

Missoula, Mont. (County): 340°; 5′ from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates): 107°; Int of N/S and E/W txwys E of rnwy 18-36. 109.5°; Int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

● **Morgantown, W. Va.:** 337°; on txwy in front of Term Bldg.

Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11-29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX-AMA): 253°; on ramp in front of Admin Bldg.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

● **New Orleans Intl, La.** (Moisant Fld): 235°; perimeter txwy 113′ E of gas truck parking area, 394′ S of E/W txwy, 408′ W of concourse A gate 8, mrkd by yellow and white circle.

Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Ocala, Fla. (Mun): 139°; on ramp near trml bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bldg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Pahokee, Fla.: 344°; overrun rnwy 35.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.

Paris, Tex. (Cox Fld): 348°; 5.6 mi, int of N/S and E/W rnwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Muni): 133°; 5.5 mi, on ramp adj to center txwy..

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S and E/W txwys of arpt.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; 4 mi int of ctr txwy and N/S rnwy.

● **Ponca City, Okla.:** 101°; 3.0 mi, taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg; 2.9 nmi.

● **Quincy, Ill.** (Quincy-Bladwin Fld): 030°; 7.4 NM, at int of NE/SW txwy N of Trml Bldg.

Raleigh, N.C.: 244°; 1 NM, end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10-28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1-19 and 305′ from centerline of rnwy 7-25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn-around E end rnwy 25; 1.9 nmi Lctn #2—261°; in center of turn-around W end rnwy 7; 3.1 nmi.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 261°; 4.3 NM, right 3 rnwy 33, marker.

Rome, Ga. (Russeell Fld): 348°; Intersection of taxiways 200′ S of the terminal bldg.

St. Paul, Minn., (Downtown Arpt): 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

● **St. Petersburg-Clearwater Intl, Fla:** 268°; circle lctd N side of W end of ramp, 500′ SE of Saint Aircraft Bldg.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis): 236°; 2.2 mi, E edge of ramp front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Sant.a Rosa Calif. (Sonoma Co. Arpt): 083.5°; SW corner main ramp.

● **Sante Fe, N. Mex.** (New Muni): 334°; 4.7 NM, at Junction main int txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N trml bldg.

● **Scottsbluff, Nebr.** (Muni): 240°; 5.1 NM, NE edge ramp opposite Trml Bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200′ N of N edge of trml ramp.

Spartanburg, S.C. (Meml): 192°; 7.3 NM, at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

● **Springfield Mo.:** 191°; 6.8 NM, at bend in N/S txwy 400′ S of N end of taxi strip.

Stillwater, Okla. (Searcy Arpt): 173°; 4 mi, NW ramp and taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

● **Topeka, Kans.** (Muni): 213°; 5.4 NM, N/S txwy W of tetrahedron.

Tri-City, Tenn.: HMV 282°; 13.2 NM on ramp S of Trml Bldg.

● **Truth or Consequences, N. Mex.:** 157°; 2.8 mi, on NE/SW txwy 200′ NW of wind cone.

● **Tucumcari, N. Mex.:** Lctn #1—255°; .5 mi; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; .7 mi, over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

● **Vichy, Mo.** (Rolla Natl Arpt): 241°; 2.9 NM, on txwy W of NE/SW rnwy.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex. (Muni): 132°; 3.5 mi, int of ramp and N taxi strip.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 051°; 1.7 mi, taxi strip at parking ramp adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 80′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

● **Tucumcari, N. Mex:** Lctn #1—255°; .5 mi; over square metal plate lctd on hangar ramp paved area. Lctn #2—226°; .7 mi. over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Wichita Falls, Tex. (Muni): 096°; 5.2 mi, NE edge of muni ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; vcnty of base operator ramp.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300′ from centerline rnwy 14–32.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1966

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL)
FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	X	
Balboa	FAA	X	
Cold Bay	FAA	X	
Dallas	BNF	X	
Guam	FAA	X	
Honolulu	ARINC	X	X
Miami	ARINC	X	X
New York	ARINC	X	X
New Orleans	ARINC	X	X
Okinawa	ARINC	X	X
Pago Pago	FAA	X	
Point Barrow	FAA	X	
San Francisco	ARINC	X	X
Shemya	FAA	X	
San Juan	ARINC	X	X
Seattle	ARINC	X	X
Wake Island	FAA	X	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard flields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

TRAFFIC INFORMATION ON MERGING RADAR TARGETS

Effective July 31, 1966, ATC facilities will implement a traffic information service on merging radar targets to radar identified scheduled air carrier aircraft. Traffic information will be issued to a radar identified scheduled air carrier aircraft when his radar target is likely to merge with another observed radar target, unless the observed traffic is known to be separated by more than the minimum vertical separation for his altitude. This service will not be provided to aircraft while they are holding in a holding pattern. Pilots should expect other traffic to be in a holding pattern with approved separation. Such traffic information will be issued routinely unless the controller is engaged in the provision of separation to the extent that it is not possible to provide this traffic information.

A vector to avoid merging targets will be provided only at the pilot's request and then *only* on a workload permitting basis. The vector, when provided, will not necessarily provide approved radar separation (three or five miles). The controller will attempt to provide vectors only to the extent that the targets do not touch.

Standard phraseologies for issuing traffic information and vectors will be used.

July 1966

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows: Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-36S, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-36S, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

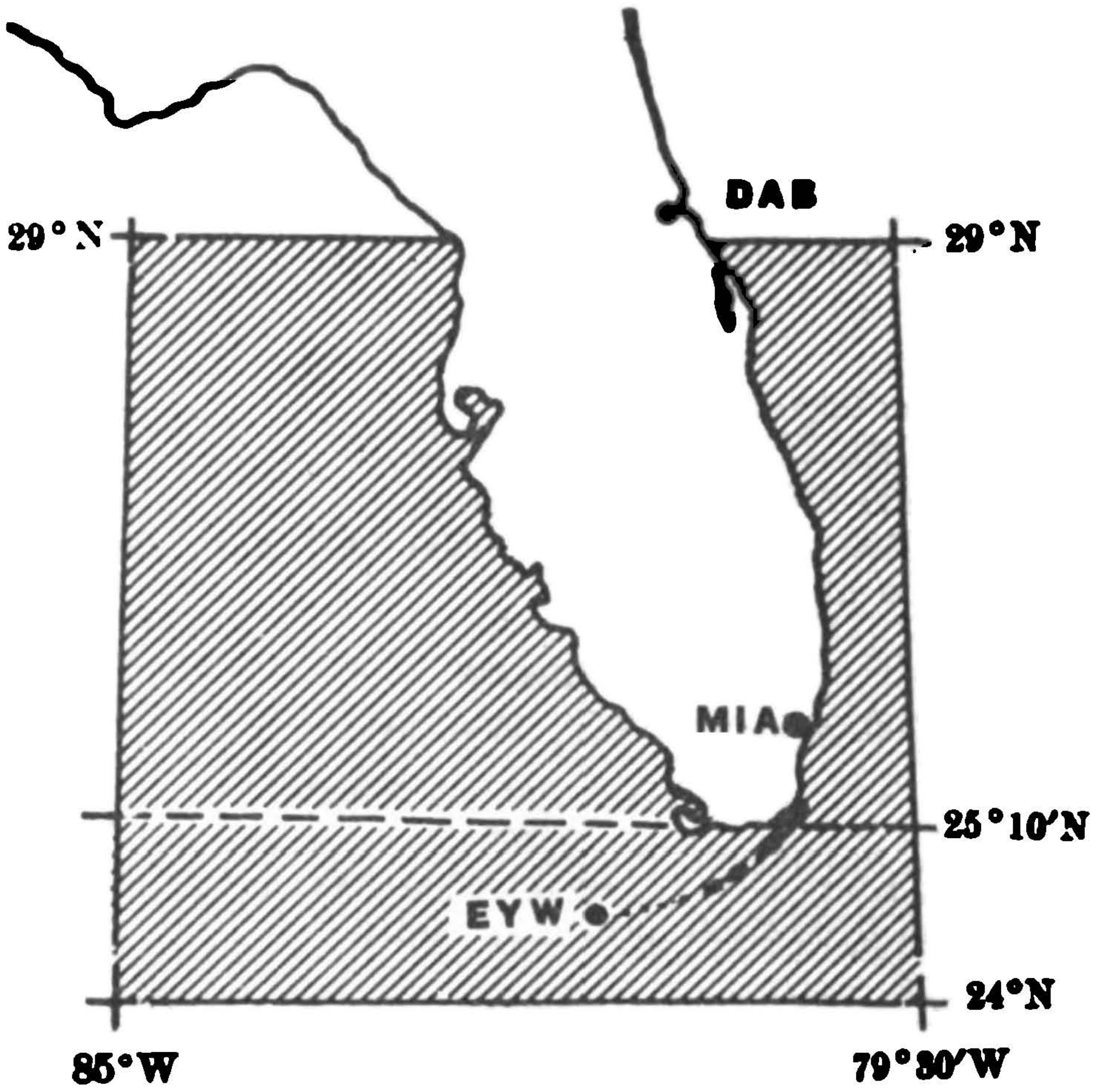
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30'W long. to 24°N lat., 79°30' W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10'N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10'N and 29°00'N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

PART-TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

St. Petersburg, Albert Whitted Arpt: 0600–2200 local time daily.

Sarasota: 0600–2200 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

Davenport: Efctv Oct. 13, 1966. 0700–1900 local time daily.

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

Benton Harbor: 0730–2200 local time daily.

Escanaba: 0730–2200.

Iron Mountain: 0800–2145 local time daily.

Ironwood: 0630–2030 local time daily.

Menominee: 0800–2130 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainard: 0730–2030 local time daily.

Fairmont: 0715–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

Winona: 0900–1845 local time Mon–Fri and 0900–1630 local time Sat and Sun.

Worthington: 0800–1845 local time daily.

MISSOURI

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

● **Kearney:** 0700–1900 local time daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730–2100 local time daily.

NORTH DAKOTA

Devils Lake: 0600–2300 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

Hillsboro: 0600–2200 local time daily.

SOUTH CAROLINA

Myrtle Beach/Crescent Beach: 0800–2130 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

● **Killeen, Robert Gray AAF:** 0730–1630 local time Mon thru Fri and 0730–1130 local time Sat.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630– 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

● **Bremerton:** 0900–1700 local time daily. Mon thru Fri.

Moses Lake, Grant Co. Arpt.: 0700–2300 local time daily.

Pullman: 0700–2400 local time daily.

● **Tacoma Industrial Arpt:** 0600–2100 local time Mon thru Fri and 1300–2100 local time Sat and Sun.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

Janesville: 0600–2300 local time Sun thru Fri and 0600–2200 local time Sat.

Manitowoc: 0800–2200 local time daily.

● **Rhinelander:** 0700–2015 local time daily.

Stevens Point: 0700–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

•g. To clear a departing aircraft via the route filed, the controller will state "CLEAR AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information. The phrase "CLEARED AS FILED" is only intended as a clearance to proceed via the route filed in the flight plan and does not constitute authorization to maintain an altitude other than that specifically stated by ATC.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

DME at ILS Locations

The FAA has installed Distance Measuring Equipment (DME) at selected ILS glide slope locations for the purpose of determining the operational advantages of DME when used in conjunction with ILS. DME capabilities have been incorporated in the ILS instrument approach procedure at the following locations:

Airport	*Runway*
John F. Kennedy International, New York	04R
Albany County, New York	19
Minneapolis—St. Paul International, Minnesota	11R
Dulles International, Washington, D.C.	01R
St. Joseph County, South Bend, Indiana	09, 27
Cleveland—Hopkins International, Ohio	05R, 23L
Reno, Nevada	34, 16
Lindbergh Field, San Diego, California	09, 27

An operational evaluation will be conducted by the FAA at these locations commencing during the month of July, 1966. Questionnaires will be made available to pilot personnel to obtain user comments during the evaluation period. Pilots conducting operations into these airports with DME equipped aircraft are encouraged to utilize the DME capability of the ILS facilities and to report their findings and recommendations by submitting completed questionnaires to the FAA.

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO—O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

The part-time manned facilities, which transmit and receive on 123.6 and 121.5 (emergency), the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
●Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0700–2100.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Concord, New Hampshire)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany, New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

October 1965

EVALUATION OF AIRPORT TRAFFIC LIGHT SYSTEM WASHINGTON NATIONAL AIRPORT

The Airport Traffic Light System with 14 lights/signs has been installed at Washington National Airport. Beginning September 8, 1966, for a 45 day period this system will be evaluated to determine the feasibility of utilizing a Light System in the control of airport ground traffic. It will be used strictly as a back up for the verbal clearance issued by Ground Control or the Local Controller.

Light/sign signals have been installed at the end of Runway/s 3/36/33, at the entrance of these runways, and at most of the taxiway intersections affecting these runways in a North operation. The light/sign signal is strictly a backup to one of the following appropriate verbal clearances: (1) Cleared to cross (runway); (2) Taxi into position and hold; and (3) Cleared for take-off. These lights operate on the same principle as a traffic light; green light to go, and red light to hold. The operating concept provides that the traffic lights/signs will normally be showing red (HOLD). This will ensure that the active runways are always protected by a red light. When the Controller wishes to clear an aircraft to cross a runway or to clear an aircraft for take-off, in addition to a verbal clearance, the pilot will receive a green light (GO). The use of a green take-off light will automatically change all crossing lights on the active runway to red (HOLD). A safety lock out feature prohibits the use of a green crossing light until the take-off light has returned to red.

THERE WILL BE NO CLEARANCES ISSUED SOLELY BY THE LIGHT SYSTEM. THIS SYSTEM IS STRICTLY A BACKUP TO, AND ONLY CONFIRMS CONTROL INSTRUCTIONS DELIVERED BY RADIO COMMUNICATIONS. IF A PILOT RECEIVES A LIGHT SIGNAL WHICH CONFLICTS WITH THE VERBAL CLEARANCE, VERIFY IT WITH THE CONTROLLER.

The lights are rectangular in shape, approximately 47″ by 15″. When either cleared for take-off or cleared to cross a runway, the pilot will see the word "GO" in large white block letters on a green background. If not cleared he will see the word "HOLD" in white on a red background. When the system is inoperative a blank side of the light will be presented in black. These lights are located to the pilots left at points of entry to runways and ramp areas and can readily be seen from the cockpit.

A pilot questionnaire regarding the Light System will be made available. Your comments and opinions regarding the advantages or disadvantages of the Airport Traffic Light System are solicited.

1. This is an evaluation project only. It will be conducted in a North operation only.
2. No procedural or regularly changes are introduced. Tower will terminate the evaluation any time the normal flow of traffic is directly affected.
3. Lights will be operated only as a visual confirmation to verbal control clearance.
4. Lights do not pertain to landing aircraft or aircraft in the air.
5. No clearance will be issued solely by light signals.
6. For the purpose of the evaluation check a conflicting light against the verbal clearance.

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for the aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

May 1966

USE OF VASI

(Visual Approach Slope Indicator)

FAR 91.87(d)(3) requires that an airplane approaching to land on a runway at an airport with operating control tower and served by a VASI shall maintain an altitude at or above the glide slope (visual) until a lower altitude is necessary for a safe landing.

•MEA, MCA, MOCA, MRA, MAA

Effective immediately: (1) MOCA V-145, Florence INT, N.Y. to ART 2400 ft vice 1400 ft. (2) Following Flight Procedures established: V-241, Pine Mtn INT, Ga. to Woodbury INT, Ga. MEA 3400 ft; Woodbury INT to ATL MEA 2500 ft, MOCA 2200 ft. V-241E, Pine Mtn INT to Shirley INT, Ga. MEA 3400 ft, Shirley INT to Brooks INT, Ga. MEA 2800 ft, MOCA 2300 ft. Estab Woodbury INT, Ga. 197 Mrad ATL/090 M rad LGC. Estab Shirley INT, Ga. 173 M rad ATL/040 M rad CSG. (3) V-13 MAA 10,000 ft applies to Barnum INT, Minn. only vice GTG to DLH.

•LOCATION IDENTIFIERS

Location identifiers are assigned as follows:

OXD ----- Oxford, Ohio, Miami University Airport.
OXD ----- Oxford, Ohio, Oxford Rbn.
OOA ----- Oskaloosa, Iowa, Municipal Airport
OOA ----- Oskaloosa, Iowa, Oskaloosa Rbn.

VFR AIRPORT TRAFFIC PATTERNS

(In accordance with FAR Part 91.89(c))

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
Woodring Arpt.	35, 2, 30	Right turns	1600′ MSL
Enid, Okla.	20, 17, 12	Left turns	1600′ MSL

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis.*
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

1. **Airspace North of V18 airway from the surface to 3000 feet MSL.**
2. **Airspace South of V18 airway from the surface to 2000 feet MSL.**
3. **All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   - a. Airports within the Atlanta TRSA:
     - (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   - b. Airports underlying the Atlanta TRSA:
     - (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   - c. Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
   - d. Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V-18 should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V-18 should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.

In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	''	Northwest
City of Rosewell and	''	North
Chattahoochee River	''	
Dekalb-Peachtree Airport	''	Northeast
Stone Mountain	''	Northeast
Gunn Field	''	Northeast
City of Conyers	''	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	''	Southwest
Chattahoochee River	''	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

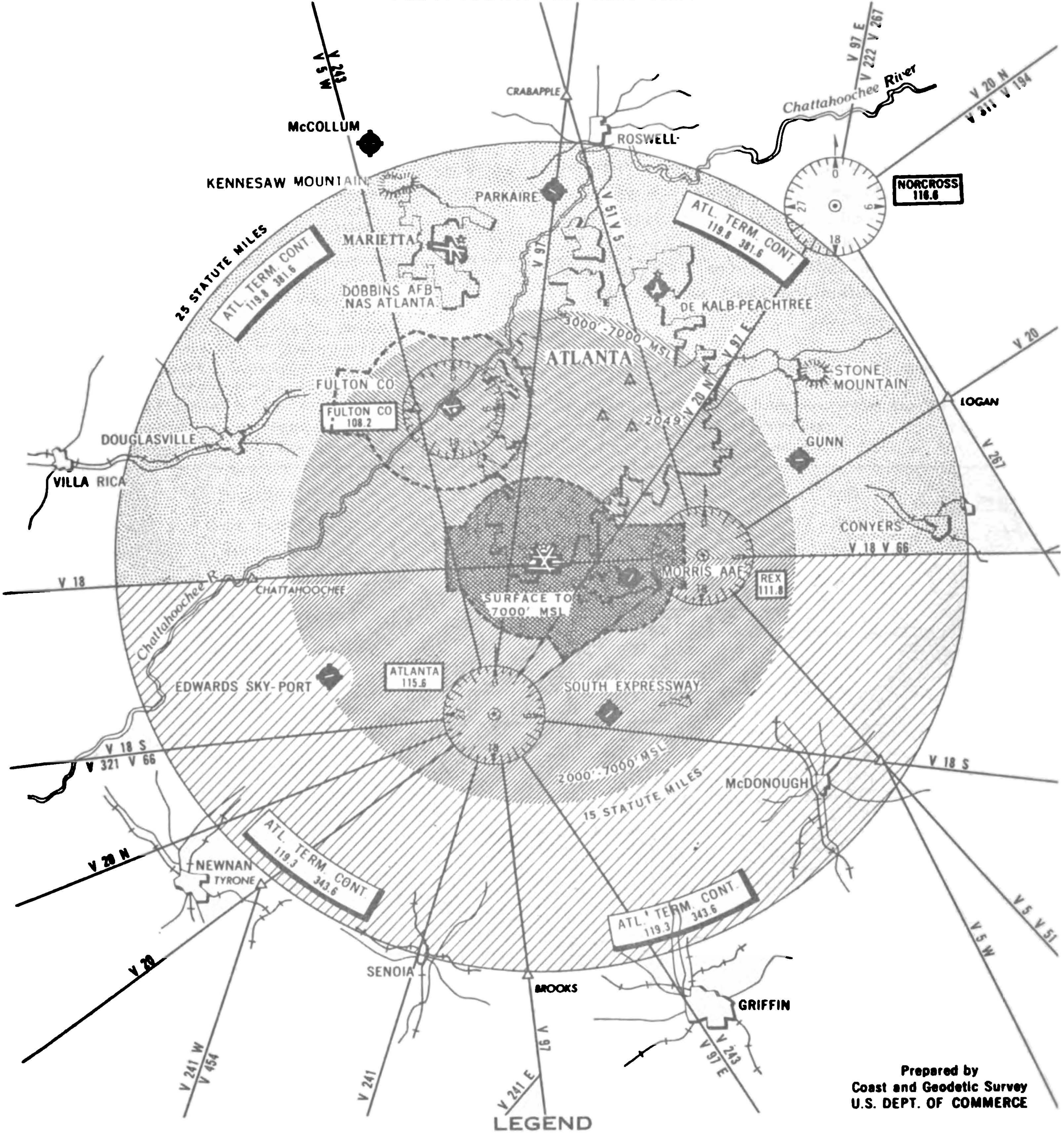
   NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024′ MSL


V 243
V 5 W
McCOLLUM
CRABAPPLE
ROSWELL
V 97 E
V 222 V 267
Chattahoochee River
V 20 N
V 311 V 194
KENNESAW MOUNTAIN
PARKAIRE
V 51 V 5
V 97
NORCROSS 116.6
25 STATUTE MILES
ATL. TERM. CONT. 119.8 381.6
MARIETTA
ATL. TERM. CONT. 119.8 381.6
DOBBINS AFB NAS ATLANTA
DE KALB-PEACHTREE
3000′-7000′ MSL
ATLANTA
V 97 E
V 20
STONE MOUNTAIN
FULTON CO
FULTON CO 108.2
2049
V 20 N
LOGAN
DOUGLASVILLE
GUNN
V 267
VILLA RICA
CONYERS
V 18 V 66
V 18
CHATTAHOOCHEE
MORRIS AAF
REX 111.8
SURFACE TO 7000′ MSL
Chattahoochee R.
ATLANTA 115.6
EDWARDS SKY-PORT
SOUTH EXPRESSWAY
V 18 S
V 321 V 66
V 18 S
2000′-7000′ MSL
McDONOUGH
15 STATUTE MILES
V 20 N
ATL. TERM. CONT. 119.3 343.6
NEWNAN
TYRONE
ATL. TERM. CONT. 119.3 343.6
V 5 V 51
V 20
V 5 W
SENOIA
BROOKS
GRIFFIN
V 241 W
V 454
V 241
V 241 E
V 97
V 97 E
V 243

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA ▨ 2000′-7000′ ■ SURFACE TO 7000′ ▩ 3000′-7000′

CONTACT OR CALL-UP AREAS

North of V 18 ░

South of V 18 ▨

GEORGIA

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.
6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia Rivers. From takeoff climb to 1500′, reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000′ altitude. Stay over the River until passing through 3000′ altitude unless otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1-AND 2-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 1500′ prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 2000′ prior to turning oncourse unless instructed to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.

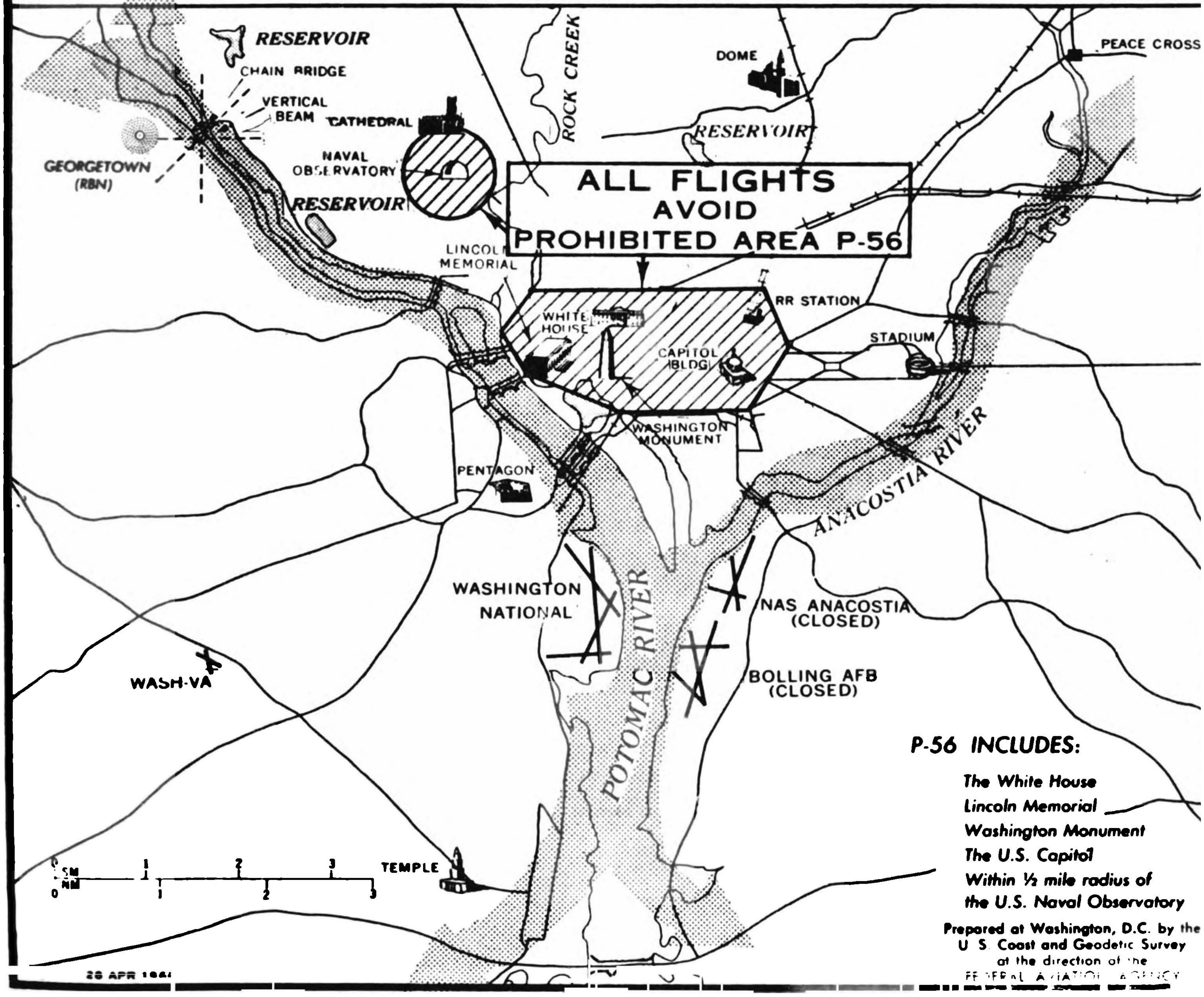
Remain at 2500′ or higher while en route to final.

When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.

A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.

On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.

If VFR go around is required, climb over the River to 2500′, enter traffic pattern for subsequent approach.


RESERVOIR
CHAIN BRIDGE
VERTICAL BEAM
CATHEDRAL
NAVAL OBSERVATORY
GEORGETOWN (RBN)
RESERVOIR
ROCK CREEK
DOME
RESERVOIR
PEACE CROSS
ALL FLIGHTS AVOID PROHIBITED AREA P-56
LINCOLN MEMORIAL
WHITE HOUSE
RR STATION
CAPITOL BLDG
STADIUM
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
NAS ANACOSTIA (CLOSED)
POTOMAC RIVER
BOLLING AFB (CLOSED)
WASH-VA
0 SM 1 2 3
0 NM 1 2 3
TEMPLE
28 APR 1964

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of
the U.S. Naval Observatory

Prepared at Washington, D.C. by the
U.S. Coast and Geodetic Survey
at the direction of the
FEDERAL AVIATION AGENCY

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. IFR Flights—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. VFR Flights:

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	**Location**
City of Modesto	West–Northwest
Crows Landing (NAS)	West
City of Gustine	West–Southwest
City of Los Banos	South–Southwest
City of Dos Palos	South
City of Chowchilla	East–Southeast
City of Madera	East–Southeast
City of Mariposa	East–Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

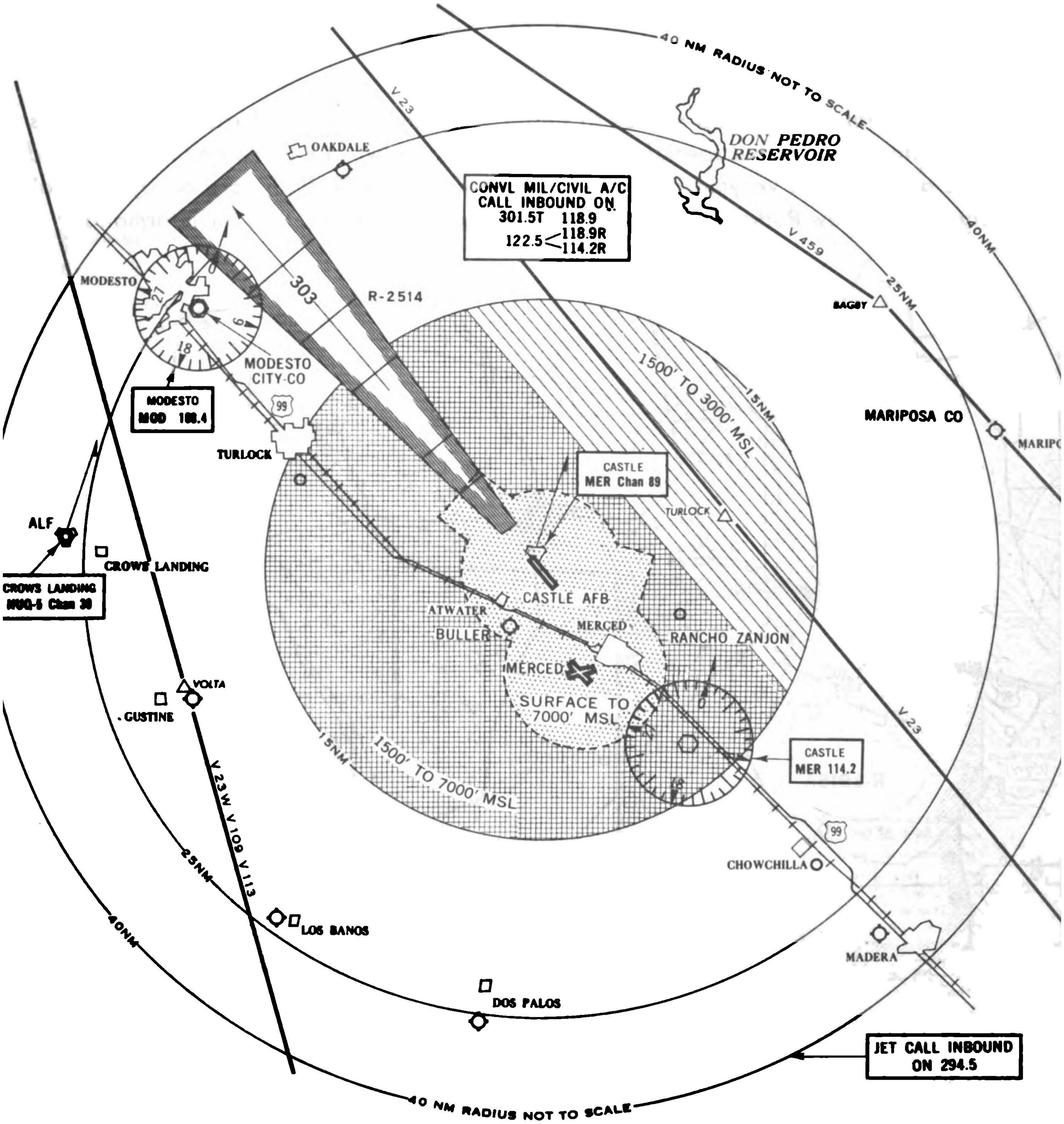
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188' MSL


40 NM RADIUS NOT TO SCALE
V 23
V 459
DON PEDRO RESERVOIR
OAKDALE
CONVL MIL/CIVIL A/C CALL INBOUND ON 301.5T 118.9 122.5<118.9R 114.2R
40NM
25NM
BAGBY
MODESTO
27
9
18
303
R-2514
MODESTO CITY-CO
MODESTO MOD 108.4
99
TURLOCK
1500' TO 3000' MSL
15NM
MARIPOSA CO
MARIPOSA
CASTLE MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING NUQ-5 Chan 30
CASTLE AFB
ATWATER
BULLER
MERCED
MERCED
RANCHO ZANJON
SURFACE TO 7000' MSL
VOLTA
GUSTINE
15NM
1500' TO 7000' MSL
CASTLE MER 114.2
V 23
V 23W V 109 V 113
25NM
99
CHOWCHILLA
LOS BANOS
40NM
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA

░ SURFACE TO 7000'	▨ 1500' TO 3000'	▦ 1500' TO 7000'

CONTACT OR CALL-UP AREAS CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

16 SEP 1965

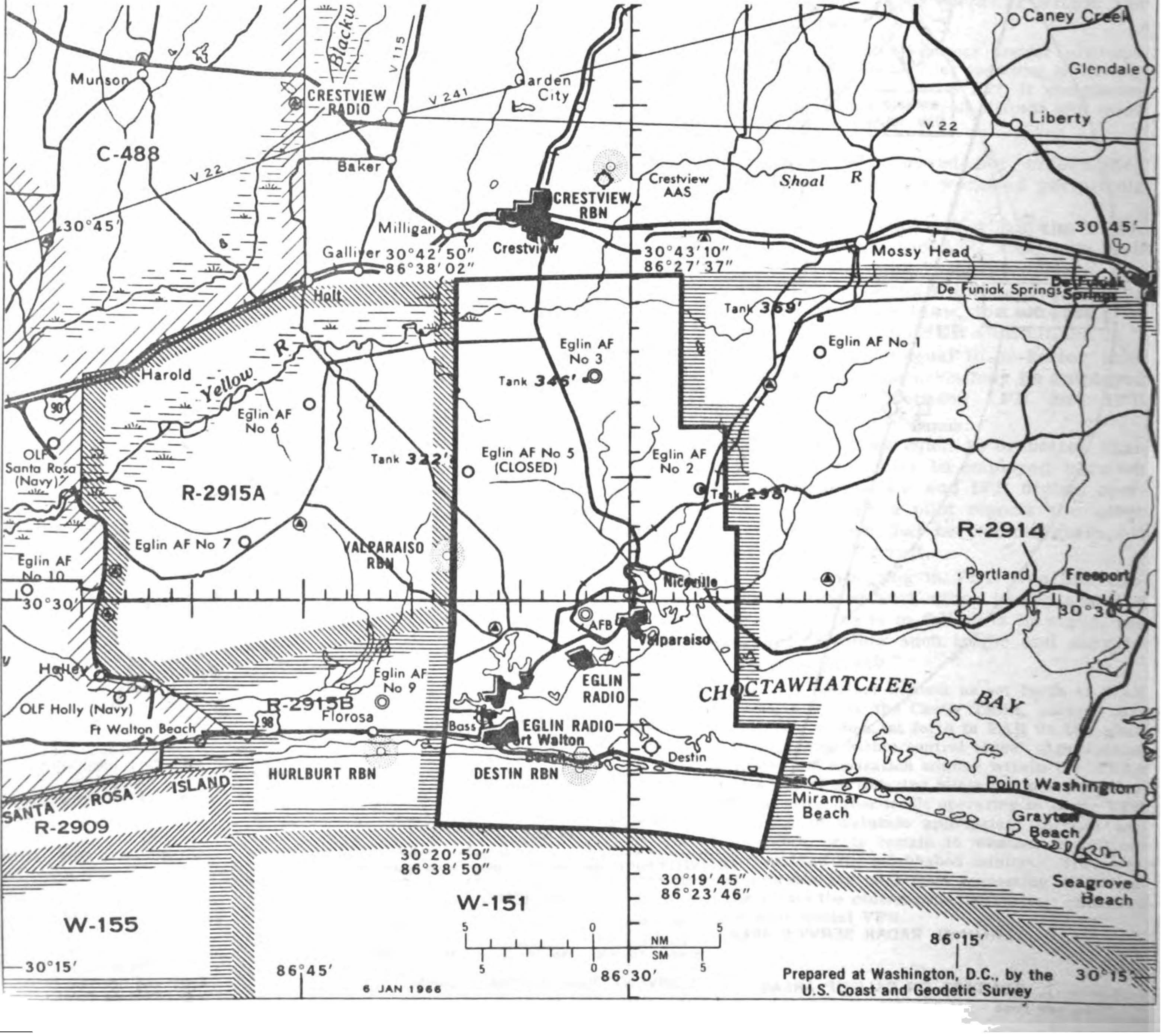
Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

86°45′ 86°15′

VALPARAISO, FLORIDA, TERMINAL AREA

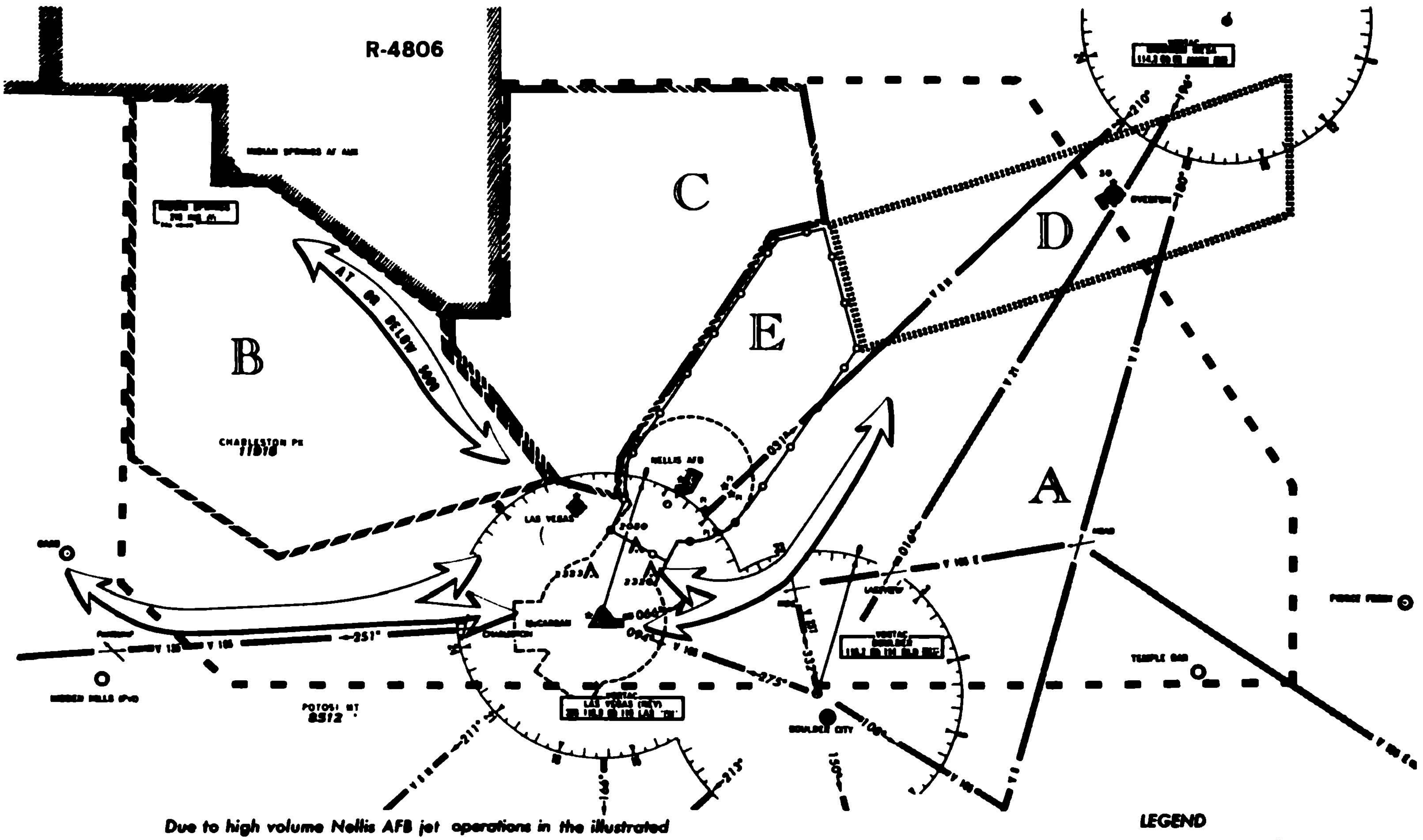
SPECIAL AIR TRAFFIC RULES
(VFR OR VFR CONDITIONS)

A special rule in effect sunrise to sunset, Monday through Saturday requires pilots to obtain information about special activities operating between R-2914 and R-2915A and B. These activities use varying altitudes but altitudes for VFR flight are always available. Contact Crestview Radio (122.1,123.6,126.7) or Eglin RAPCON (119.3) for information.


Munson
C-488
CRESTVIEW RADIO
V 241
V 115
Blackwater
Garden City
V 22
Baker
Milligan
Galliver 30°42′50″ 86°38′02″
CRESTVIEW RBN
Crestview
Crestview AAS
30°43′10″ 86°27′37″
Shoal R
Mossy Head
Caney Creek
Glendale
Liberty
30°45′
De Funiak Springs
Holt
Harold
Yellow R
90
Eglin AF No 6
Eglin AF No 3
Tank 346′
Tank 369′
Eglin AF No 1
OLF Santa Rosa (Navy)
R-2915A
Tank 322′
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 298′
R-2914
Eglin AF No 7
VALPARAISO RBN
Eglin AF No 10
30°30′
Niceville
Portland
Freeport
AFB
Valparaiso
Holley
Eglin AF No 9
EGLIN RADIO
CHOCTAWHATCHEE BAY
OLF Holly (Navy)
R-2915B
Florosa
98
Ft Walton Beach
Bass
EGLIN RADIO
Fort Walton Beach
Destin
SANTA ROSA ISLAND
HURLBURT RBN
DESTIN RBN
Miramar Beach
Point Washington
Grayton Beach
R-2909
30°20′50″ 86°38′50″
30°19′45″ 86°23′46″
Seagrove Beach
W-151
W-155
NM
SM
5 0 5
86°15′
30°15′
86°45′
86°30′
6 JAN 1966

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA


R-4806
C
B
D
E
A
AT OR BELOW 8000
CHARLESTON PK 11918
NELLIS AFB
LAS VEGAS
McCARRAN
2080
2333
2330
064°
094°
031°
016°
251°
275°
337°
211°
164°
215°
150°
108°
V 105
LAKEVIEW
VORTAC BOULDER
BOULDER CITY
VORTAC LAS VEGAS (NEV)
POTOSI MT 8512
TEMPLE BAR
PIERCE FERRY
MORMON MESA

Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. *a. Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   - ● *Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Mormon Mesa Vortac for flight information.*

   b. Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarron Field or Las Vegas Air Terminal.

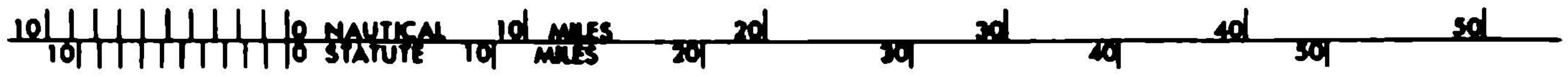
LEGEND

Nellis AFB based jet aircraft VFR departure and arrival areas. Altitudes are Mean Sea Level

A ▬ ▬ ▬ FL 230
B ▰▰▰▰ 5,500 to FL 230
C ▬▬⋀⋀⋀▬▬ Surface to FL 230
D ıııııııııııııı 8,000 to 9,000
E o——o——o Surface to 9,000 incl.

Recommended itinerant VFR routes ⇐⇒

Base And Airspace Compiled From 56th Edition Of Mt Whitney And 61st Edition Of Los Angeles Sectional Aeronautical Charts


10 0 NAUTICAL 10 MILES 20 30 40 50
10 0 STATUTE 10 MILES 20 30 40 50

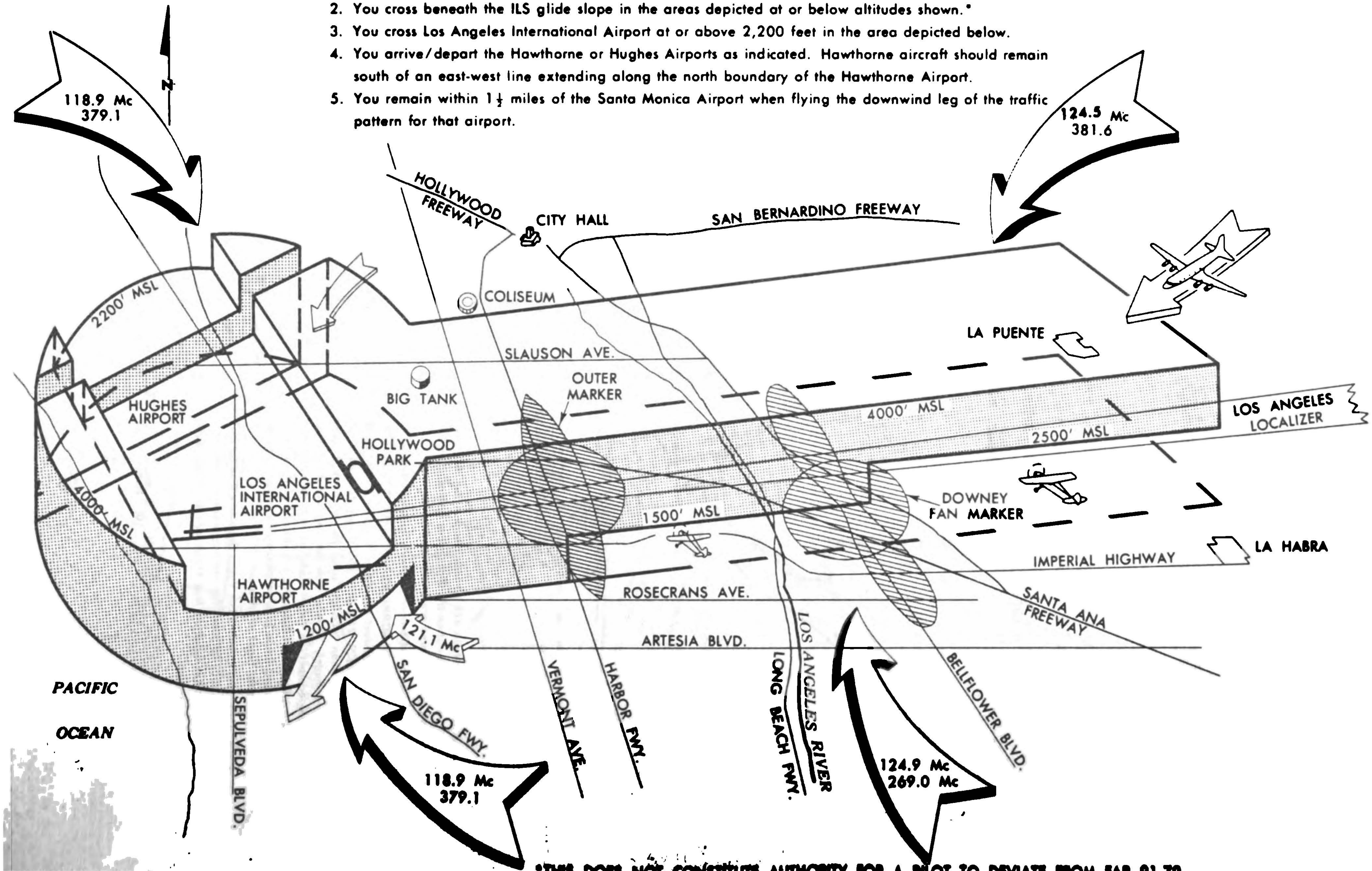
Prepared by
Coast and Geodetic Survey
U.S. DEPT OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.


118.9 Mc
379.1
N
124.5 Mc
381.6
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
COLISEUM
2200' MSL
LA PUENTE
SLAUSON AVE.
OUTER MARKER
BIG TANK
HUGHES AIRPORT
HOLLYWOOD PARK
4000' MSL
2500' MSL
LOS ANGELES LOCALIZER
LOS ANGELES INTERNATIONAL AIRPORT
4000' MSL
1500' MSL
DOWNEY FAN MARKER
LA HABRA
IMPERIAL HIGHWAY
HAWTHORNE AIRPORT
ROSECRANS AVE.
1200' MSL
121.1 Mc
ARTESIA BLVD.
SANTA ANA FREEWAY
PACIFIC OCEAN
SEPULVEDA BLVD.
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LONG BEACH FWY.
LOS ANGELES RIVER
BELLFLOWER BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN

SOUTH TEXAS AREA

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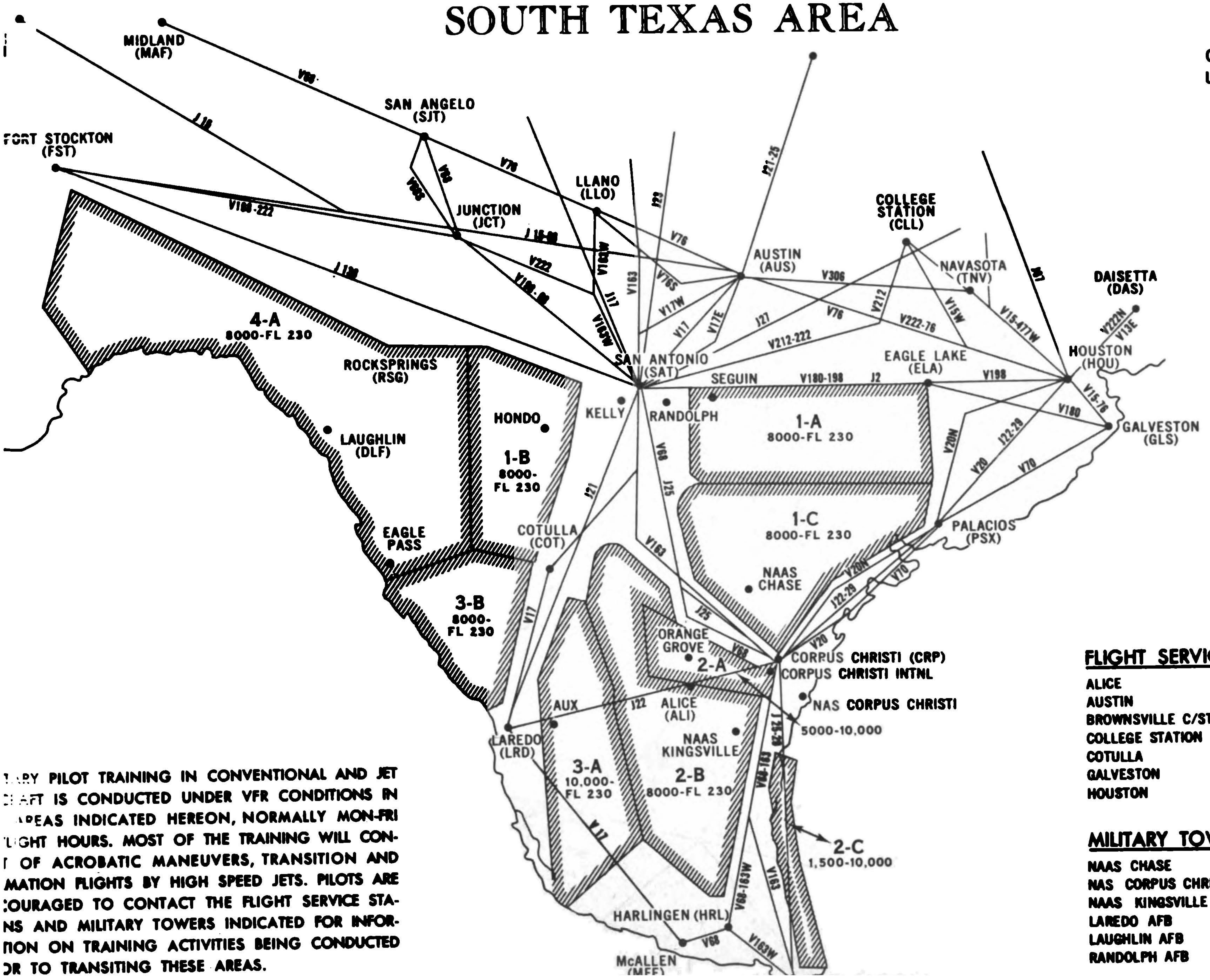
U.S. DEPT. OF COMMERCE


MIDLAND (MAF)
FORT STOCKTON (FST)
SAN ANGELO (SJT)
JUNCTION (JCT)
LLANO (LLO)
AUSTIN (AUS)
COLLEGE STATION (CLL)
NAVASOTA (TNV)
DAISETTA (DAS)
HOUSTON (HOU)
GALVESTON (GLS)
EAGLE LAKE (ELA)
PALACIOS (PSX)
SAN ANTONIO (SAT)
SEGUIN
KELLY
RANDOLPH
HONDO
ROCKSPRINGS (RSG)
LAUGHLIN (DLF)
EAGLE PASS
COTULLA (COT)
NAAS CHASE
ORANGE GROVE
ALICE (ALI)
NAAS KINGSVILLE
AUX
LAREDO (LRD)
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
5000-10,000
HARLINGEN (HRL)
McALLEN (MFE)
4-A 8000-FL 230
1-B 8000-FL 230
3-B 8000-FL 230
1-A 8000-FL 230
1-C 8000-FL 230
2-A
2-B 8000-FL 230
3-A 10,000-FL 230
2-C 1,500-10,000
V66
J18
V76
V66
V305
V186-222
J15-86
V222
V186-66
J138
J23
V76
V163
V165
V17W
V17
V17E
J17
V163W
J21-25
V306
J27
V76
V212-222
V212
V222-76
V15W
V15-477W
J87
V222N
V13E
V180-198
J2
V198
V15-76
V180
V20N
V20
122-29
V70
V68
J25
V163
J21
V17
J22
V17
V68-163
V68-163W
V163
V68
V163W

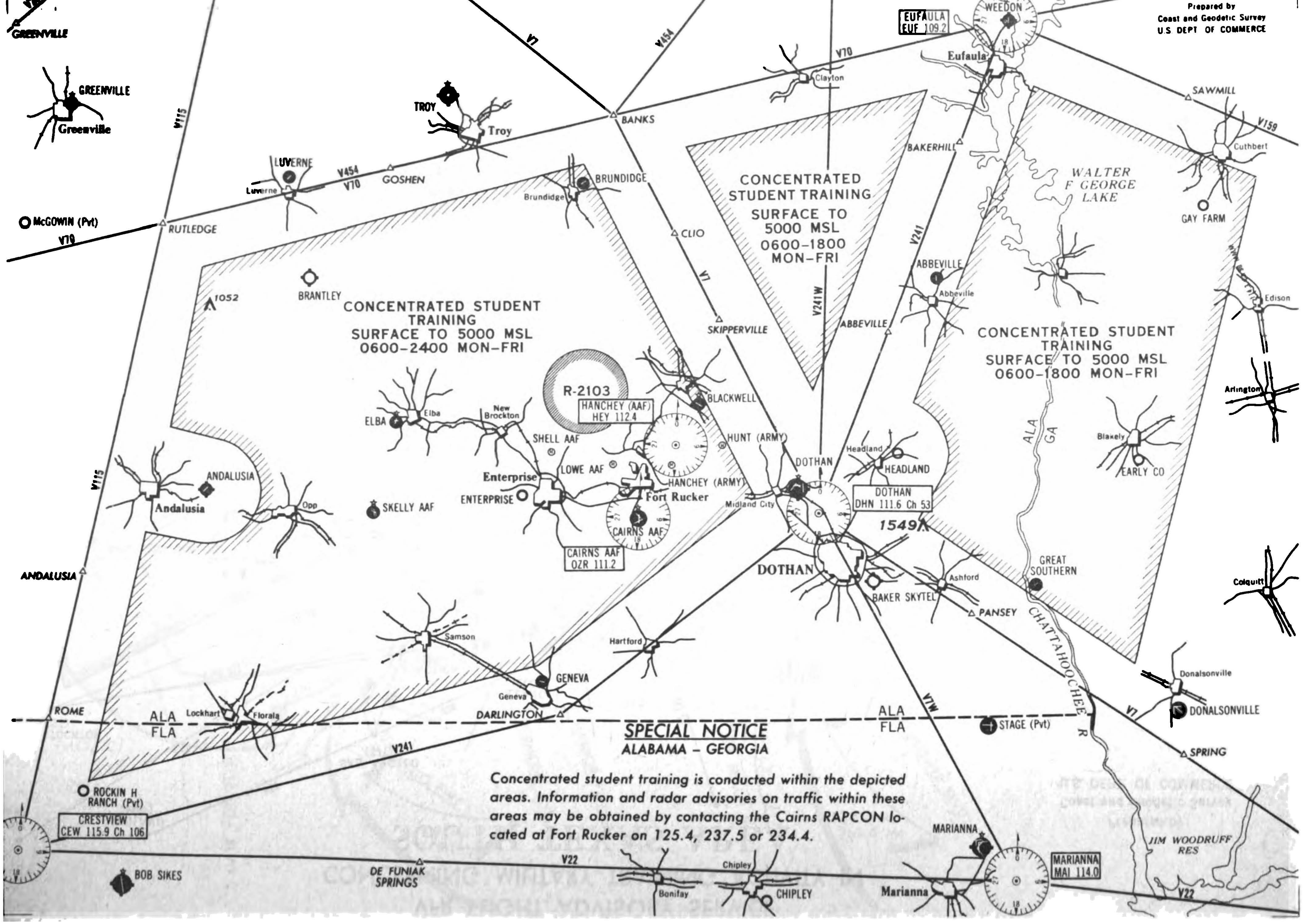
ARY PILOT TRAINING IN CONVENTIONAL AND JET
AFT IS CONDUCTED UNDER VFR CONDITIONS IN
REAS INDICATED HEREON, NORMALLY MON-FRI
GHT HOURS. MOST OF THE TRAINING WILL CON-
OF ACROBATIC MANEUVERS, TRANSITION AND
MATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE
OURAGED TO CONTACT THE FLIGHT SERVICE STA-
NS AND MILITARY TOWERS INDICATED FOR INFOR-
TION ON TRAINING ACTIVITIES BEING CONDUCTED
OR TO TRANSITING THESE AREAS.

FLIGHT SERVICE STATIONS

ALICE
AUSTIN
BROWNSVILLE C/ST
COLLEGE STATION
COTULLA
GALVESTON
HOUSTON
JUNCTION
McALLEN
MIDLAND
PALACIOS
SAN ANGELO C/ST
SAN ANTONIO
WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	118.9 134.1
LAREDO AFB	122.6R 118.5T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2

FORT RUCKER STUDENT TRAINING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Coast and Geodetic Survey
U S DEPT OF COMMERCE
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-2400 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
R-2103
HANCHEY (AAF) HEY 112.4
CAIRNS AAF OZR 111.2
DOTHAN DHN 111.6 Ch 53
EUFAULA EUF 109.2
CRESTVIEW CEW 115.9 Ch 106
MARIANNA MAI 114.0
GREENVILLE
Greenville
TROY
Troy
LUVERNE
Luverne
McGOWIN (Pvt)
RUTLEDGE
GOSHEN
BANKS
BRUNDIDGE
Brundidge
CLIO
SKIPPERVILLE
BAKERHILL
ABBEVILLE
Abbeville
Clayton
WEEDON
Eufaula
SAWMILL
Cuthbert
WALTER F GEORGE LAKE
GAY FARM
Edison
Arlington
Blakely
EARLY CO
Colquitt
BRANTLEY
1052
ELBA
Elba
New Brockton
SHELL AAF
LOWE AAF
Enterprise
ENTERPRISE
SKELLY AAF
Fort Rucker
HANCHEY (ARMY)
HUNT (ARMY)
BLACKWELL
Midland City
DOTHAN
Headland
HEADLAND
1549
BAKER SKYTEL
Ashford
PANSEY
GREAT SOUTHERN
ALA
GA
CHATTAHOOCHEE R
Donalsonville
DONALSONVILLE
SPRING
STAGE (Pvt)
ANDALUSIA
Andalusia
Opp
Samson
Hartford
GENEVA
Geneva
DARLINGTON
Lockhart
Florala
ROME
ALA
FLA
ALA
FLA
ROCKIN H RANCH (Pvt)
BOB SIKES
DE FUNIAK SPRINGS
Bonifay
Chipley
CHIPLEY
MARIANNA
Marianna
JIM WOODRUFF RES
V7
V454
V70
V115
V159
V241
V241W
V7W
V22

SPECIAL NOTICE

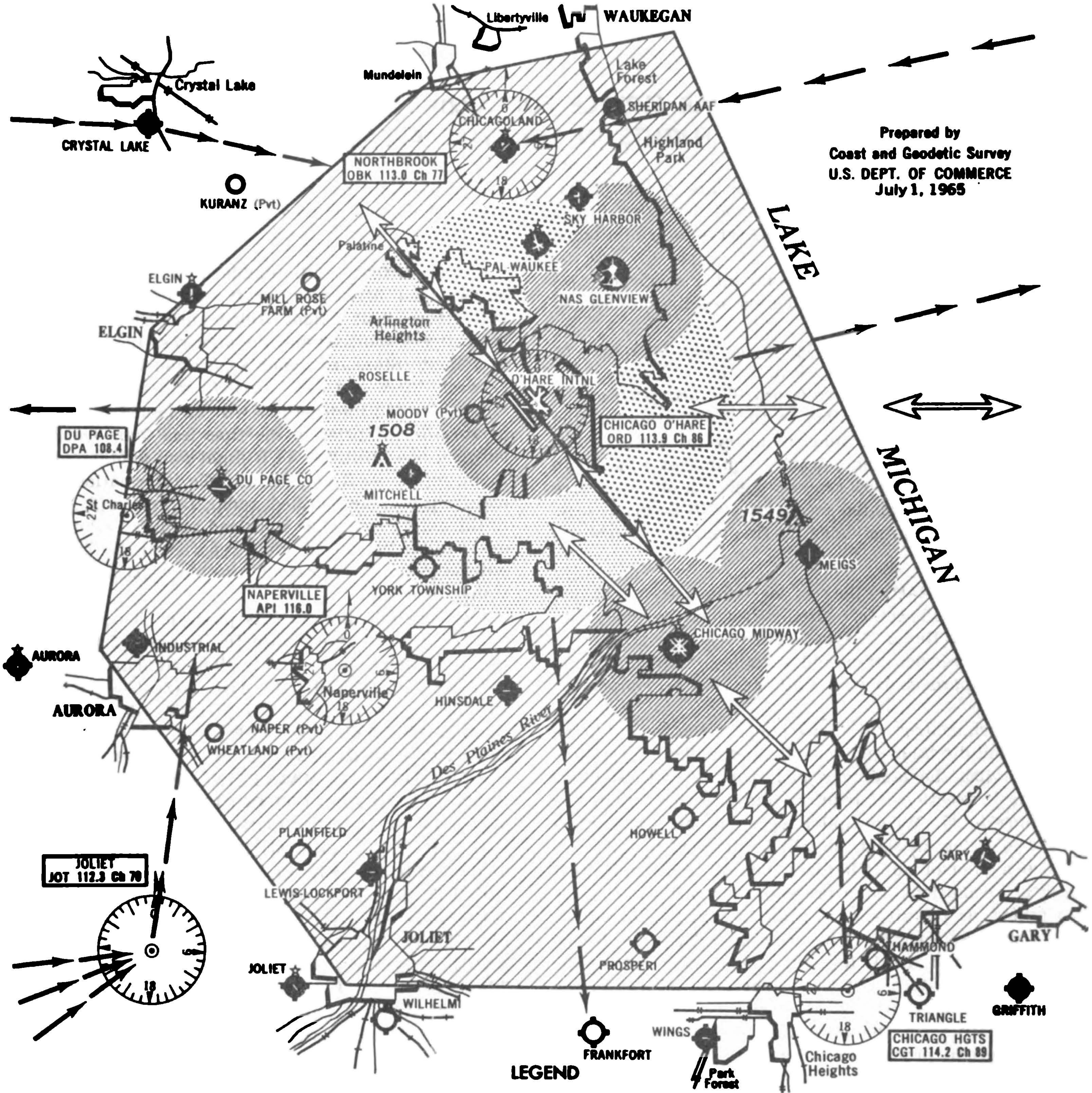
ALABAMA - GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns RAPCON located at Fort Rucker on 125.4, 237.5 or 234.4.

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Mundelein
Lake Forest
SHERIDAN AAF
Crystal Lake
CRYSTAL LAKE
CHICAGOLAND
NORTHBROOK
OBK 113.0 Ch 77
Highland Park
KURANZ (Pvt)
SKY HARBOR
Palatine
PAL WAUKEE
NAS GLENVIEW
LAKE
ELGIN
MILL ROSE FARM (Pvt)
ELGIN
Arlington Heights
ROSELLE
O'HARE INTNL
MOODY (Pvt)
1508
CHICAGO O'HARE
ORD 113.9 Ch 86
DU PAGE
DPA 108.4
DU PAGE CO
MITCHELL
St Charles
MICHIGAN
1549
MEIGS
NAPERVILLE
API 116.0
YORK TOWNSHIP
CHICAGO MIDWAY
AURORA
INDUSTRIAL
Naperville
HINSDALE
AURORA
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
JOLIET
JOT 112.3 Ch 70
LEWIS LOCKPORT
GARY
JOLIET
HAMMOND
GARY
JOLIET
PROSPERI
WILHELMI
TRIANGLE
GRIFFITH
FRANKFORT
WINGS
Park Forest
Chicago Heights
CHICAGO HGTS
CGT 114.2 Ch 89

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500′ MSL -- VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500′ MSL -- VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

- ▓ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L
- ░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▨ AIRPORT TRAFFIC AREA -- CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC →

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 034° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. inbound on 282° thru 100° use 119.7 mc. **Departure freq:** 120.4 or 381.4 mc when advised by tower.

Norfolk Municipal Airport, Virginia

Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 118.9 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting, will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF.

Washington National Airport District of Columbia

Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P-56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 118.3 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information service (WTIS) on 118.3 mc or 306.3 mc.

NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective November 1966.

Alabama

Athens, Magnusson Fld 1E
Bayou La Batre, Roy E. Ray 4NE
Foley, Chisenhall 1 S
Hazel Green, Chess King Airpark 4 W
Jackson Muni 2S
Pell City, St. Clair County 3 SE
St. Elmo, Sky Ranch 2.5N
Selma, Wiseman 4.5 SW

Arizona

Arizona City 1S
Bouse 0.5E
Tolleson, Moseley Fld 3N

Arkansas

Berryville, Carroll County 3.5 W
Booneville Sanatorium 3 E
Osceola Muni 2 W
Watson, Shilow 7 SE

California

Brentwood, Detla Airpark 5 N
Desert Center 5 NE
Midland 1 S
OJar, Henderson Fld 3 SW
Pleasant Grove, Van Dyke 3 N

Colorado

Gardner, Leavell Cattle Co. 17 NW
Greeley, Easton 7.5SE
Rocky Ford, Mellon Fld 3 SW

Florida

•Eustis, Mid Florida Air Service 3 E
Plant City, Tampa/Brandon/Plant City Arpk
Winter Haven Muni Seaplane Base 3 NNW

Georgia

Ashurn, Turner Co. 1 SW
Canon, Franklin Co. 2.5 SW
Jesup, Redlands 5 NW
•Lawrenceville, Gwinnett County 2 NE
Newnan, Newnan-Coweta County 4 S
Patterson, Forestry 2 SE
Sylvester, Worth County 4 NW
Tifton, Eaglehead 6 WSW

Idaho

•Elk City Adj SW

Illinois

Baldwin, Redpath 2 E
Franklin Grove, Full 3 NE
Rushville, Flying Club 2.5 NE
Spring Valley, Valley 1 NW

Indiana

Batesville, Hillenbrand Industries 3 NW
Mentone, Manwaring 0.8 NW
Vevay, Robinson 8 SW

Iowa

Albia Muni 3.8 SE
Albion, Leise 2.6 NE
Cedar Rapids, Welty Way Heliport 2 SW
•Marion, Linn-Aire 2 E
Mount Veron, Tonne 4.0 N
Sidney, Knox 3 WSW
Wapello, Brockway Flying B 2.5 NW

Kansas

•Lucas, Wilson Reservoir 7 S
Salina Muni 3 SW

Kentucky

Columbia, Ludot 2 SW
Russellville, Russellville-Logan County 5 SE

Louisiana

Bassier City, Scopena Plantation 10 SE
Belle Rose, Cone Air 1 W
Cottonport Flying Service 0.3 W
Coushatta, Hanna 1 S
Darnell, Boyou Meadows Airstrip 4 NE
Lafayette Heliport 2 SE
Melville, Hanks 1 S
Mer Rouge, Bacon 1 S
Mora, James 4 E
Patterson, Tri Ville Aviation Inc Seaplane Base 1 SE
St. Joseph, Hunter May 4 N
St. Martinville adj NE
Senath, Reynolds Fld 3.8 SE
Shreveport, Aero Enterprises 7.1 S
Starks 3 S
Tendal 4 B Ranch 2 SE
Transylvania, Batton 3 W

Michigan

Selkirk, Thompson 0.3 SE

Maine

Rangley, Davis Marine Seaplane Base 2 S

Minnesota

Buffalo Muni 1.0 SE
Hallock Muni 1 S
Park Rapids, Sky Manor Aero Estates 9 N

Mississippi

Fort Adams, Kees Ranch 8 N
Lucidale, Farmco Fld 11 S
Monticello, Clay 1 N
Okalona, Leuth Flying Service 5 S
Tylertown 2.5 NW

NEW AND PERMANENTLY CLOSED AIRPORTS

Missouri
Desota 0.5 E
Lewiston 1.5 SE
Montgomery City, Pleasant Acres 5 NE
●Warrensburg, Lake Sexton 9 SE

Montana
Anaconda, Mt. Haggins Landing Strip 11.5 SW
Frazer (Fort Peck) Browns Airfield 14 S
Lustre, Wall 6 NE

Nebraska
Hyannes, Davis Ranch 13 N
● Lisco, Brennan Ranch 15 NNE
Oxford 2 W
Weissert 0.2 SE

Nevada
●Baker 2 S
Coaldale 1 S
Fernley, Southwest Gas Airstrip 3 SE
Pahrump, Hidden Hills 16 SE
Round Mountain, R. O. Ranch 15 N
Wellington, Valley View Arpk 5 NNW

New Jersey
Bargaintown, Nordheim Flying K Ranch 1 NW
Newton 1.9 S

New Mexico
Loco Hills 0.2 S
Roy Muni Adj SW

New York
Alexandria Bay, Maxson Fld 1.3 S
Brant Air Service Landing Area 0.9 SW
West Bloomfield Flying Club 1.5 SW

North Carolina
Boone, Blowing Rock 2.7 SE
Long Beach, Brunswick Co. 2 N
Macon, Mocarva 7 N
Mebane, Hurdle Fld 1.8 SSE

North Dakota
● McCanna, Janice Fld 5 NW
Rutland, Pearson 4.5 N

Ohio
Galloway, Columbus Arpk, Inc. 3 NE of West Jefferson
●Mt. Vernon 4.5 S

Oklahoma
Atoka Muni 1.8 NW
Briston, Jones Meml 2.5 SW
● Coalgate, Rice 0.5 E of Clarita
Dustin 2 SE
Edmond, Service 2.5 NE
Eufaula, Canadian Fork 4 SE

Oklahoma—*Continued*
●Fairland, Bobbitt Fld 0.5 W
●Wetumka, Petes Arpk Adj E

Pennsylvania
●Tyrone, Peterson Meml Fld 4 S

South Carolina
Estill Muni 2 S
Union County 2 SW

Tennessee
Cedar Hill, Flying W Ranch 7 S
Spring Hill, Haynes Haven Farm 3 SW

Texas
Balmorhea Lake 2 SE
Clifton Muni 2 N
Elbert, Bailes 1 E
Eldorado, Derrick Ranch 21 E
Fort Worth, Oak Grove Heliport 13 S
Graford, Harmar Marina 12 WSW
Grandview, McLeroy Ranch 2 NNW
Honey Grove, Burchinal 2 W
Lampass County 2 N
Laredo, Link Ranch 6 S
Martin, Huff Fld 1 SE
Mesquite, Cole 5 SE
Perryton, Harbaugh 22S
Port Lavaca, Calhoun County 4 NW
Sabinal, McCullough Ranch 12 N
San Marcos Muni 5 E
Vernon, Lockett 6 SW
Zapata, Jennings Ranch 18 NE

Virginia
Basye, Sky Bryce 1.5 NE
Hopewell Seaplane Base 3 E
Norfolk Heliport Downtown Area
Oak Grove, Harbor View 1.8 NE

Washington
Enumclaw 1.4 WSW
● Harrington, Kramer Ranch 8 SSW
● Moses Lake, Grant County 5.5 NW
Stanwood, Strev Air 3 NW
● Sultan, Sky Harbor 1 E

West Virginia
Alderson, Riverside 1 W

Wisconsin
●Genoa City, Vincent 2 NE
Park Falls Muni 1 NE
Tony, Lake Flambeau Rusk Co Seaplane Base 1 NW
Verona, Verona Acft and Transportation Inc. 2 NE

Wyoming
Marshall, Robbins 2 S

Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

Alabama

Bayou La Batre, Bay View 7 E (a)
Haynesville, Beechwood 5 SW (c)

Arizona

Somerton, McDaniel Fld 3 W (c)
Stanfield Adj NW (a)

Arkansas
Berryville 1 NW (a)
Gassville, Red Bud Trout Dock 1 S (a)
Hunstville, Reeves 2 SE (a)
Stuttgart, Grandgeorge 7 SE (c)

California
Buttonwillow-Kern Co. (a)
●Merced, Bellevue 5 N (a)

Connecticut
Marlborough-Lesenwski 3 SE (c)

Delaware
Magnolia, Johnson adj W (c)

Florida
Everglades 1 SW (a)
Geneva, Bruce 3 SE (a)
Samsula, Spruce Creek 3 N (a)

Idaho
Orofino, Moose Creek Ranch 59 SE (c)

Illinois
Amboy-Albrercht 5 S (c)
Lebanon, Lebert Strip 1 SE (c)
Monticello, Allberton Park 2 W (c)
Tinley Park, Prosperi 1 W (a)
Waterloo, Dugan 1 S (c)

Indiana
Chesterton, Bodin 2 NE (c)

Kansas
Baxter Springs, Y and M (c)
Benton, Nelson Fld Adj SW (c)
Geneseo, Kratzer 5 NW (a)
Lorraine, Wilkens 2 SW (a)
Pratt, Fincham 10 N (a)
Pretty Prairie, Unrich 3 NE (c)
Salina Muni 2 SE (a)
Scott City, Kough 20 NW (c)
Wakeeney, Gallaway 3 NE (c)

Louisiana
Hackberry adj NW (a)
Harvey Seaplane Base Adj S (a)
Montgomery, Hall 1 NW (a)
New Iberia, Dugas 3N (a)
Wisner Airstrip 1 W(c)

Maryland
Baltimore, Rutherford 7 NW (c)
Silesia, Bower Fld 2 N (c)

Michigan
Gaylord, Au Sable Ranch 5 SE (c)

Mississippi
Belzoni Charter Service 1 E(a)
Magnolia, Progress 10 SE(a)

Missouri
Gravois Mills, Adkins 3 SE (c)
St. Joseph, Eastside 1 E(a)

Montana
Gallatin Gateway, Nine Quarter Circle Ranch 32 S (c)
Havre, Davis 10 NE (c)
Lodge Grass, Pope 8 SE (a)
Sand Springs, Kreider Ranch Adj S (c)

Nebraska
Elkhorn, St. Johns Seminary 2 NW (c)
Lincoln, Eden Sky Ranch 1 E (c)
● Lisco, Buske Fld 6 NE (a)

New York
Albany, Tallent Fld 6.5 SW(a)
Chippewa Bay, Allens Fld 2 NW (a)
Kerhonkson, Piolis Brookside 4 NNW(c)
Lafargeville, Tims Angus Farms 3 E (c)
Lockport, Cambria 4 NW (c)
● Mohawk, Mac 1 SE (c)

North Carolina
● Durham, Wilkens 7 NE (c)
Gibsonville, McLean Bros 1 SW(c)

Ohio
Amelia, Sky Hill NE (a)
Caldwell, Myrtle Fld 3 S (a)
Canal Winchester, Anderson 3 SE (c)
Circleville, Elsea 2 N (a)
Cleveland, Burke Lakefront Seaplane Base 1 N (a)
Morrow 2 SW (a)
Norwalk, 2N (a)
Tiffin, Circle V Flying Fld 4SW (a)

Oklahoma
Muscogee, Schumacher 3 S(a)
● Wilson, Cockerell Adj S (a)

Pennsylvania
Hawley-Greenetown Mountain Bay, Lake Wallenpaupack 6 SW (a)
Mahanoy City, Bedinsky 2 SE (c)
Matamoras Muni Adj SE (a)

Texas
Arlington, Lucas 3 SW (c)
Azle, Atwood 3 NW (a)
Cotton Center Starnes 7 S (a)
Palacios, Richman 5 NE (c)
Pecan Gap 1 SW (c)
San Angelo, West Texas Boys Ranch 15 SW (a)
San Antonio, Intl Heliport 7 N (a)
San Antonio, Riverview Arpk 9 SW
Sanderson 2 W (a)
Sudan Adj S (a)
Valentine 1 NW (a)

Utah
Torrey 1 S (a)

Washington
Carson Adj S (a)
● Gurney, Spud River 1.8 SSW (c)

West Virginia
Fairmont Muni 2 SE (a)

Wisconsin
● Lake Geneva, Arnold Arpk 0.8 SE (c)
● Lake Geneva, Wal-Co-Wis Farms 2.5 S (c)
Neenah, Valley Airways 3 SW (c)
Park Falls, Robbel 1 NW (a)
Plymouth, Carm 2 NW (a)
Sturtevant, Air City (a)

MILITARY AERIAL REFUELING TRACKS

Effective February 7, 1966

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain.Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak.,	GSG 072/88		FSD 003/67.
	Iowa. Minn.	MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak.,	GSG 092/77		FSD 346/42.
	Iowa. Minn.	MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N.	FAR 225/42		SAW 242/39.
	Dak., S. Dak.	SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N.	ABR 038/37		SAW 219/62.
	Dak., S. Dak.	SAW 151/64		FAR 137/65.
AR-110 Advance	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
		LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
AR-307 Big Fish	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
AR-308 Blue Cross	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription on request to the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Md. 20852 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section II-A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B-52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,300' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL; to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

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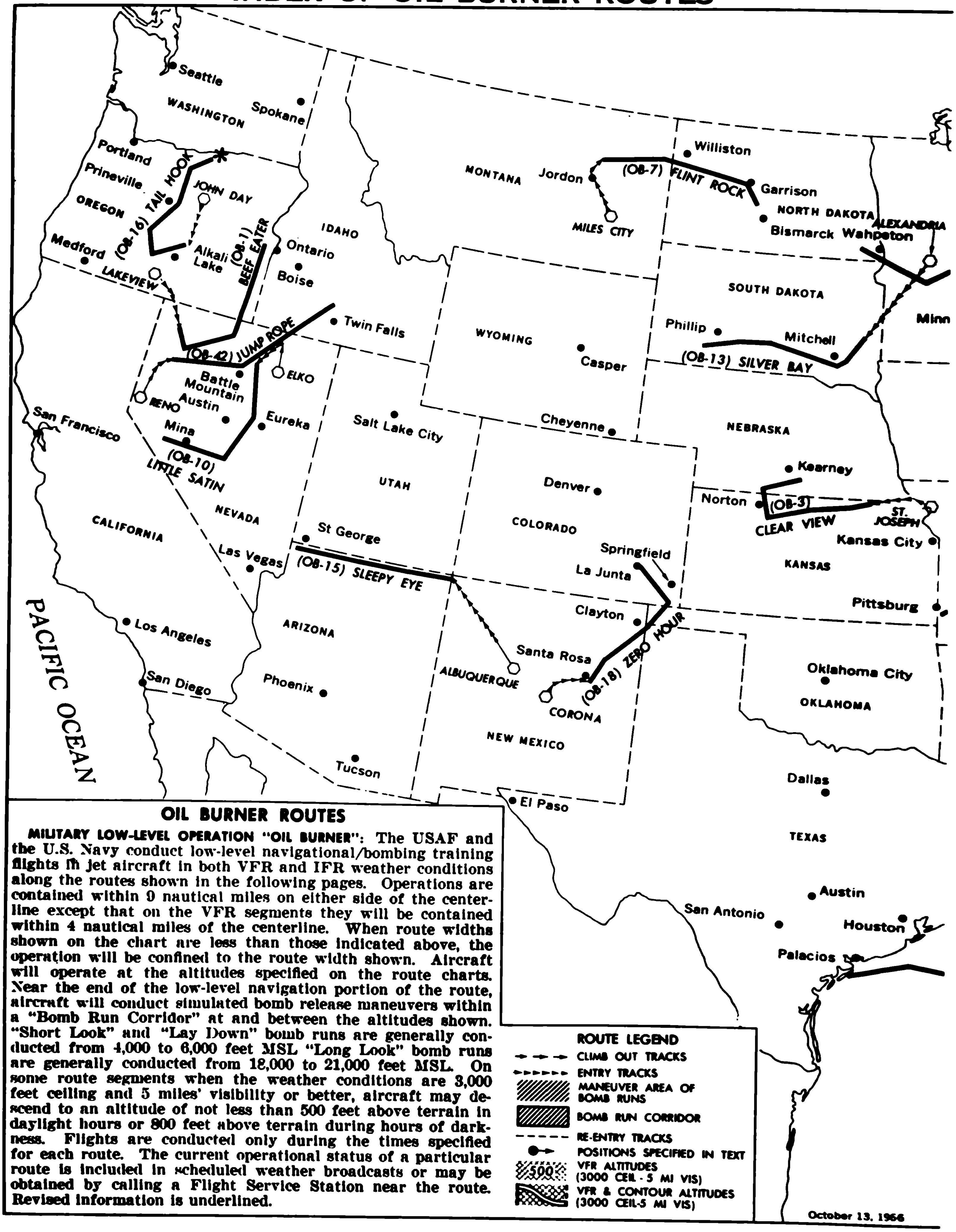
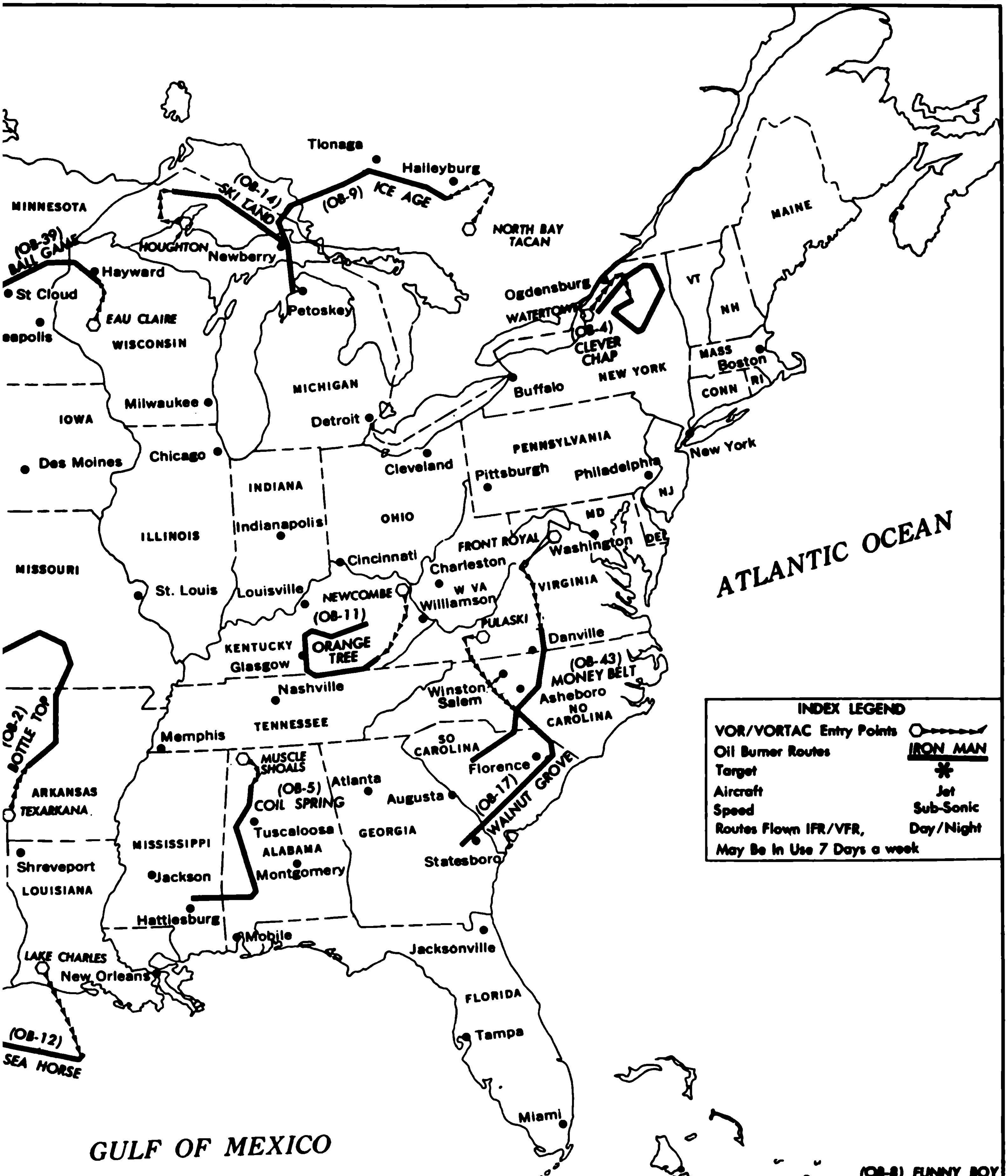
INDEX OF OIL BURNER ROUTES


Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
(OB-1) BEEF EATER
LAKEVIEW
Ontario
Boise
IDAHO
Twin Falls
(OB-42) JUMP ROPE
ELKO
Battle Mountain
RENO
Austin
Eureka
Mina
(OB-10) LITTLE SATIN
NEVADA
San Francisco
CALIFORNIA
Las Vegas
Los Angeles
San Diego
PACIFIC OCEAN
MONTANA
Jordon
MILES CITY
(OB-7) FLINT ROCK
Williston
Garrison
NORTH DAKOTA
Bismarck
Wahpeton
ALEXANDRIA
SOUTH DAKOTA
Minn
Phillip
Mitchell
(OB-13) SILVER BAY
WYOMING
Casper
Cheyenne
NEBRASKA
Kearney
Norton
(OB-3) CLEAR VIEW
ST. JOSEPH
Kansas City
KANSAS
Pittsburg
Salt Lake City
UTAH
St George
(OB-15) SLEEPY EYE
Denver
COLORADO
Springfield
La Junta
Clayton
(OB-18) ZERO HOUR
Santa Rosa
ALBUQUERQUE
CORONA
NEW MEXICO
ARIZONA
Phoenix
Tucson
El Paso
Oklahoma City
OKLAHOMA
Dallas
TEXAS
Austin
San Antonio
Houston
Palacios
ROUTE LEGEND
CLIMB OUT TRACKS
ENTRY TRACKS
MANEUVER AREA OF BOMB RUNS
BOMB RUN CORRIDOR
RE-ENTRY TRACKS
POSITIONS SPECIFIED IN TEXT
500
VFR ALTITUDES (3000 CEIL - 5 MI VIS)
VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

INDEX OF OIL BURNER ROUTES


Tionaga
Haileyburg
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
MINNESOTA
(OB-39) BALL GAME
HOUGHTON
Newberry
Hayward
St Cloud
EAU CLAIRE
eapolis
WISCONSIN
Petoskey
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
MAINE
VT
NH
MASS
Boston
RI
CONN
NEW YORK
Buffalo
MICHIGAN
Milwaukee
IOWA
Detroit
Des Moines
Chicago
Cleveland
PENNSYLVANIA
Pittsburgh
Philadelphia
New York
NJ
INDIANA
OHIO
Indianapolis
ILLINOIS
MD
DEL
FRONT ROYAL
Washington
Cincinnati
Charleston
W VA
MISSOURI
St. Louis
Louisville
NEWCOMBE
Williamson
VIRGINIA
ATLANTIC OCEAN
(OB-11) ORANGE TREE
PULASKI
Danville
KENTUCKY
Glasgow
(OB-43) MONEY BELT
Asheboro
Winston Salem
NO CAROLINA
Nashville
TENNESSEE
(OB-2) BOTTLE TOP
Memphis
SO CAROLINA
Florence
MUSCLE SHOALS
Atlanta
(OB-5) COIL SPRING
Augusta
(OB-17) WALNUT GROVE
ARKANSAS
TEXARKANA
Tuscaloosa
GEORGIA
MISSISSIPPI
ALABAMA
Statesboro
Shreveport
Jackson
Montgomery
LOUISIANA
Hattiesburg
Mobile
Jacksonville
LAKE CHARLES
New Orleans
FLORIDA
(OB-12) SEA HORSE
Tampa
Miami
GULF OF MEXICO
(OB-8) FUNNY BOY
MAYAGUANA AFB

INDEX LEGEND	
VOR/VORTAC Entry Points	○‣‣‣‣‣‣
Oil Burner Routes	IRON MAN
Target	✱
Aircraft	Jet
Speed	Sub-Sonic
Routes Flown IFR/VFR,	Day/Night
May Be In Use 7 Days a week	

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

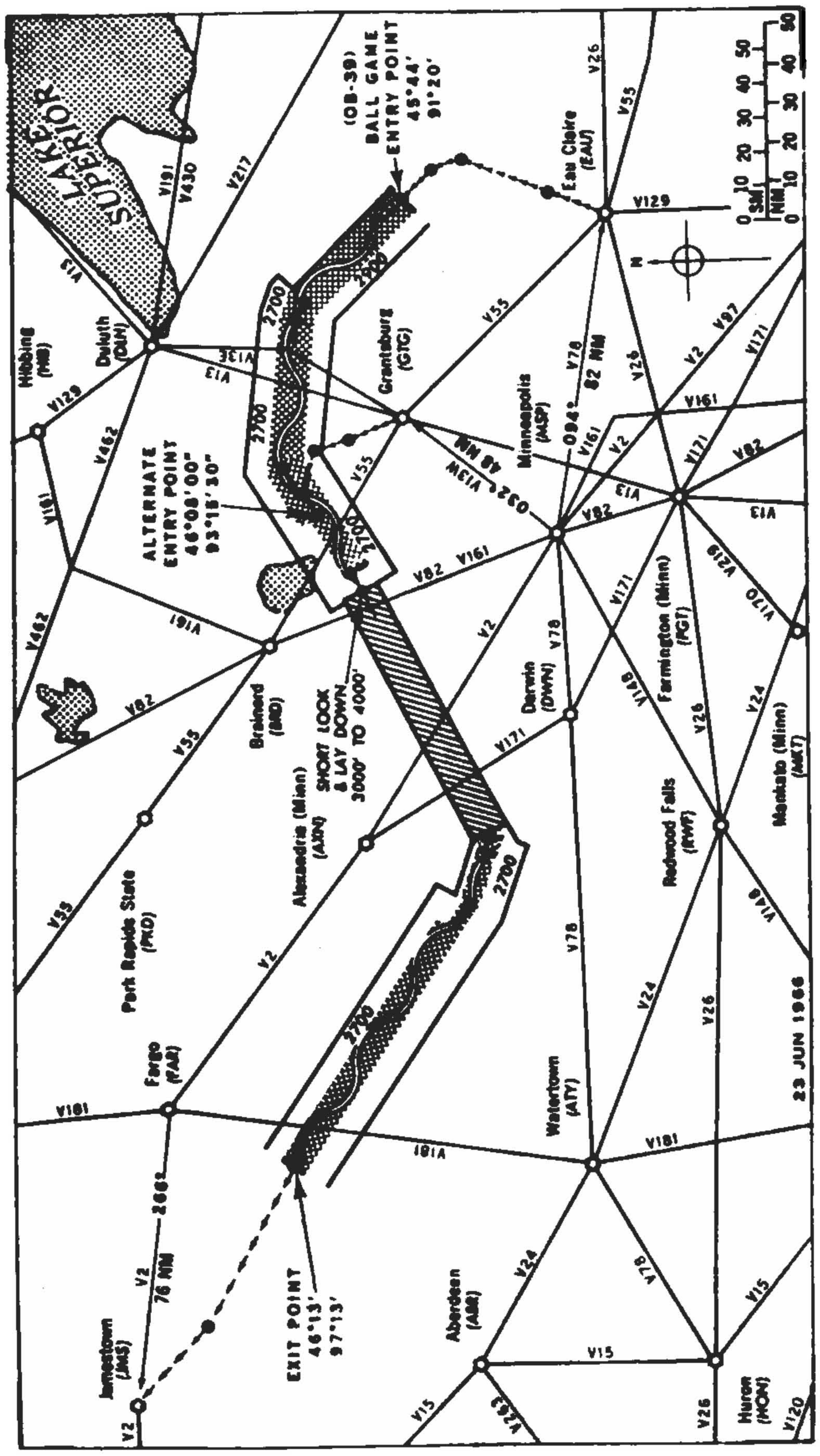
OIL BURNER ROUTES

MINNESOTA/NORTH DAKOTA/SOUTH DAKOTA/ WISCONSIN

BALL GAME OB–39

Effective August 1, 1966 thru January 21, 1967

Aircraft shall cross Minneapolis VORTAC 094/82 DME fix (Eau Claire, Wisc. VOR) at FL 230 or as assigned by ARTCC; then at FL 230 or assigned altitude direct to 45°08'N, 91°20'W; then start descent so as to cross 45°29'N, 91°07'W at or below 11,000' MSL; then turn left descending to 45°37'N, 91°10'W; then continue descent direct so as to cross 45°44'N, 91°20'W, the low level entry point, at 2,900' MSL; then at 2,900' MSL direct 46°10'N, 91°56'W; then turn left descending so as to cross 46°12'N, 92°02'W at 2,700' MSL; then at 2,700' MSL direct to 46°16'30''N, 92°56'W; then at 2,700' MSL direct to 46°00'N, 93°35'30''W then climb so as to cross 45°57'N, 93°42'W at 3,000' MSL.


LAKE SUPERIOR
(OB-39) BALL GAME ENTRY POINT 45°44' 91°20'
Eau Claire (EAU)
Minneapolis (MSP)
094° 82 NM
032° 48 NM
Grantsburg (GTG)
Duluth (DLH)
Hibbing (HIB)
ALTERNATE ENTRY POINT 46°08'00" 93°15'30"
Brainerd (BRD)
Alexandria (Minn) (AXN)
SHORT LOOK & LAY DOWN 3000' TO 4000'
Darwin (DWN)
Farmington (Minn) (FGT)
Mankato (Minn) (MKT)
Redwood Falls (RWF)
Park Rapids State (PKD)
Fargo (FAR)
266°
V2 76 NM
Watertown (ATY)
Jamestown (JMS)
EXIT POINT 46°13' 97°13'
Aberdeen (ABR)
Huron (HON)
2900
2700
SM
NM
0 10 20 30 40 50
N
23 JUN 1966

Short Look and Lay Down—After passing 45°57'N, 93°42'W, aircraft shall operate between 3,000' MSL and 4,000' MSL through the bomb run corridor (4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N, 95°10'W). After exiting the bomb run corridor at 45°25'W, 95°10'W, aircraft shall descend direct so as to cross 45°31'N, 95°36'W at 2,700' MSL; then at 2,700' MSL direct 46°13'N, 97°13'W. After exiting the route at 46°13'N, 97°13'W, aircraft shall start climb so as to cross 46°39'N, 98°12'W at FL 200 or above; then climb direct so as to cross Fargo, N.D. VORTAC DME 266/76 fix (Jamestown, N.D. VOR) at FL 250.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°44'N, 91°20'W to 46°00'N, 93°35'30''W and from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Alternate Entry—Aircraft shall cross the Minneapolis VORTAC 032/48 DME fix (Grantsburg, Wisc. VOR) at FL 230 or as assigned by ARTCC, then descend so as to cross 46°00'N, 92°47'30''W at 17,000' MSL or above; then continue descent direct so as to cross 46°08'N, 92°51'30''W at 13,000' MSL or above; then turn left continuing descent so as to cross 46°12'N, 93°06'W at 7,000' MSL; then continue descent so as to cross 46°08'N, 93°15'30''W at 2,700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM on the northeast side of centerline from 45°44'N, 91°20'W to 46°10'N, 91°56'W and 4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N 95°10'W and 4 NM on the north side of centerline from 45°25'N, 95°10'W to 45°31'N, 95°36'W. The VFR route width is reduced to 2 NM on the northwest side of centerline from 46°08'N, 93°15'30''W to 46°00'N, 93°35'30''W and to 2 NM on the north side of centerline from 45°25'N, 95°10'W to 45°35'N, 95°45'W and to 2 NM on the south side of centerline from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Hours of Operation—24 hours daily, 7 days a week.

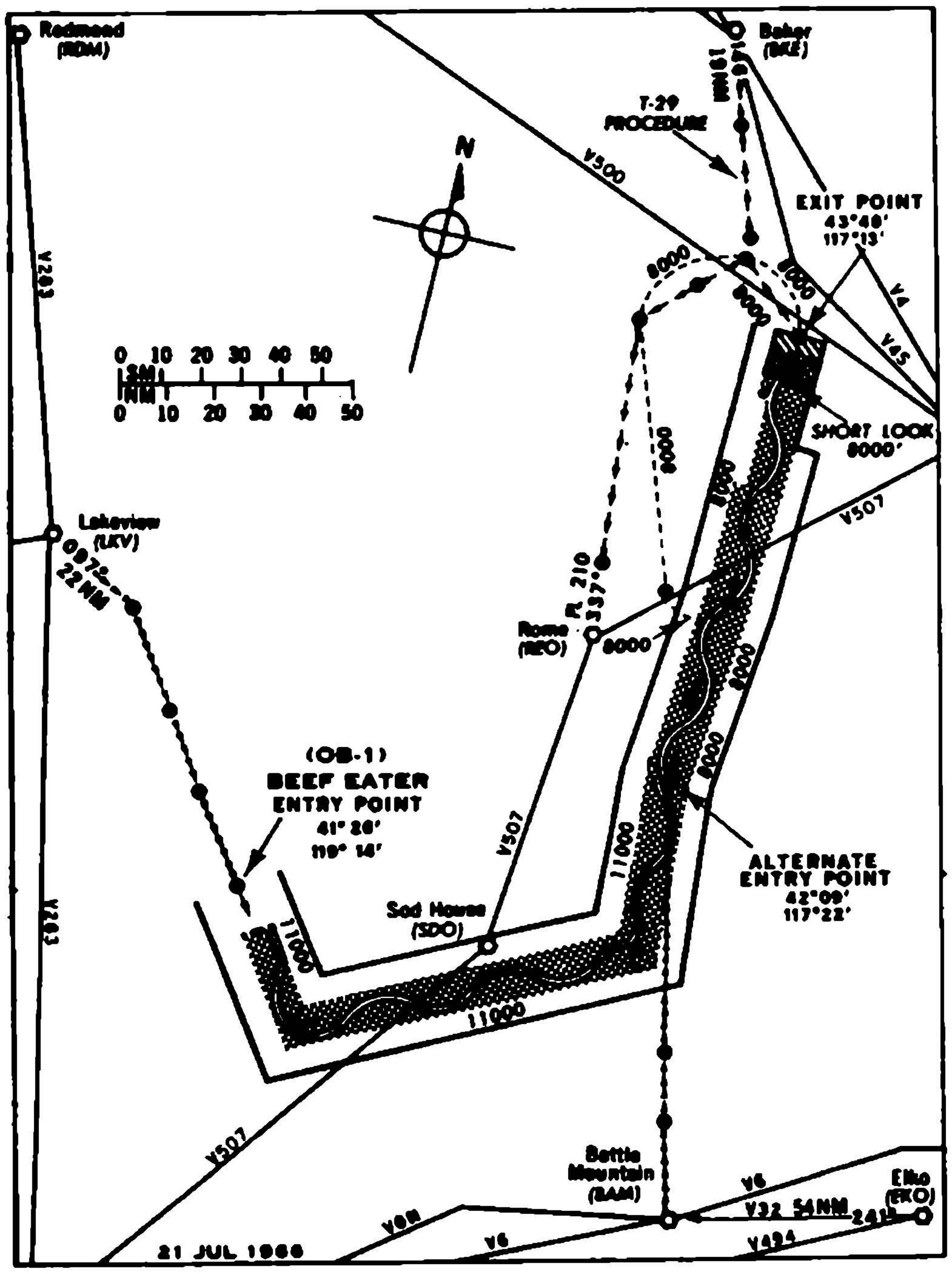
NEVADA/OREGON

BEEF EATER OB–1

Revised Effective June 19, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC;

then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°20'N, 120°04'W); then descend direct to cross 42°00'N, 119°45'W at or below FL 230; then descend direct so as to cross 41°44'N, 119°31'W at or above 16,000' MSL; then descend direct so as to cross the entry point of the low level route at 41°26'N, 119°14'W at 11,000' MSL; then at 11,000' MSL direct to 40°58'N, 118°49'W, then 11,000' MSL direct 41°31'N, 117°20'W, 11,000' MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40' N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 210, then maintain FL 210 via the Rome, Oregon 337 radial to the Rome, Oregon VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°17'N, 119°06'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W then descend direct so as to cross 41°10'N, 117°05'W at or above 12,000' MSL; then descend direct so as to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 3 NM on the west side of centerline from 41°17'N, 119°06'W to 40°58'N, 118°49'W and to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T-29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

BOTTLE TOP OB-2

Revised Effective April 24, 1966

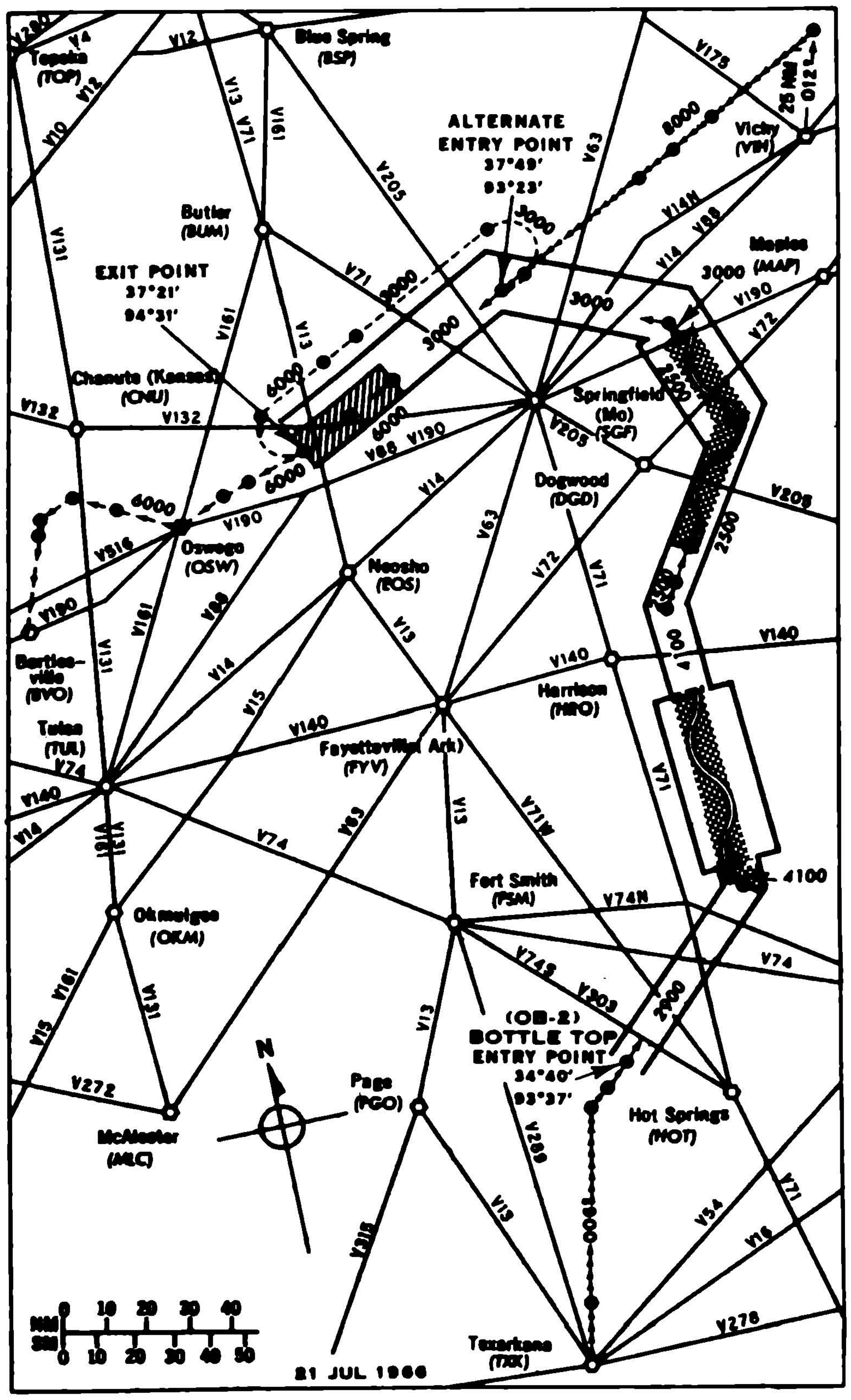
Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W. at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°31'W, maintain 6000' MSL, turn right to 37°32'N, 94°41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30''N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 92°34'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ARTCC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34''W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.


Topeka (TOP)
Blue Spring (BSP)
ALTERNATE ENTRY POINT 37°49' 93°23'
Vichy (VIH)
25 NM
012
Butler (BUM)
EXIT POINT 37°21' 94°31'
Maples (MAP)
Chanute (Kansas) (CNU)
Springfield (Mo) (SGF)
Dogwood (DGD)
Oswego (OSW)
Neosho (EOS)
Bartlesville (BVO)
Tulsa (TUL)
Harrison (HRO)
Fayetteville (Ark) (FYV)
Okmulgee (OKM)
Fort Smith (FSM)
(OB-2) BOTTLE TOP ENTRY POINT 34°40' 93°37'
Hot Springs (HOT)
Page (PGO)
McAlester (MLC)
Texarkana (TXK)
8000
6000
3000
2300
4100
2900
N
NM 0 10 20 30 40
SM 0 10 20 30 40 50
21 JUL 1966

Route Width—The IFR route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°06'N, 92°23'W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W. The VFR route width from 35°21'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°06'N, 92°23'W is reduced to 2 NM on the east side of centerline.

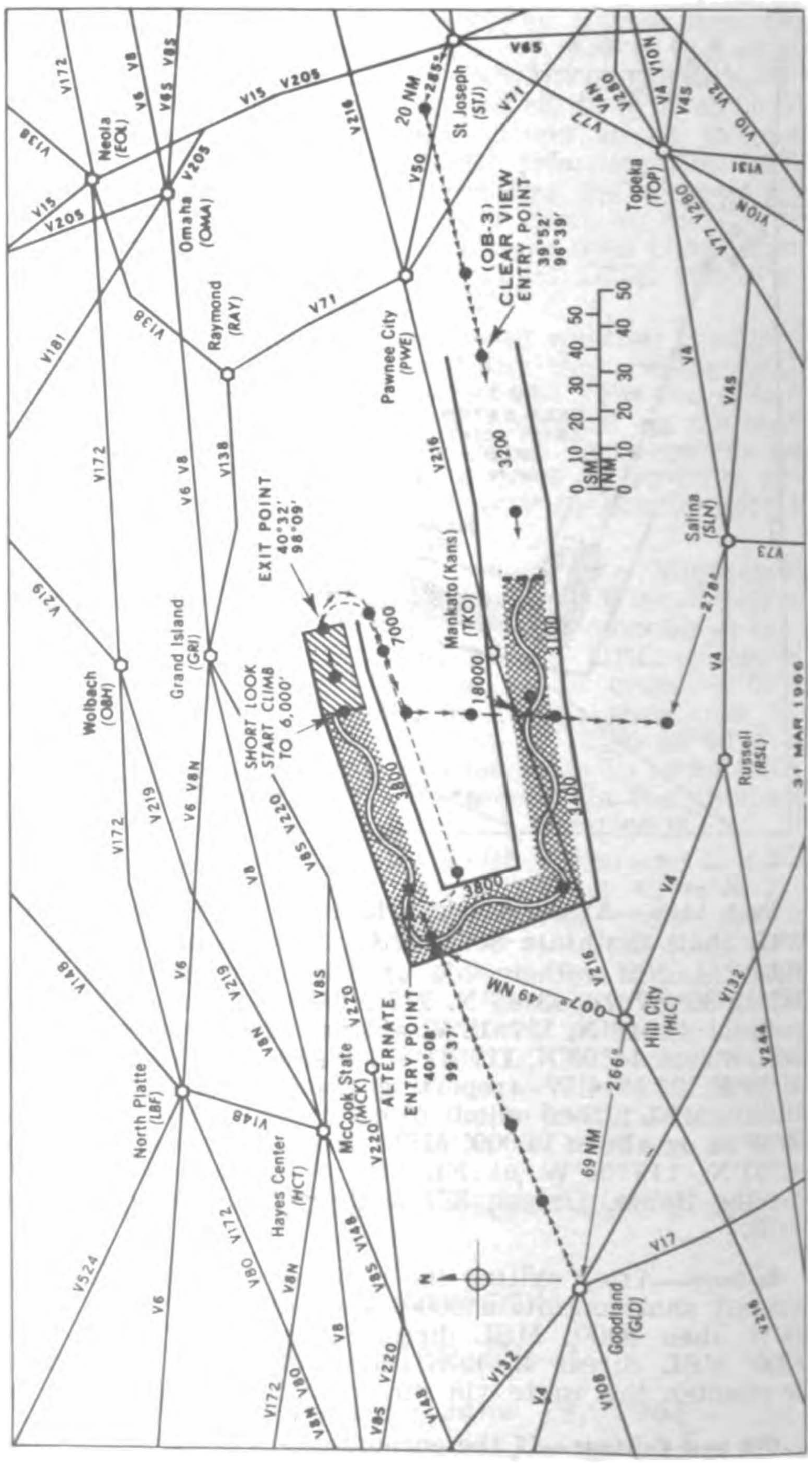
Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB–3

Revised Effective March 27, 1966

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL


St Joseph (STJ)
20 NM
285°
Omaha (OMA)
Neola (EOK)
Raymond (RAY)
Pawnee City (PWE)
(OB-3) CLEAR VIEW ENTRY POINT 39°52' 96°39'
Topeka (TOP)
Salina (SLN)
Mankato (Kans) (TKO)
EXIT POINT 40°32' 98°09'
SHORT LOOK START CLIMB TO 6,000'
Grand Island (GRI)
Wolbach (OBH)
Russell (RSL)
Hill City (HLC)
ALTERNATE ENTRY POINT 40°08' 99°37'
McCook State (MCK)
North Platte (LBF)
Hayes Center (HCT)
Goodland (GLD)
69 NM
266°
3200
7000
18000
3100
3400
3800
NM 0 10 20 30 40 50
SM 0 10 20 30 40 50
31 MAR 1966

direct 40°03'N, 99°50'W maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (4 NM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.

Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

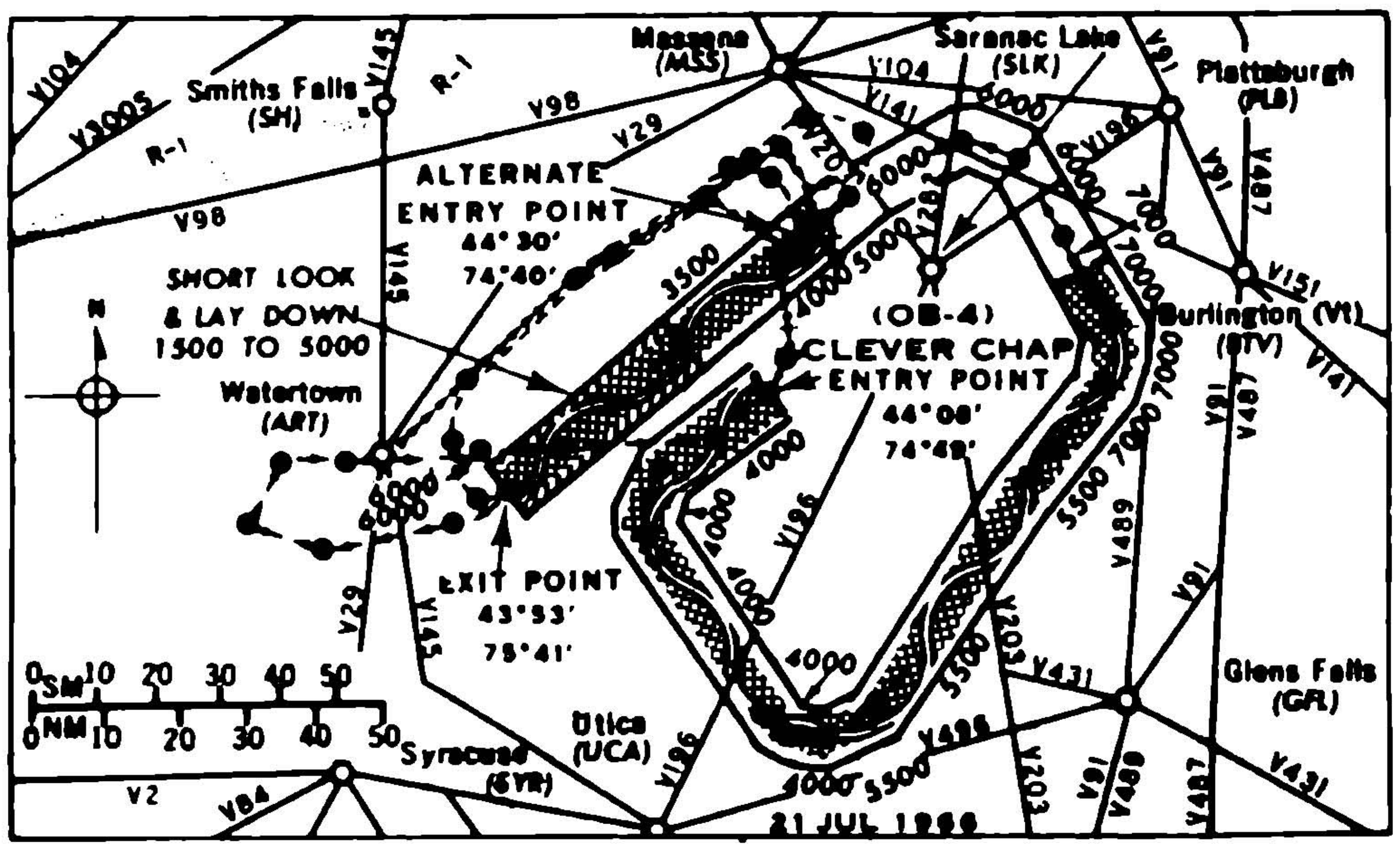
Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

CLEVER CHAP OB—4

Revised Effective February 27, 1966

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below: cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13'N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17'N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W: climb to cross 43°59'N, 73°51'W at 7,000 feet MSL: maintain 7,000 feet MSL direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL; cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.



Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43'N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at FL 180; cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR

contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48'N, 75°12'W to 44°16'N, 73°39'W 2 NM either side of center line.

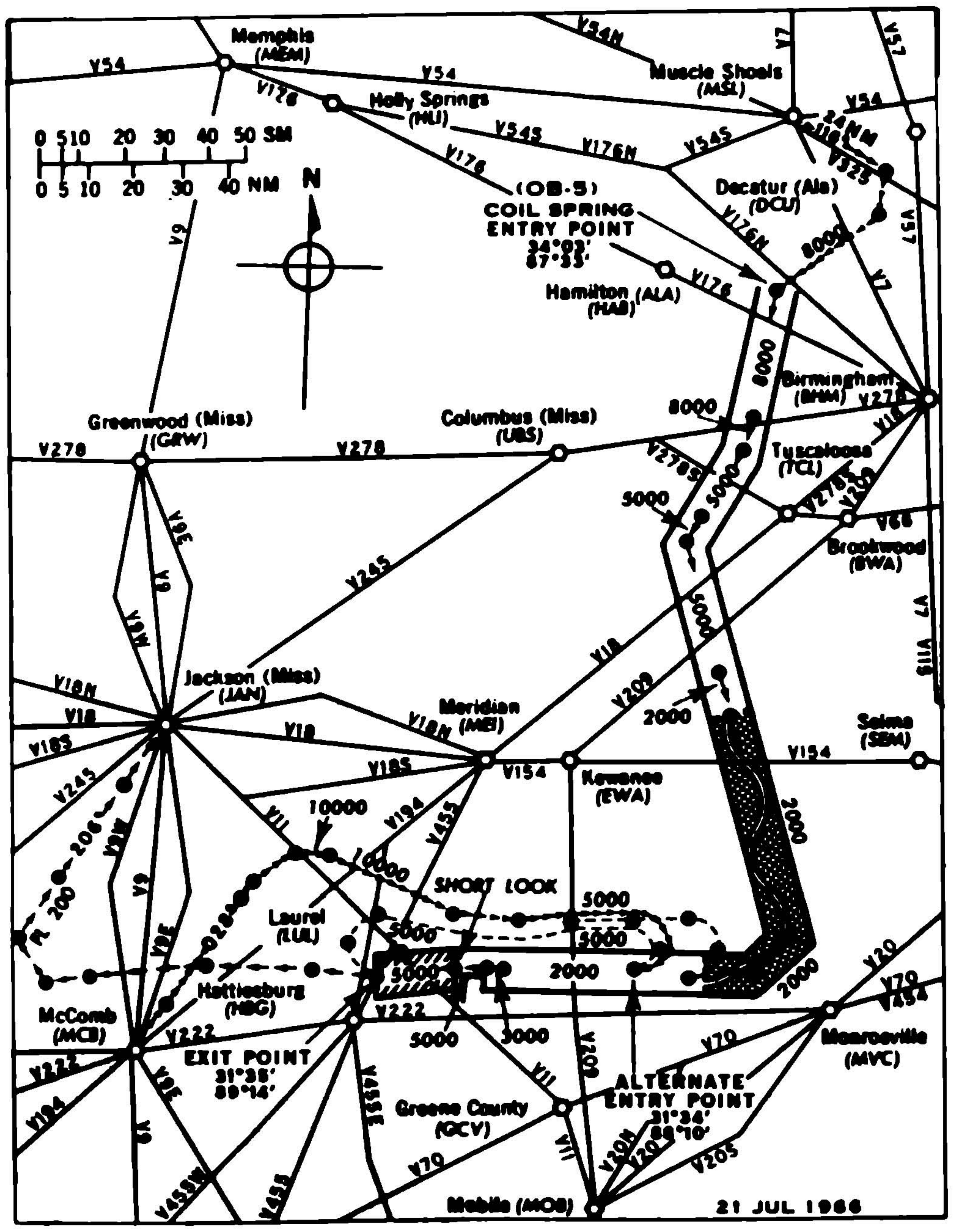
Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB-5

Revised Effective January 6, 1966

Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000' MSL; turn right, descend to cross 34°19'N, 87°06'W at 8000' MSL, maintain 8000' MSL direct to the route entry point at 34°03'N, 87°33'W, direct 33°-35'N, 87°38'W, direct 33°28'N, 87°42'W; descend direct to cross 33°15'N, 87°52'W at 5000' MSL, maintain 5000' MSL direct 33°10'N, 87°56'W, direct 32°40'N, 87°48'W; descend to cross 32°31'N, 87°45'W at 2000' MSL, maintain 2000' MSL direct 31°41'N, 87°31'W, turn right to 31°33'N, 87°40'W, maintain 2000' MSL direct 31°36'N, 88°42'W; climb direct to cross 31°36'N, 88°46'W at 3000' MSL, direct to cross 31°36'N, 88°54'30"W at 5000' MSL. In addition to the above, aircraft may climb to 3000' MSL after 31°33'N, 87°40'W and maintain 3000' MSL to 31°36'N, 88°54'30" during the hours 0600Z-1200Z.


Memphis (MEM)
V54
V176
Holly Springs (HLI)
V545
V176N
Muscle Shoals (MSL)
0 5 10 20 30 40 50 SM
0 5 10 20 30 40 NM
N
(OB-5) COIL SPRING ENTRY POINT 34°03' 87°33'
Decatur (Ala) (DCU)
8000
Hamilton (ALA) (HAB)
V7
V57
Birmingham (BHM)
Greenwood (Miss) (GRW)
V278
Columbus (Miss) (UBS)
8000
Tuscaloosa (TCL)
5000
Brookwood (BWA)
V245
V9
V18
Jackson (Miss) (JAN)
Meridian (MEI)
V209
2000
Selma (SEM)
V185
V154
Kewanee (EWA)
10000
SHORT LOOK
5000
3000
2000
Laurel (LUL)
Hattiesburg (HBG)
McComb (MCB)
V222
EXIT POINT 31°35' 89°14'
5000
3000
ALTERNATE ENTRY POINT 31°34' 88°10'
Greene County (GCV)
V70
Monroeville (MVC)
V205
Mobile (MOB)
21 JUL 1966

Short Look—After passing 31°36'N, 88°54'30"W aircraft shall operate through the bomb run corridor at 5000' MSL. In addition, aircraft may operate through the bomb run corridor at 3000' MSL during the hours 0600Z-1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36'N, 88°54'30"W to 31°35'N, 89°14' W.) After exiting the route at 31°35'N, 89°14'W, aircraft shall cross 31°36'N, 89°30'W at 5000' MSL; start climb direct to cross 31°37'N, 89°56'W at 14,000' MSL (reporting point), maintain 14,000' MSL direct 31°33'N, 90°25'W; start climb direct 31°32'N, 90°36'W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42'N, 90°44'W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55'N, 90°35'W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35'N, 89°14'W, turn right, cross 31°42'N, 89°22'W at 5000' MSL, maintain 5000' MSL, turn right to 31°49'N, 89°-14'W, direct 31°48'N, 88°27'W; direct 31°48'N, 88°10'W; turn right, cross 31°40'N, 88°03'W at 3000' MSL; continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route. Aircraft may proceed at 5000' MSL from 31°48'N, 88°27'W; direct 31°48'N, 87°57'W; turn right descend to cross 31°41'N, 87°49'W at 3000' MSL; continue turn to cross 31°34'N, 87°57'W at 2000' MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 32°31'N, 87°45'W to 31°33'N, 87°52'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18'15"N, 90°15'29"W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000' MSL; cross 45 NM fix at 14,000' MSL; turn right, cross 32°01'N, 89°35'W at 10,000' MSL, maintain 10,000' MSL, turn right, 32°01'N, 89°27'W, direct 31°49'N, 88°55'W; descend direct, cross 31°48'N, 88°39'W at 6000' MSL; direct, cross 31°48'N, 88°27'W at 5000' MSL, maintain 5000' MSL direct 31°48'N, 88°10'W; turn right cross 31°40'N, 88°03'W at 3000' MSL continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36'N, 88°46'W to 31°36'N, 88°54'30"W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

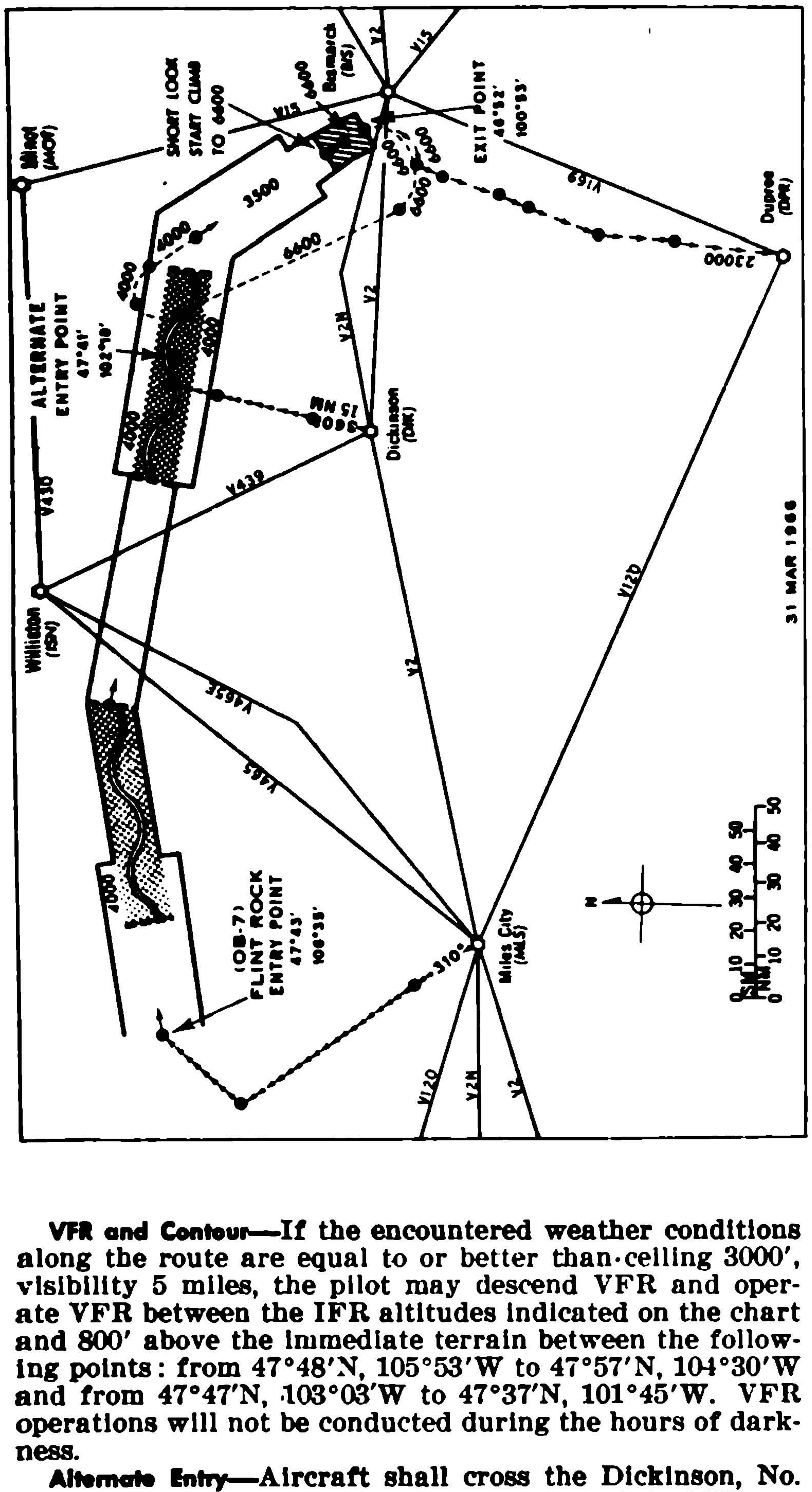
FLINT ROCK OB-7

Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40'N, 106°14'W; then descend to cross 47°24'N, 107°00'W at or above 6000' MSL; then continue descent so as to cross the route entry point, 47°43'N, 106°35'W, at 4000' MSL; then at 4000' MSL direct 47°57'N, 104°30'W; then at 4000' MSL direct 47°35'N, 101°31'W; then descend to 3500' MSL direct 47°02'N, 101°02'W.

Short Look—After passing 47°02'N, 101°02'W aircraft shall climb so as to cross 46°56'N, 100°56'W at 6600' MSL; then at 6600' MSL direct to the exit point 46°52'N, 100°53'W (bomb run corridor 4 NM either side of centerline from 47°02'N, 101°02'W to the exit point 46°52'N, 100°58'W); then maintaining 6600' MSL turn right direct 46°39'N, 101°07'W; then start climb to FL 230 direct to 45°53'N, 101°35'W; direct to Dupree VORTAC, climbing so as to cross 46°30'N, 101°12'30''W at or above 8,000' MSL; crossing 46°19'N, 101°19'W at or above 11,000' MSL; crossing 46°13'N, 101°23'W at or below FL 190; crossing 45°53'N, 101°35'W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52'N, 100°53'W maintain 6600' MSL direct 46°39'N, 101°07'W; then at 6600' MSL make a right turn direct to 46°43'N, 101°24'W; then at 6600' MSL direct 47°40'N, 102°00'W the descending so as to cross 47°50'N, 101°56'W at 4000' MSL; then continue turn direct 47°47'N, 101°42'W; then direct at 4000' MSL to 47°35'N, 101°31'W, thence via the published route.


Minot (MOT)
ALTERNATE ENTRY POINT 47°41' 102°18'
SHORT LOOK START CLIMB TO 6600
Bismarck (BIS)
6600
V15
V2
EXIT POINT 46°52' 100°53'
Dupree (DPR)
23000
3500
4000
6600
Dickinson (DIK)
15 NM
V430
V439
Williston (ISN)
V2N
V120
V491
V465
(OB-7) FLINT ROCK ENTRY POINT 47°43' 106°35'
Miles City (MLS)
N
31 MAR 1966
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 47°48'N, 105°53'W to 47°57'N, 104°30'W and from 47°47'N, 103°03'W to 47°37'N, 101°45'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000' MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000' MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31'N, 102°32'W at 8,000' MSL; then descend direct so as to cross 47°42'30''N, 102°27'W at 6,000' MSL; then a descending right turn so as to cross 47°41'N, 102°18'W at 4000' MSL, thence via the published route.

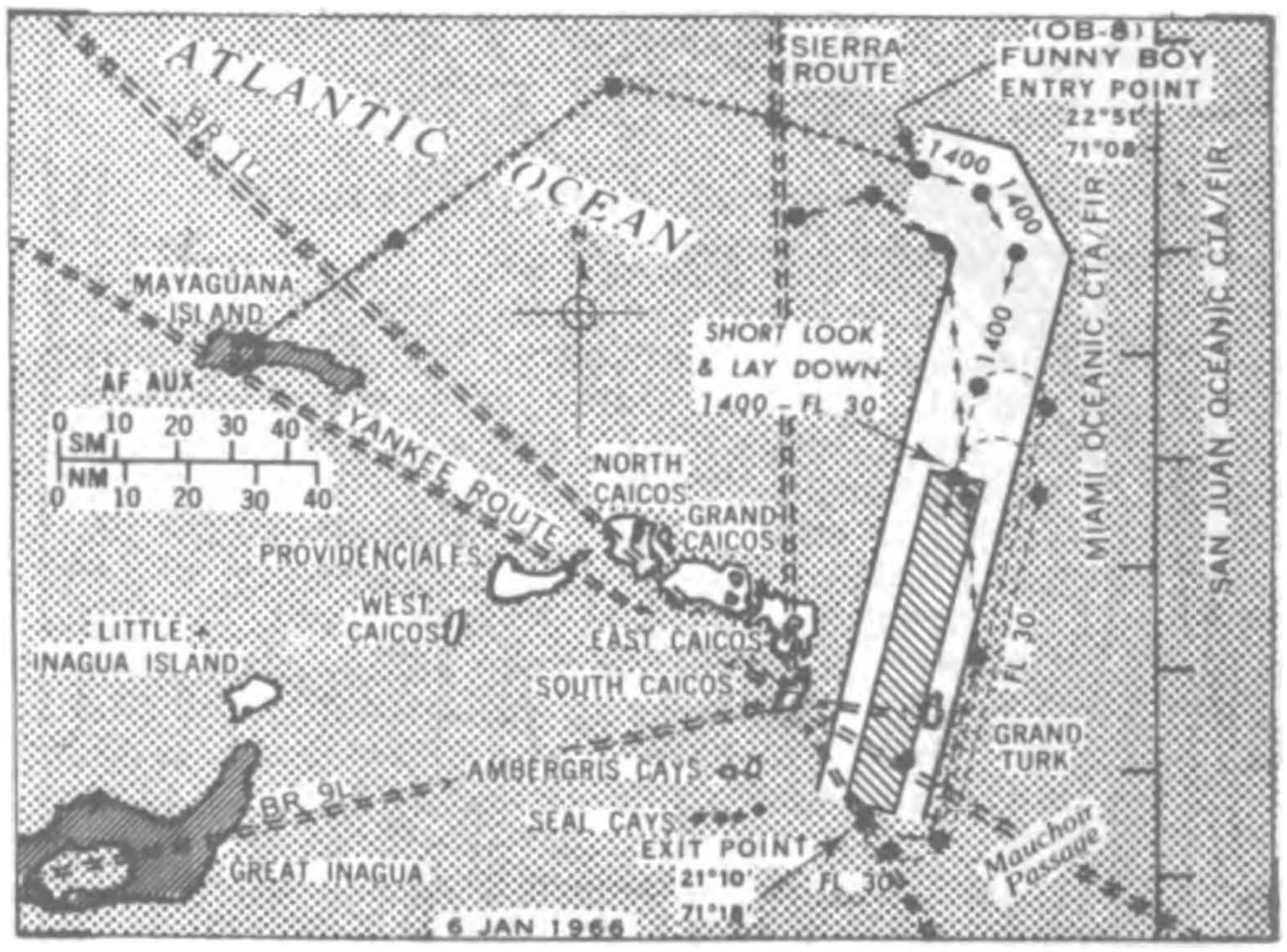
Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50'N, 105°30'W to 47°47'N, 103°03'W and from 47°07'N, 101°06'W to 46°52'N, 100°53'W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY OB-8

Revised Effective February 6, 1966

Aircraft shall cross 22°23'N, 73°02'W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41'N, 72°35'W (reporting point); start descent, cross 23°05'N, 72°00'W at FL 150; right turn, cross 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 71°08'W at 1400' MSL (the route entry point); maintain 1400' MSL direct 22°48'N, 70°58'W; turn right to 22°39'N, 70°53'W; direct 22°04'N, 71°03'W.


ATLANTIC OCEAN
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°51' 71°08'
1400
MAYAGUANA ISLAND
AF AUX
SM 0 10 20 30 40
NM 0 10 20 30 40
YANKEE ROUTE
SHORT LOOK & LAY DOWN 1400 - FL 30
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
EAST CAICOS
SOUTH CAICOS
LITTLE INAGUA ISLAND
AMBERGRIS CAYS
SEAL CAYS
EXIT POINT 21°10' 71°18'
FL 30
GREAT INAGUA
6 JAN 1966
GRAND TURK
Mouchoir Passage
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR

Short Look and Lay Down—After passing 22°04'N, 71°03'W, aircraft shall maintain between 1400' and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04'N, 71°03'W to 21°10'N, 71°18'W). After exiting the route at 21°10'N, 71°18'W, aircraft shall turn left, cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W, direct 21°35'N, 71°00'W; start climb, cross 22°00'N, 71°02'W at FL 110 or above cross 22°40'N, 71°06'W at FL 250 or above; left turn to 22°48'N, 71°16'W; cross 22°45'N, 71°30'W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10'N, 71°18'W, turn left cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W; direct 22°01'N, 70°53'W; turn left descend to cross 22°04'N, 71°03'W at 1400'; thence via the published route. Aircraft may proceed at FL 30 from 21°06'N, 71°08'W; direct 22°14'N, 70°49'W; turn left descend to cross 22°17′N, 70°59′W at 1400′; thence via the published route.

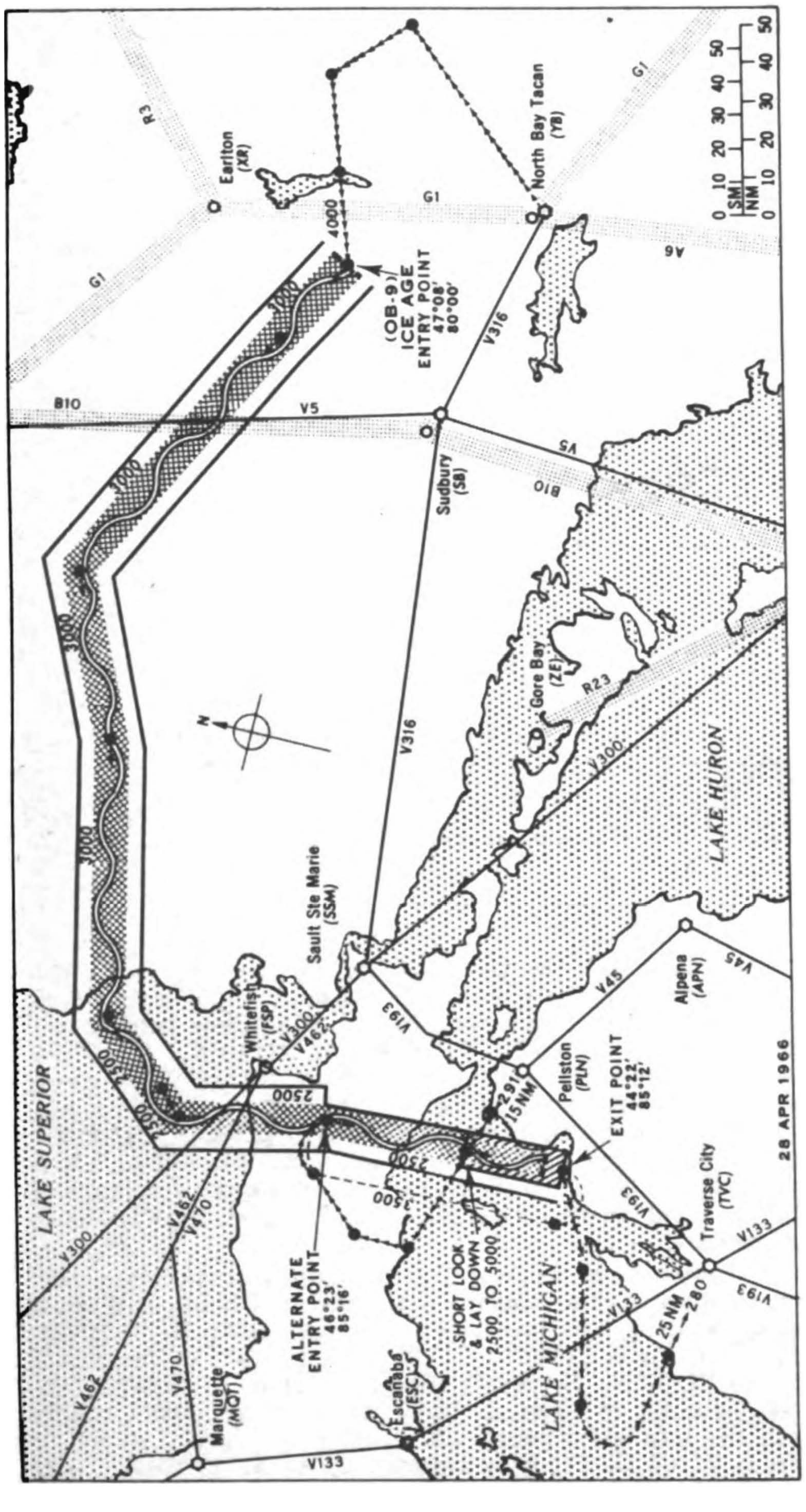
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB–9

Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°-04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°-25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.



Short Look and Lay Down—After passing 45°48′N, 85°-15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°-12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°-37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: from 47°08′N, 80°00′W to 45°27′N, 85°13′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30′′N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

IDAHO/NEVADA

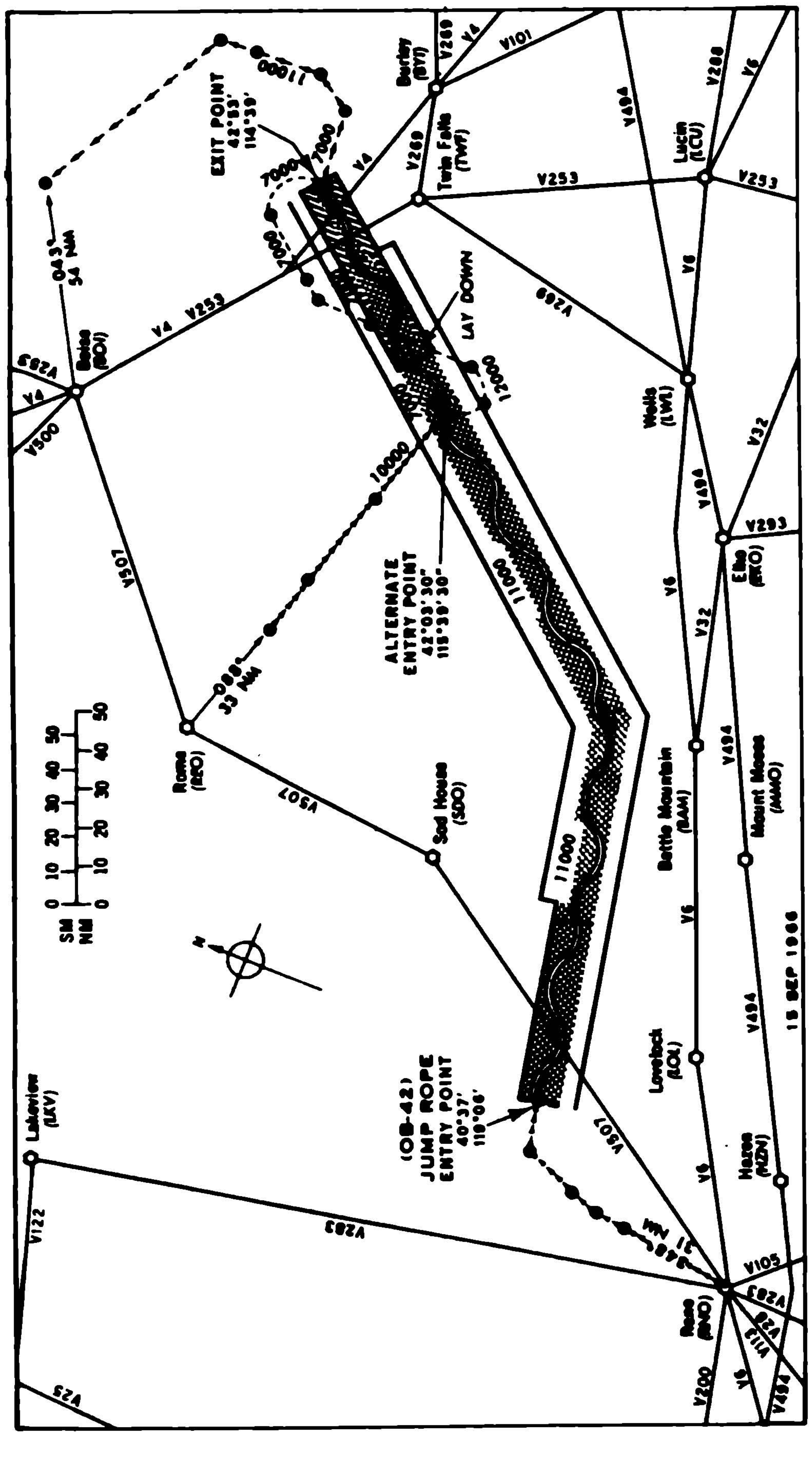
JUMP ROPE OB–42

Effective October 10, 1966 thru March 25, 1967

Aircraft shall cross the Reno, Nevada, VORTAC at FL 230 or as assigned by ARTCC; then at FL 230, or assigned altitude, proceed via the 348° radial of the Reno, Nevada, VORTAC until 31 nautical miles north (40°03′N, 119°35′W); then descend direct to 40°12′N, 119°34′W; then continue descent direct so as to cross 40°20′N, 119°30′W at FL180; then continue descent direct so as to cross 40°34′N, 119°23′W at or below 17,000′ MSL; then descend direct so as to cross the low level entry point at 40°37′N, 119°06′W at 11,000′ MSL; then at 11,000′ MSL direct to 40°56′N, 116°59′W; then at 11,000′ MSL direct to 42°03′30′′N, 115°39′30′′W; then descend so as to cross the entry to the bomb run corridor at 42°17′N, 115°23′W at 7,000′ MSL.

Lay Down—After passing 42°17′N, 115°23′W, aircraft shall maintain 7,000′ MSL through the bomb run corridor (4 nautical miles either side of centerline from 42°17′N, 115°23'W to 42°53'N, 114°39'W). After exiting the route (contact Salt Lake Center as soon as practicable on P125.6 S317.5) at 42°53'N, 114°39'W, aircraft shall turn right maintaining 7,000' MSL direct to 42°54'N, 114°10' W then turn left climbing so as to cross 43°03'N, 114°01'W at 11,000' MSL; then at 11,000' MSL direct to 43°20'N, 114°01'W; then climb direct to 43°30'N, 114°01' W; then turn left climbing so as to cross the Boise, Iadho, VORTAC 043° radial 54 nautical mile DME fix at FL 230.

Re-Entry—After completing the initial bomb run, aircraft schedule to execute an additional bomb run shall, after passing 42°53'N, 114°39'W, turn left maintaining 7,000' MSL to 43°02'30"N, 114°53'W (Contact Mtn. Home RAPCON on 259.1 mc); then at 7,000' MSL direct to 42°48'N, 115°11'W; then climb direct so as to cross 42°44'N, 115°16'W at 8,000' MSL; then turn left and climb to 42°30'N, 115°18'30"W; then continue climb direct so as to cross 42°02'N, 115°19'W at 12,000' MSL; then at 12,000' MSL turn right to 41°55'N, 115°30'W; then continue turn and descend so as to cross 42°07'N, 115°35'W at 7,000' MSL; thence via the published route.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 40°37'N, 119°06'W to 42°53'N, 114°39'W. VFR operations shall not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Rome, Oregon, VORTAC at FL 230 or as assigned by ARTCC, then at FL 230 or assigned FL, proceed via the 088° radial until 33 nautical miles east (42°25'N, 117°10'W); then descend direct so as to cross 42°20'N, 116°48'W at FL 200; then descend direct so as to cross 42°12'N, 116°14'30"W at 10,000' MSL then at 10,000' MSL direct to 42°03'30"N, 115°39'30"W; thence via the published route.

Route Width—The VFR route width is reduced to 2 nautical miles on the north side of centerline from 40°47'N, 118°00'W to 40°51'N, 117°32'W and from 41°21'N, 116°30'W to 41°37'N, 116°11'W. The VFR route width is reduced to 2 nautical miles on both sides of centerline from 42°37'N, 114°58'W to 42°53'N, 114°39'W. The IFR route width is reduced to 4 nautical miles on the north side of centerline from 40°37'N, 119°06'W to 40°47'N, 118°00'W and to 4 nautical miles on the southeast side of centerline from 42°37'N, 114°58'W to 42°53'N, 114°39'W.

Hours of Operation—24 hours daily, 7 days a week.

NEVADA

LITTLE SATIN OB–10

Revised Effective January 2, 1966

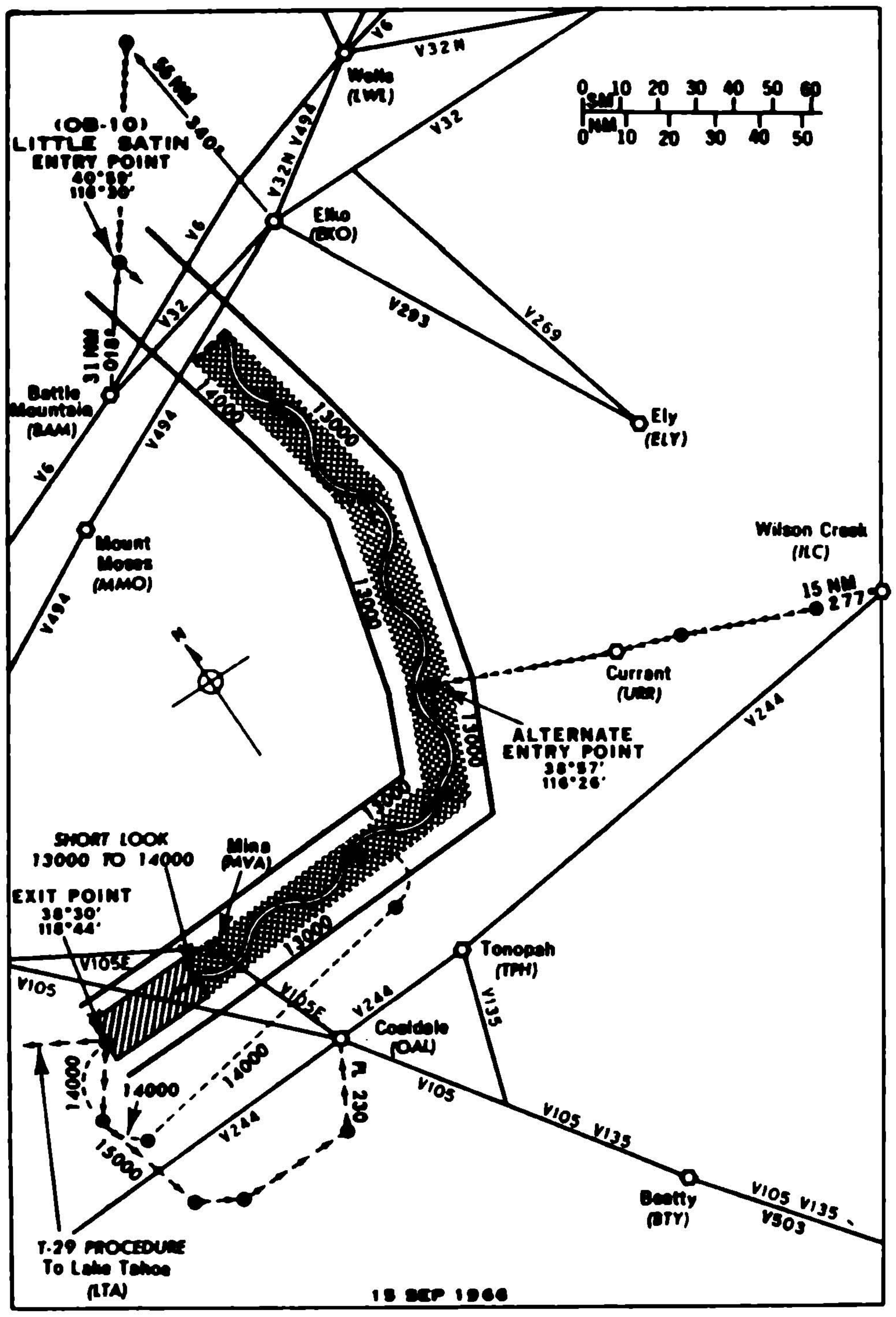
Aircraft shall cross 41°40'N, 115°49'W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59'N, 116°30'W (Battle Mountain VOR 018°/31) at 14,000' MSL, then 14,000' MSL direct 40°10'N, 116°17'W; then descend to 13,000' MSL direct 39°42'N, 116°10'W, then 13,000' MSL direct 38°57'N, 116°26'W, then 13,000' MSL direct 38°34'N, 116°40'W, then 13,000' MSL direct 38°31'N, 118°12'W.

Short Look—After passing 38°31'N, 118°12'W aircraft shall operate between a maximum altitude of 14,000' MSL and a minimum of 13,000' MSL thru the bomb run corridor (4 NM either side of centerline from 38°31'N, 118°12' W to 38°30' N, 118°44' W). After exiting the route at 38°30'N, 118°44'W aircraft shall start climb to cross 38°15'N, 118°57'W at 15,000' MSL; then maintain 15,000' MSL direct 37°48'N, 118°48'W; then climb so as to cross 37°42'N, 118°36'W at or above 17,000' MSL; then climb direct to cross 37°42'N, 118°00'W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30'N, 118°44'W, maintain 14,000' MSL direct 38°15'N, 118°57'W, then 14,000' direct 38°06'N, 118°50'W direct 38°19'N, 117°12'W; then descend direct to cross 38°33'N, 117°12'W at 13,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 40°30'N, 116°22'W to 38°31'N, 118°12'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21'N, 114°41'W); then descend direct to cross 38°34'N, 115°18'W at or below 15,000' MSL; then descend direct via the Currant, Nev. VOR to cross 38°57'N, 116°26'W at 13,000' MSL, thence via the published route.


V6
V32N
Wells
(LWL)
V32
56 NM
340°
(OB-10)
LITTLE SATIN
ENTRY POINT
40°59'
118°30'
V32N V494
Elko
(EKO)
V293
V269
Ely
(ELY)
31 NM
018°
Battle
Mountain
(BAM)
V494
Mount
Moses
(MMO)
N
0 10 20 30 40 50 60
SM
NM
0 10 20 30 40 50
14000
13000
Wilson Creek
(ILC)
15 NM
277°
Currant
(URR)
V244
ALTERNATE
ENTRY POINT
38°57'
116°26'
SHORT LOOK
13000 TO 14000
Mina
(MVA)
EXIT POINT
38°30'
118°44'
V105E
V105
Tonopah
(TPH)
V135
Coaldale
(OAL)
R 230
15000
V105 V135
Beatty
(BTY)
V105 V135
V503
T-29 PROCEDURE
To Lake Tahoe
(LTA)
15 SEP 1966

T–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15'N, 114°23'W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30'N, 118°44'W exit point of the bomb run corridor; then climb to 14,000' MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11'N, 120°16'W).

Hours of Operation—24 hours daily, 7 days a week.

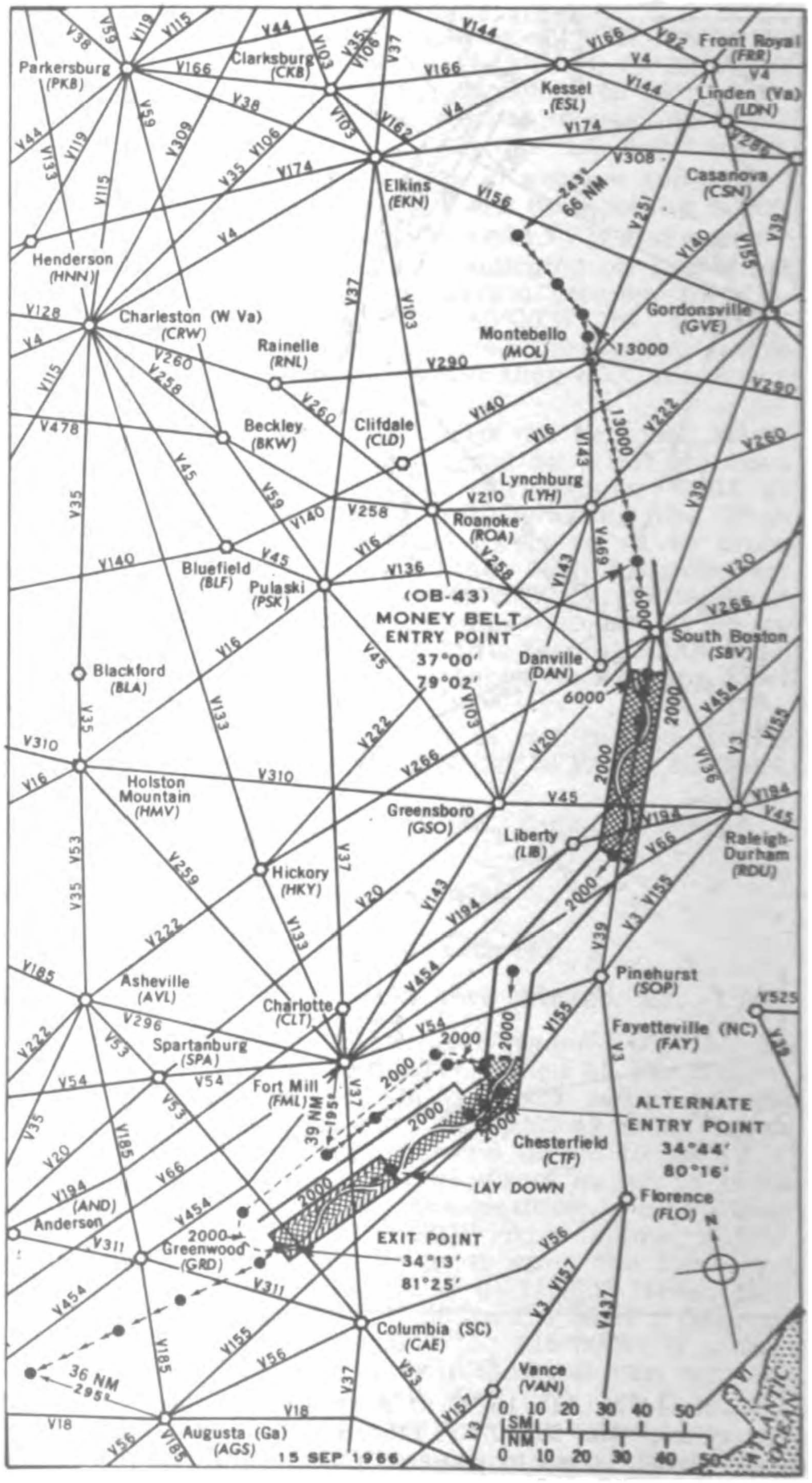
NORTH CAROLINA/SOUTH CAROLINA/VIRGINIA

MONEY BELT OB–43

Effective October 3, 1966 thru March 25, 1967

Aircraft shall cross the Front Royal, Va. VORTAC 243/66 DME Fix (38°29'N, 79°22'W) at FL 240, or as assigned by ARTCC, then descend direct so as to cross 38°15'N, 79°12'W at or below FL 200, then descend direct so as to cross 38°06'N, 79°06'W at 13,000' MSL; then at 13,000' MSL direct to 38°00'N, 79°05'W; then at 13,000' MSL direct to 37°12'N, 79°02'W; then descend direct so as to cross 37°00'N, 79°02'W at 6,000' MSL (Low Level Entry Point); then at 6,000' MSL direct to 36°30'N, 79°05'W; then at 6,000' MSL direct to 36°25'N, 79°07'W; then descend direct so as to cross 36°17'N, 79°10'W at 2,000' MSL; then at 2,000' MSL direct to 35°44'N, 79°23'W; then at 2,000' MSL direct to 35°17'N, 80°01'W; then at 2,000' MSL direct to 34°46'N, 80°11'W; then at 2,000' MSL direct to 34°30'N, 80°47'W.

Lay Down—After passing 34°30'N, 80°47'W, aircraft shall maintain 2,000' MSL through the bomb run corridor (4 NM either side of centerline from 34°30'N, 80°47'W to 34°13'N, 81°25'W). After exiting the route at 34°13' N, 81°25'W, aircraft shall climb so as to cross 34°10'N, 81°32'W at or above 5,000' MSL (contact Atlanta Center on 322.4 mc); then climb direct so as to cross 34°03'N, 81°58'W at or above 12,000' MSL; then climb direct so as to cross 33°57'N, 82°18'W at 17,000' MSL; then climb direct so as to cross 33°48'N, 82°47'W at FL 240 (295/36 Augusta, Ga. VORTAC).


Parkersburg
(PKB)
Clarksburg
(CKB)
Kessel
(ESL)
Front Royal
(FRR)
Linden (Va)
(LDN)
Casanova
(CSN)
Elkins
(EKN)
243°
66 NM
Henderson
(HNN)
Charleston (W Va)
(CRW)
Rainelle
(RNL)
Montebello
(MOL)
13000
Gordonsville
(GVE)
Beckley
(BKW)
Clifdale
(CLD)
Lynchburg
(LYH)
Roanoke
(ROA)
Bluefield
(BLF)
Pulaski
(PSK)
(OB-43)
MONEY BELT
ENTRY POINT
37°00'
79°02'
Danville
(DAN)
6000
South Boston
(SBV)
2000
Blackford
(BLA)
Holston
Mountain
(HMV)
Greensboro
(GSO)
Liberty
(LIB)
Raleigh-
Durham
(RDU)
Hickory
(HKY)
Asheville
(AVL)
Charlotte
(CLT)
Pinehurst
(SOP)
Fayetteville (NC)
(FAY)
Spartanburg
(SPA)
Fort Mill
(FML)
39 NM
195°
Chesterfield
(CTF)
ALTERNATE
ENTRY POINT
34°44'
80°16'
LAY DOWN
Florence
(FLO)
N
(AND)
Anderson
Greenwood
(GRD)
EXIT POINT
34°13'
81°25'
Columbia (SC)
(CAE)
36 NM
295°
Vance
(VAN)
Augusta (Ga)
(AGS)
0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
ATLANTIC OCEAN
15 SEP 1966

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 34°13'N, 81°25'W, maintain 2,000' MSL and turn right to 34°24'N, 81°35'W; then at 2,000' MSL direct to 34°54'N, 80°28'W; then at 2,000' MSL turn right to intercept the route at 34°42'N, 80°20' W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000'; visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 36°30'N, 79°05'W to 35°44'N, 79°23' W; and from 34°56'30"N, 80°07'30"W to 34°13'N, 81°25'W. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross 34°35'N, 81°07'W (195/39 DME Fix of the Charlotte, North Carolina, VORTAC) at FL 240, or as assigned by ARTCC; then descend direct so as to cross 34°44'N, 80°49'30"W at 16,000' MSL; then descend direct so as to cross 34°55'30"N, 80°25'W at 5,000' MSL; then turn right and descend so as to cross 34°54'N, 80°14'30"W at 2,000 MSL; then at 2,000' MSL continue turn to 34°44'N, 80°16'W; thence via the published route.

Route Width—The IFR route width is reduced to 4NM either side of centerline from 37°00'N, 79°02'W to 34°42'N, 80°20'W and to 4 NM on the south side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

The VFR Route width is reduced to 2NM on either side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

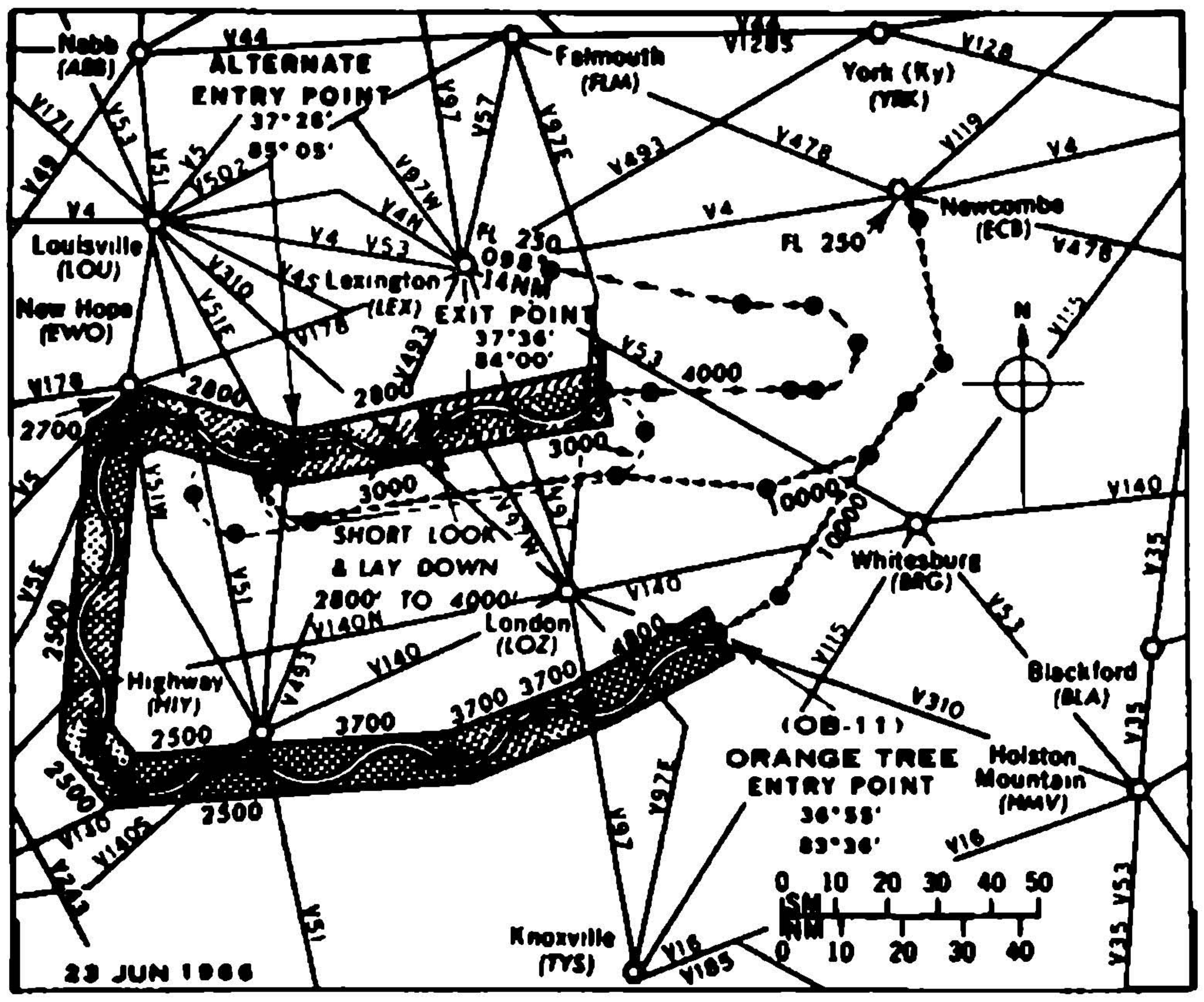
Hours of Operation—Primary Entry from 2300Z to 1300Z and from 1400Z to 2000Z 7 days per week. Alternate Entry from 2300Z to 1300Z 7 days per week.

KENTUCKY/TENNESSEE

ORANGE TREE OB-11

Revised Effective June 19, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05'N, 82°53'W; then start descending to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01'N, 83°24'W; then start descent so as to cross route entry at 36°55'N, 83°36'W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45' N, 84°01'W; then descend so as to cross 36°41'N, 84°14' W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°35'N, 84°32'W; direct 36°32'N, 85°15'W; descend so as to cross 36°32'N, 85°21'W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31'N, 85°40'W; then turn right to 36°36'N, 85°49'W; direct 37°28'N, 85°44'W; then turn right climb to cross 37°32'N, 85°35'W at 2800' MSL; then at 2800' MSL direct 37°26'N, 85°05'W; then at 2800 feet MSL direct 37°30'N, 84°38'W.



Short Look and Lay Down—After passing 37°30'N, 84°38' W aircraft shall maintain between 2800' and 4000'. feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30'N, 84°38'W to 37°36'N, 84°00'W). After exiting the route at 37°36'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36'N, 83°20'W; then start climb direct 37°36'N, 83°15'W; cross 37°44'N, 83°05'W at or below 9,000 feet MSL; continue climb direct 37°50'N, 83°15'W; then climbing direct so as to cross 37°51'N, 83°30'W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3 000 feet MSL continue right turn to 37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28' N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53' W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3,00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800' MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

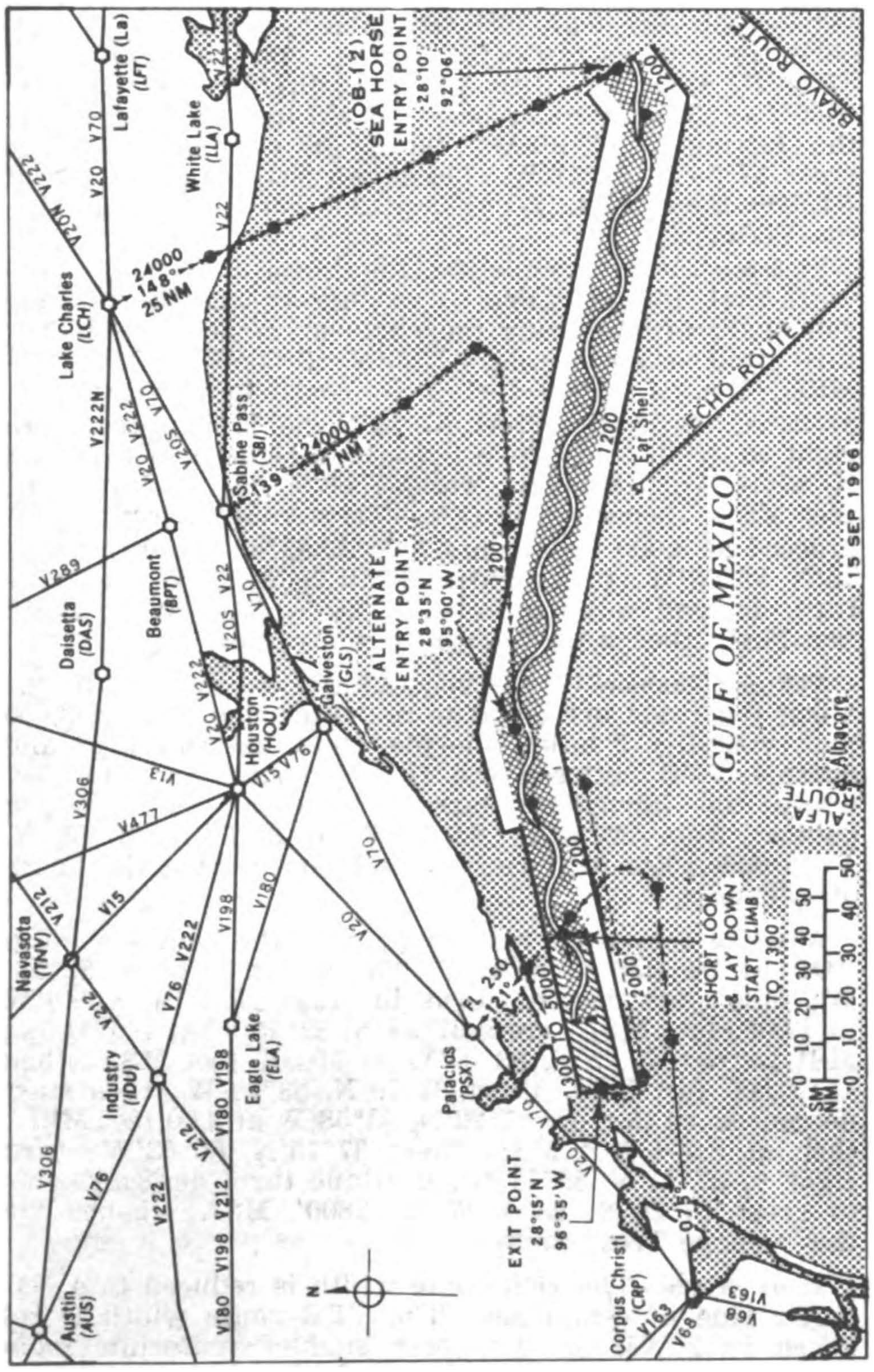
SEA HORSE OB-12

Revised Effective February 27, 1966

Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix;

start descent, cross 29°31'N, 92°47'W at FL 190, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1200' MSL (low level entry point). Maintain 1200' MSL, turn right to 28°03'N, 92°16'W, direct 28°35'N, 95°00'W. direct 28°24'N, 95°53'W.

Short Look and Lay Down—After passing 28°24'N, 95°53' W climb to 1300' MSL and maintain between 1300' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 28°24'N, 95°53'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35' W, the route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.



Lafayette (La) (LFT)
White Lake (LLA)
Lake Charles (LCH)
Sabine Pass (SBI)
Beaumont (BPT)
Daisetta (DAS)
Galveston (GLS)
Houston (HOU)
Navasota (TNV)
Industry (IDU)
Eagle Lake (ELA)
Palacios (PSX)
Austin (AUS)
Corpus Christi (CRP)
(OB-12) SEA HORSE ENTRY POINT 28°10' 92°06'
ALTERNATE ENTRY POINT 28°35'N 95°00'W
EXIT POINT 28°15'N 96°35'W
SHORT LOOK & LAY DOWN START CLIMB TO 1300
24000 148° 25 NM
24000 47 NM
139
1200
5000
FL 250 121°
GULF OF MEXICO
BRAVO ROUTE
ECHO ROUTE
ALFA ROUTE
Eel Shell
Albacore
15 SEP 1966
0 10 20 30 40 50 SM
0 10 20 30 40 50 NM
V20 V70 V222 V222N V205 V22 V289 V306 V477 V15 V76 V212 V198 V180 V163 V68 V194

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°35'W turn left so as to cross 28°05'N, 96°32'W at 2,000' MSL; maintain 2000' MSL direct 28°18'N, 95°15'W, turn left descending so as to intercept the route at 28°31'N, 95°19' W at 1200' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the surface between the following points: From 28°10'N, 92°06'W to 28°19'N, 96°16'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the surface.

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°37'N, 94°06'W at 1200' MSL, direct 28°35'N, 95°00'W, thence via the published route.

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30'N, 95°24'W to 28°15'N, 96°35'W.

Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

SILVER BAY OB-13

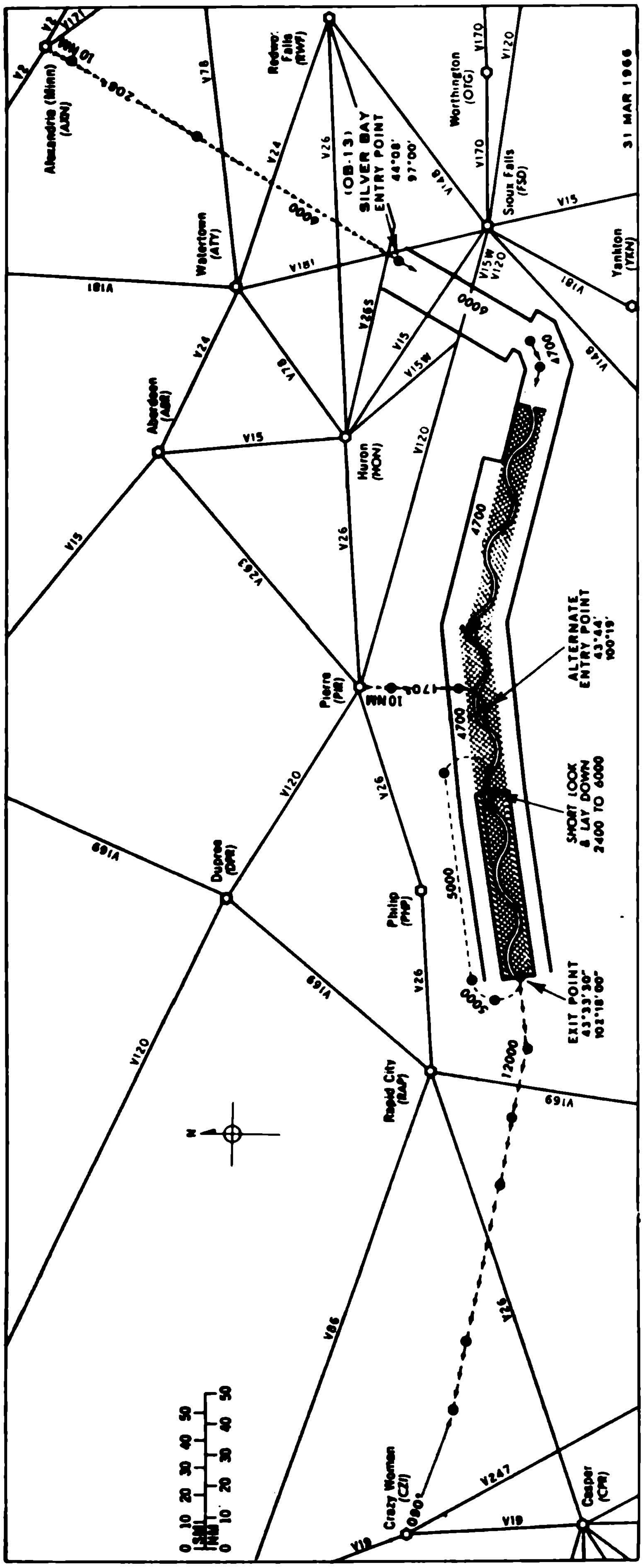
Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10'N, 96°00'W at 6000' MSL; then at 6000' MSL direct 44°08'N, 97°00'W (low level entry point); then at 6000'MSL direct 43°27'N, 97°37'W; then turn right descending so as to cross 43°24'N, 97°48'W at 4700' MSL; then at 4700' MSL direct 43°47'N, 99°45'W; then at 4700' MSL direct to 43°42'N, 100°56'W.

Short Look and Lay Down—After passing 43°42'N, 100°56'W, aircraft shall maintain between 2400' MSL and 6000' MSL through the bomb run corridor (4 NM either side of centerline from 43°42'N, 100°56'W to 43°33'30''N, 102°18'W). The minimum IFR altitude through the corridor is 4700' MSL. After exiting the route at 43°33'30''N, 102°18'W aircraft shall climb so as to cross 43°30'N. 102°50'W at 12,000' MSL; then at 12,000' MSL direct to 43°34'N, 103°20'W then climb direct so as to cross 43°37'30''N, 103°50'W at FL 180 then climb direct so as to cross 43°46'N, 105°00'W at or below FL 230 then climb direct so as to cross 43°49'N, 105°30'W (CZI 090/42 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33'30''N, 102°18'W turn right and climb or descend so as to cross 43°40'N, 102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°56'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30''N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30''N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.


Alexandria (Minn) (AXN)
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
Pierre (PIR)
Dupree (DPR)
Philip (PHP)
Rapid City (RAP)
Crazy Woman (CZI)
Casper (CPR)
Redwood Falls (RWF)
Worthington (OTG)
Sioux Falls (FSD)
Yankton (YKN)
(OB-13) SILVER BAY ENTRY POINT 44°08' 97°00'
ALTERNATE ENTRY POINT 43°44' 100°19'
SHORT LOOK & LAY DOWN 2400 TO 6000
EXIT POINT 43°33'30" 102°18'00"
31 MAR 1966
6000
4700
5000
12000
V15
V24
V26
V120
V148
V181
V86
V19
V247
0 10 20 30 40 50

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000′ MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000′ MSL or assigned altitude until 10 NM south (44°13′N, 100°10′W); then descend direct to 43°52′N, 100°10′W; then turn right descending so as to cross 43°44′N, 100°19′W at 4700′ MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08′N, 97°00′W to 43°29′N, 97°35′W and 4 NM north of centerline between 43°29′N, 97°35′W to 43°32′N, 98°30′W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41′N, 99°13′W to 43°47′N, 99°45′W.

Hours of Operation—24 hours daily seven days per week.

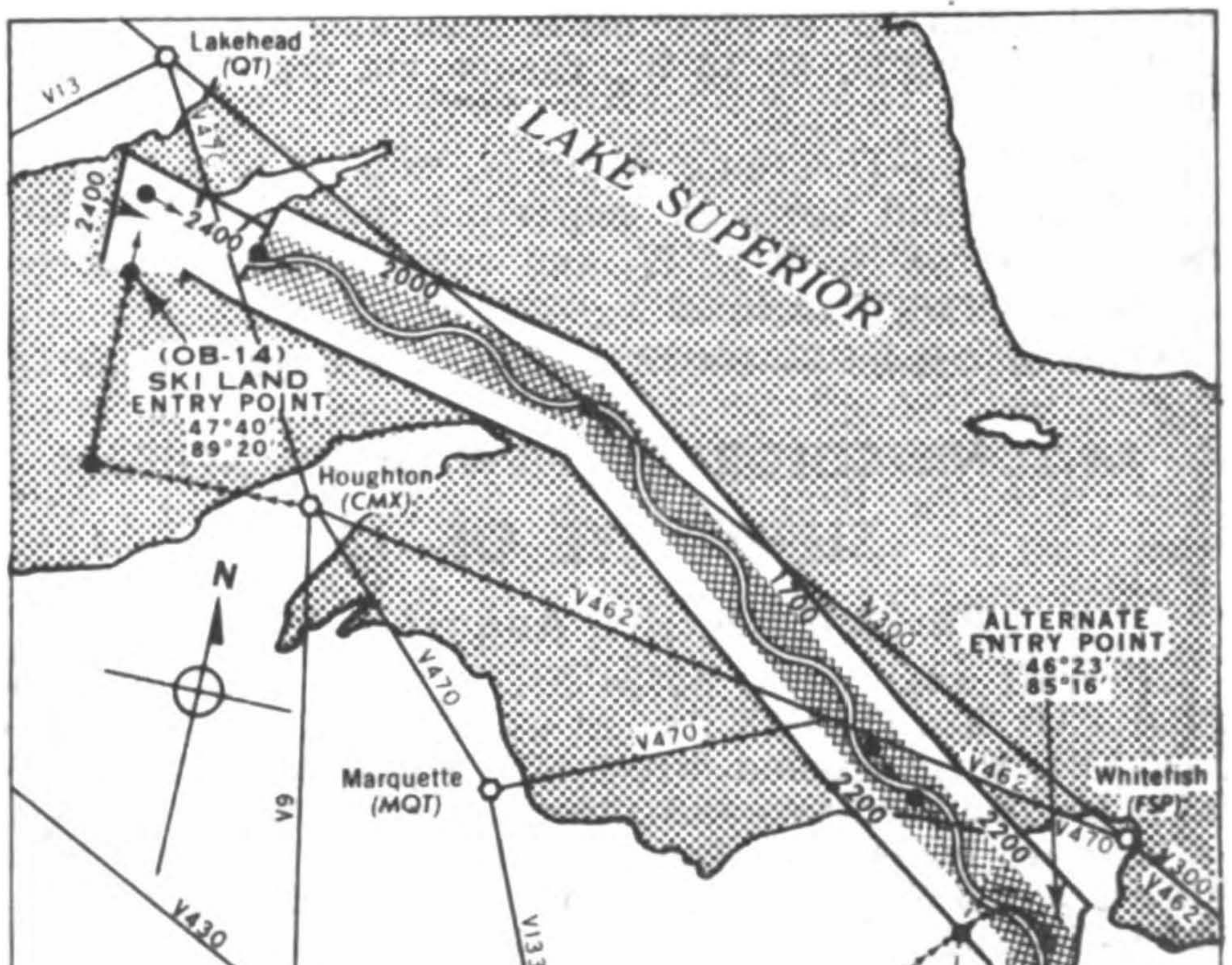
MICHIGAN

SKI LAND OB–14

Revised Effective June 24, 1965

Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10′N, 89°20′W at 11,000′ MSL; then turn right continuing descent so as to cross the route entry point at 47°40′N, 89°20′W at 2400′ MSL, then at 2400′ MSL direct 47°52′′N, 89°20′W, then at 2400′ MSL direct 47°48′N, 88°55′W; then descend to 2000′ MSL direct 47°35′N, 87°25′W; then descend to 1700′ MSL direct 46°49′N, 86°06′W; then climb so as to cross 46°42′N, 85°52′W at 2200′MSL, then at 2200′ MSL direct 46°23′N, 85°16′W; then climb to 2500′ MSL direct 45°48′N, 85°15′W.

Short Look and Lay Down—After passing 45°48′N, 85°15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side


Lakehead (QT)
LAKE SUPERIOR
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
ALTERNATE ENTRY POINT 46°23' 85°16'
Whitefish (FSP)
Marquette (MQT)
Iron Mountain (IMT)
Escanaba (ESC)
Menominee (MNM)
Green Bay (GRB)
(OSH) Oshkosh
Traverse City (TVC)
(PLN) Pellston
SHORT LOOK & LAY DOWN 2500 TO 5000
EXIT POINT 45°22' 85°12'
LAKE MICHIGAN
2400
2000
1700
2200
3500
25NM 280°
291° 15NM
V9
V430
V470
V133
N
SM
NM
0 10 20 30 40 50
28 APR 1966

of centerline from 45°48'N, 85°15'W to 45°22'N, 85°-12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°-16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°-20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

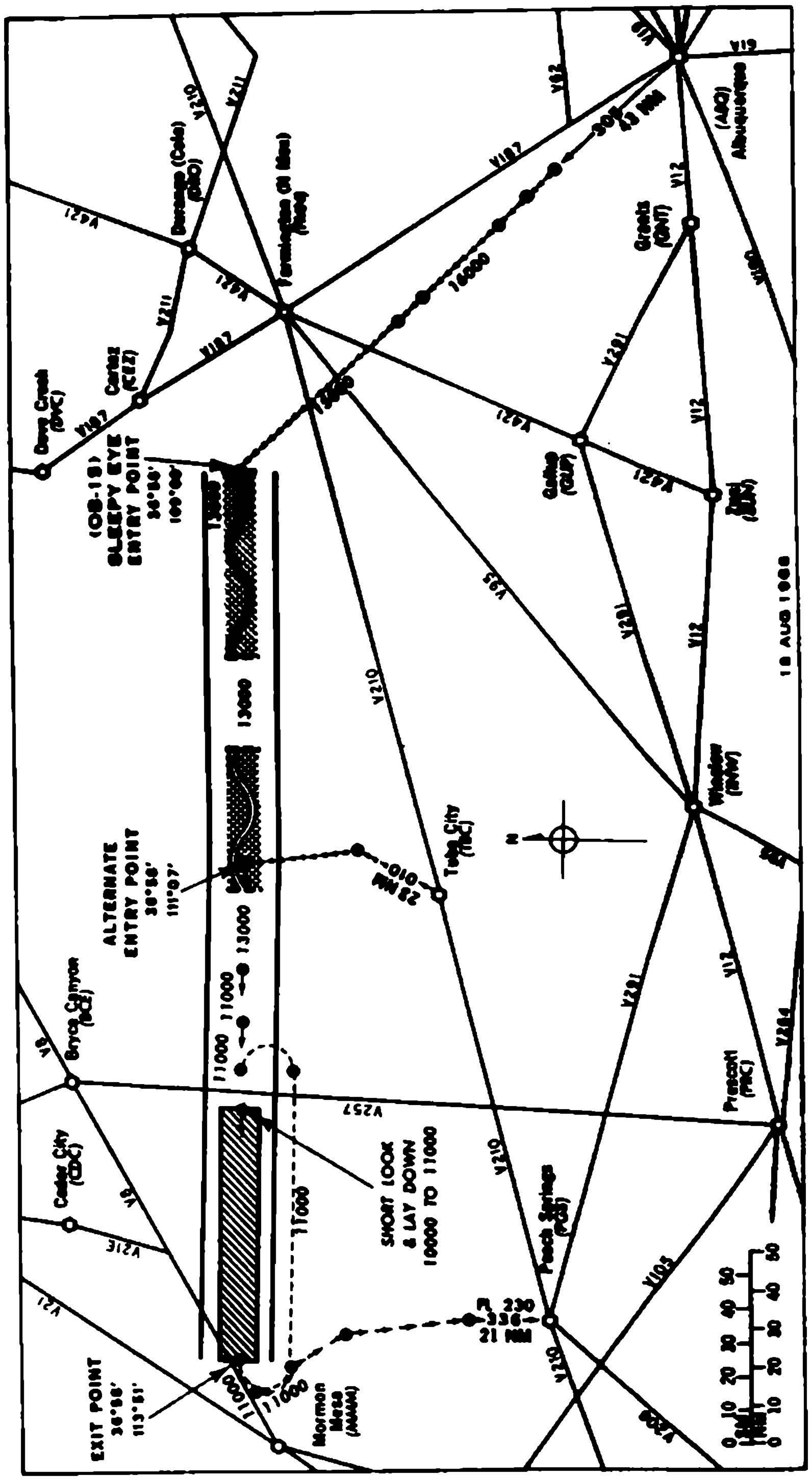
ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE OB-15

Revised Effective August 4, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°49'N, 107°-42'W at 16,000' MSL; then maintain 16,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.

Short Look and Lay Down—After passing 36°58'N, 112°-29'W aircraft shall operate between 10,000' and 11,000' MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°-51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°-00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°-58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30"N, 113°32'W).


(OB-15) SLEEPY EYE ENTRY POINT 36°58' 109°00'
ALTERNATE ENTRY POINT 36°58' 111°07'
EXIT POINT 36°58' 113°51'
SHORT LOOK & LAY DOWN 10000 TO 11000
FL 230 336 21 NM
16000
15000
13000
13000
11000
11000
11000
11000
Albuquerque (ABQ)
Grants (GNT)
Gallup (GUP)
Zuni (ZUN)
Winslow (INW)
Prescott (PRC)
Peach Springs (PGS)
Tuba City (TBC)
Bryce Canyon (BCE)
Cedar City (CDC)
Dove Creek (DVC)
Cortez (CEZ)
Durango (Cole) (DRO)
Farmington (Ol Mis) (FMN)
Mormon Mesa (MMM)
V12
V19
V187
V210
V211
V291
V8
V21
V327
V105
V264
18 AUG 1966
0 10 20 30 40 50

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left direct to cross 36°58'N, 112°16'W at or below 11,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°58N, 111°-16'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07'30"N, 111°16'W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then

maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28'N, 111°04'W); then descend direct to cross 36°58'N, 111°07'W at 13,000' MSL; thence via published route.

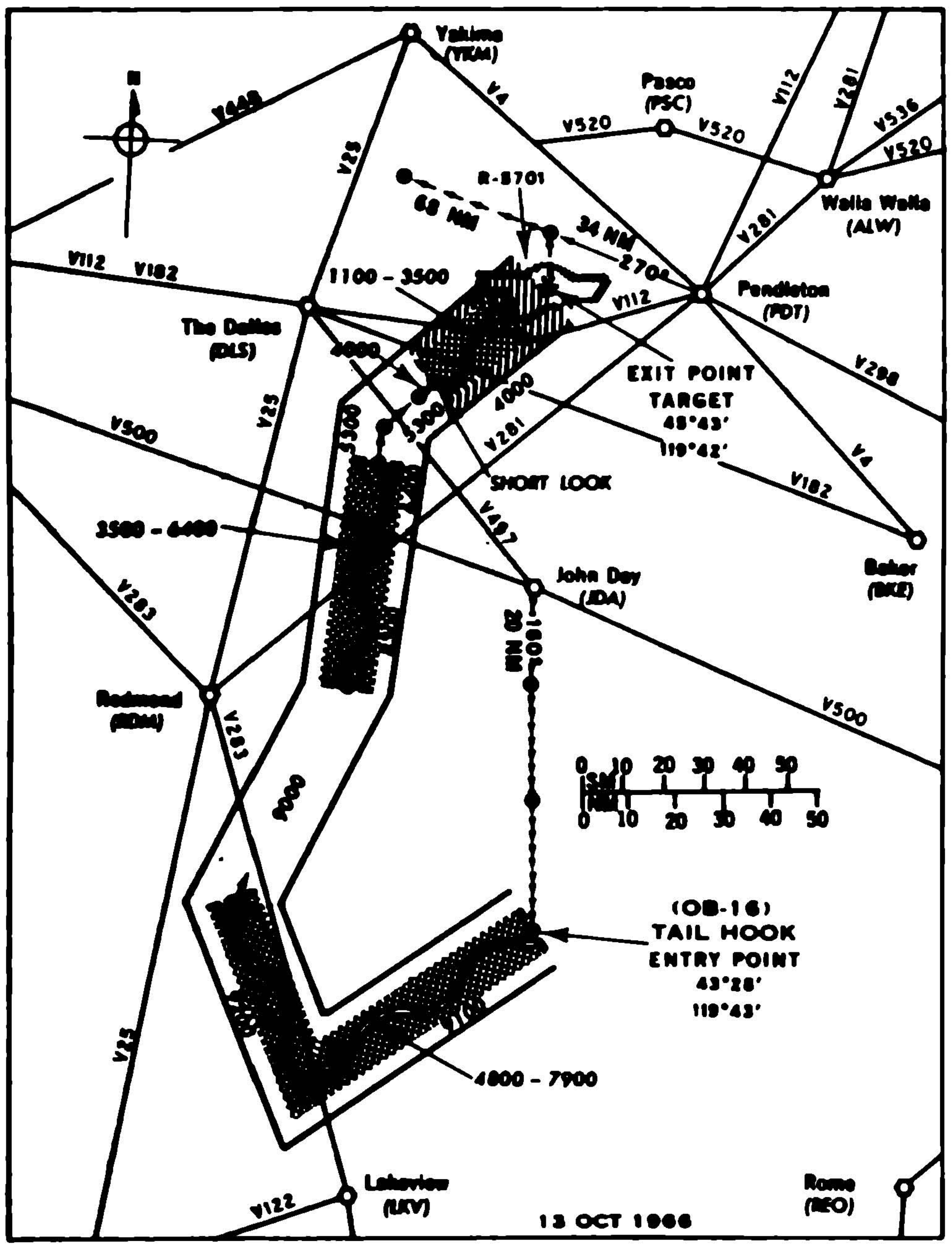
Hours of Operation—24 hours daily, 7 days a week.

OREGON

• TAIL HOOK OB-16

Revised Effective September 25, 1966

Aircraft shall cross the John Day, Oregon VOR (reporting point) at FL 230, or as assigned by ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 NM south of the John Day VOR (44°19'N, 119°43'W); then descend to cross 43°55'N, 119°43'W at 10,000' MSL; then descend to cross 43°28'N, 119°43'W (entry point) at 9,100' MSL; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.



Short Look—After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R-5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 NM fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 NM fix at FL 230.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R-5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE OB-17

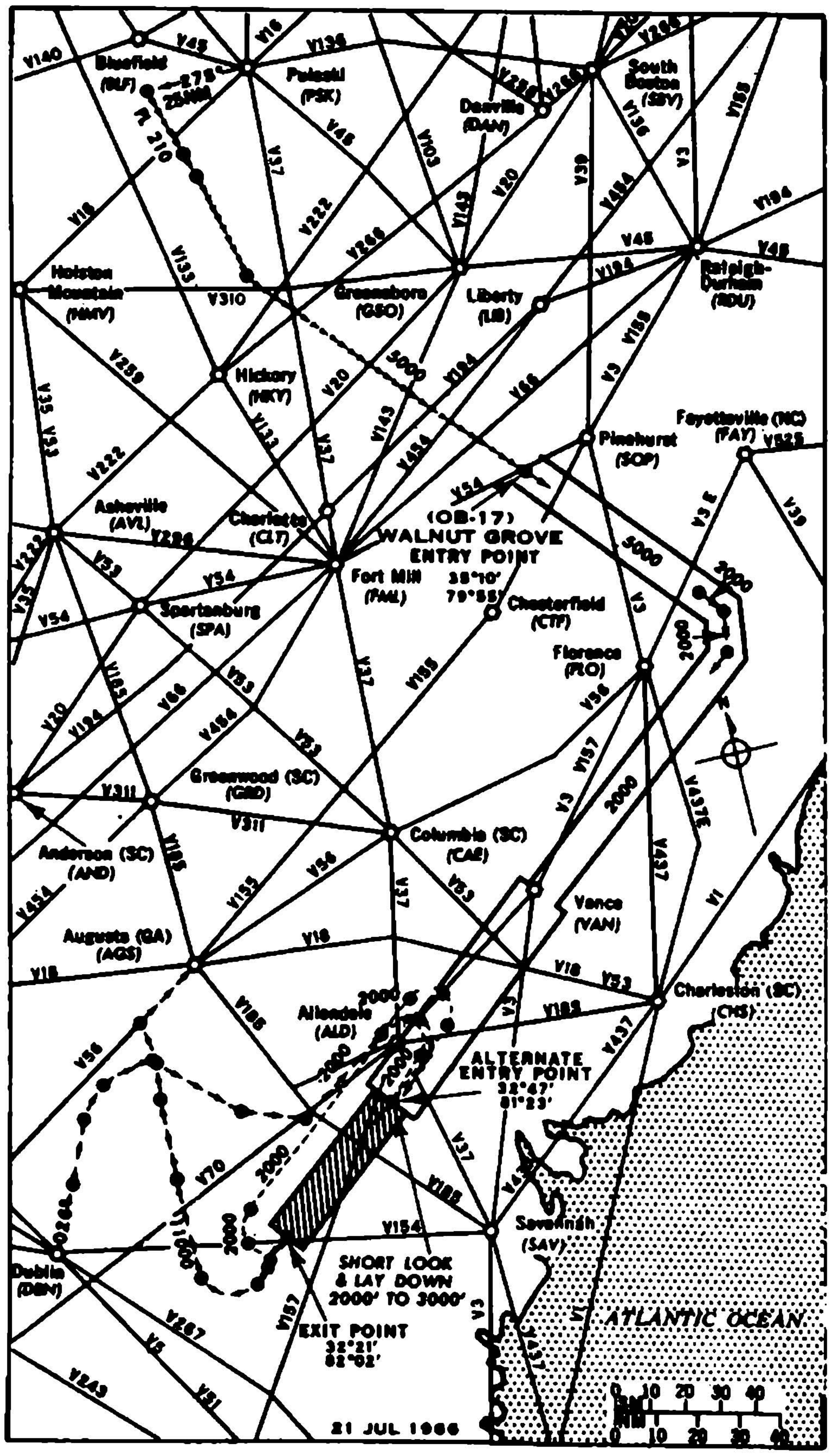
Revised Effective January 6, 1966

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°13'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 81°23'W.

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000' MSL through the bomb run corridor (4 NM either side of center line from 32°47'N, 81°23'W to 32°21'N, 82°02'W). After exiting the route at 32°21'N, 82°02'W, aircraft shall climb to or maintain 3,000' MSL to 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4,000' MSL; cross 32°12'N, 82°15'W at 6,000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30"W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21'N, 82°02'W, turn right and descend or maintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' MSL continue turn to 32°30'N, 82°11'W; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04'N, 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 81°23'W; thence via the published route. Aircraft may proceed at 2000' MSL from 32°30'N, 82°11'W, direct 33°11'N, 81°09'30"W; turn right to 33°11'N, 80°59'30" W; continue turn to 33°02'N, 81°01'W; thence via published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 026° radial so as to cross 32°47'N, 82°59'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000' MSL; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04', 81°10'W; con-


Bluefield (BLF)
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South Boston (SBV)
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Fayetteville (NC) (FAY)
Pinehurst (SOP)
Asheville (AVL)
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(OB-17) WALNUT GROVE ENTRY POINT 35°10' 79°55'
Fort Mill (FML)
Chesterfield (CTF)
Spartanburg (SPA)
Florence (FLO)
Greenwood (SC) (GRD)
Anderson (SC) (AND)
Columbia (SC) (CAE)
Vance (VAN)
Augusta (GA) (AGS)
Charleston (SC) (CHS)
Allendale (ALD)
ALTERNATE ENTRY POINT 32°47' 81°23'
Savannah (SAV)
Dublin (DBN)
SHORT LOOK & LAY DOWN 2000' TO 3000'
EXIT POINT 32°21' 82°02'
ATLANTIC OCEAN
N
21 JUL 1966

tinue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26'N, 80°25'W to 32°47'N, 81°23'W the route width is reduced to 6 NM.

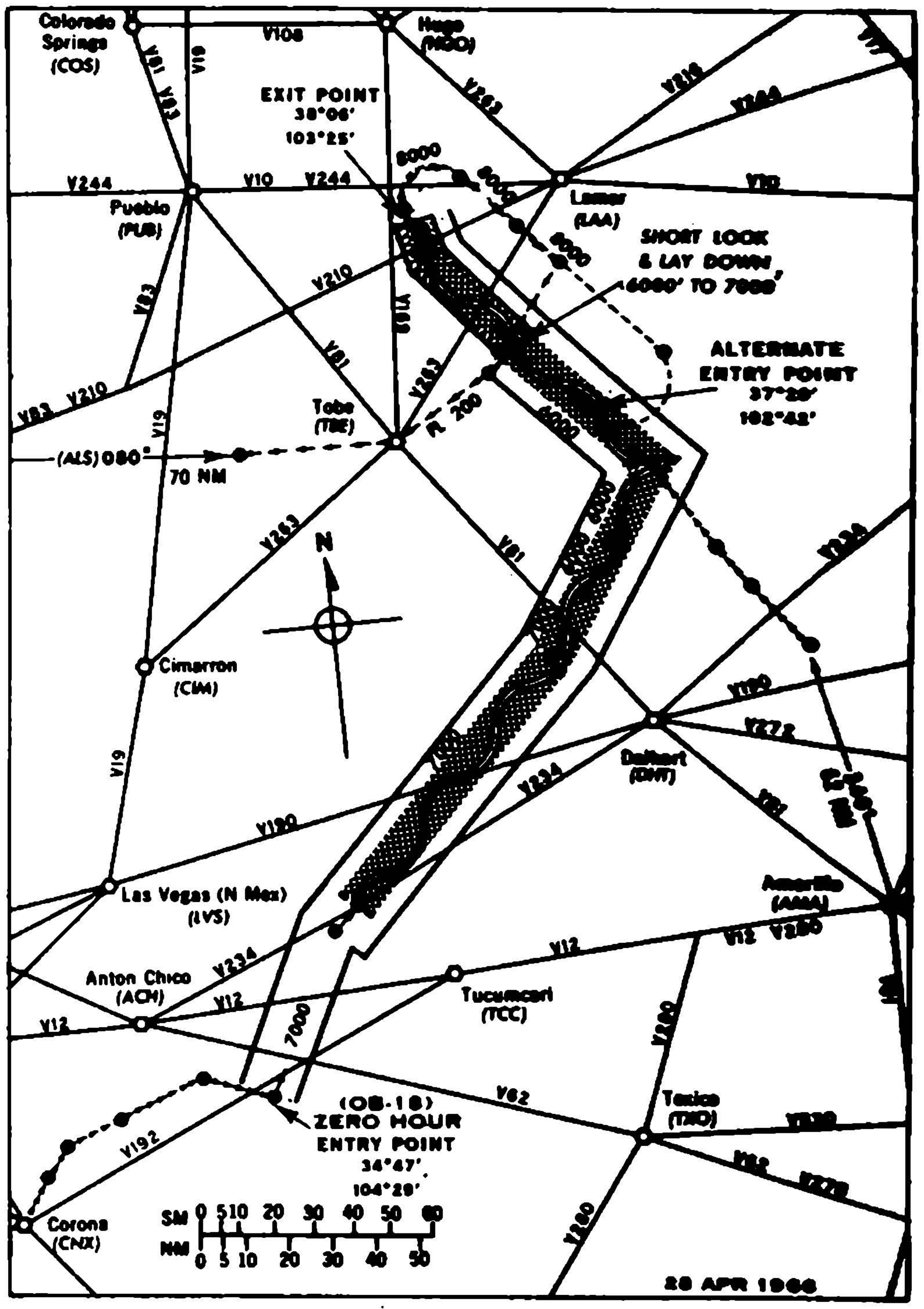
Hour of Operation—24 hours daily, 7 days a week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB-18

Revised Effective June 19, 1966

Aircraft shall cross 34°22'N, 105°40'30''W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33'N, 105°33'W at or below FL 230; then descend direct to cross 34°40'N, 105°28'W at FL 220; then descend direct to cross 34°45'N, 105°12'W at or below 17,000' MSL; then descend direct to cross 34°53'N, 104°48'W at 10,000' MSL; then descend direct to cross the route entry point at 34°47'N, 104°29' W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104°08'W; then 7000' MSL direct to 36°22'N, 103°00'W; then 7000' MSL direct to 36°37'N, 102°49'W; then descend direct to cross 36°49'N, 102°40'W at 6000' MSL; then 6000' MSL direct to 37°06'N, 102°-27'W; then 6000' MSL direct to 37°36'N, 103°00'W.


Colorado Springs (COS)
Hugo (HGO)
EXIT POINT 38°06' 103°25'
Pueblo (PUB)
Lamar (LAA)
SHORT LOOK & LAY DOWN, 6000' TO 7000'
ALTERNATE ENTRY POINT 37°29' 102°42'
Tobe (TBE)
(ALS)080°
70 NM
N
Cimarron (CIM)
Dalhart (DHT)
Las Vegas (N Mex) (LVS)
Amarillo (AMA)
Anton Chico (ACH)
Tucumcari (TCC)
(OB-18) ZERO HOUR ENTRY POINT 34°47' 104°29'
Texico (TXO)
Corona (CNX)
SM 0 5 10 20 30 40 50 60
NM 0 5 10 20 30 40 50
28 APR 1966

Short Look and Lay Down—After passing 37°36'N, 103°-00'W, aircraft shall maintain between 6000' MSL and 7000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°36'N, 103°00'W to 37°57'N, 103°-22'W to 38°06'N, 103°25'W). After exiting the route at 38°06'N, 103°25'W climb direct to cross 38°09'N, 103°-26'W at 8000' MSL, turn right, maintain 8000' MSL to 38°15'N, 103°10'W, then 8000' MSL direct to 38°02'N, 102°55'W, then climb direct to cross 37°53'N, 102°45'W at 9000' MSL, continue climb direct to cross 37°30'N, 103°08'W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16'N, 104°21'W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06'N, 103°25'W, climb direct to cross 38°09'N, 103°26'W at 8000' MSL, maintain 8000' MSL right turn to 38°15'N, 103°10'W, then 8000' MSL direct 37°29'N, 102°18'W; then turn right descending to cross 37°14'N, 102°35'W at 6000' MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate

VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 35°30′N, 104°01′W to 38°06′N, 103°25′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross 36°19′N, 101°51′W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34′N, 102°03′W at 17,000′ MSL; then descend direct to cross 36°44′N, 102°11′W at 14,000′ MSL; then descend direct to cross 37°06′N, 102°27′W at 11,000′ MSL; then descend direct to cross 37°20′N, 102°42′W at 6000′ MSL; thence via the published route.

Route Width—The route width from 34°47′N, 104°29′W to 35°24′N, 104°08′W is reduced to 4 NM on the east side of centerline, and from 37°36′N, 103°00′W, to 38°06′N, 103°25′W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective October 8, 1966:

AUTOMATIC DIRECTION FINDING

Location	Procedure	Action
Columbia, S.C—Columbia Metro Arpt	No. 1, Amdt. 12	**Revised**
Columbus, Ga.—Muscogee County Arpt	No. 1, Amdt. 15	**Revised**
Fall River, Mass.—Fall River Muni Arpt	No. 1, Amdt. 1	**Revised**
Great Bend, Kans.—Great Bend Muni Arpt	No. 1, Orig	**Established**
North Platte, Neb.—Lee Bird Fld (Muni)	No. 1, Amdt. 2	**Revised**
North Platte, Neb.—Lee Bird Fld (Muni)	No. 2, Amdt. 1	**Revised**
Norwood, Mass.—Norwood-Memorial Arpt	No. 1, Amdt. 5	**Revised**

VHF OMNIRANGE

College Station, Tex.—Easterwood Fld	No. 1, Amdt. 6	**Revised**
Columbus, Ga.—Muscogee County Arpt	No. 1, Amdt. 9	**Revised**
Moses Lake, Wash.—Grant County Arpt	No. 1, Amdt. 1	**Revised**
North Platte, Neb.—Lee Bird Fld (Muni)	No. 1, Amdt. 10	**Revised**
Plymouth, Mass.—Plymouth Muni Arpt	No. 1, Amdt. 1	**Revised**
Salina, Kans.—Salina Muni Arpt	No. 1, Amdt. 6 efctv 30 July 66	**Cancelled**
Taunton, Mass.—Taunton Muni Arpt	No. 1, Amdt. 2	**Revised**

TERMINAL VOR

Laurel, Miss.—Muni Arpt	TerVOR-13, Amdt. 3	**Revised**
Santa Ana, Calif.—Orange Co Arpt	VOR-IL, Amdt. 2	**Revised**
Santa Ana, Calif.—Orange Co Arpt	VOR-19R, Amdt. 7	**Revised**

VOR/DME

North Bend, Ore.—North Bend Muni Arpt	VOR/DME #1, Orig.	**Established**

INSTRUMENT LANDING SYSTEM

Columbia, S.C.—Columbia Metro Arpt	ILS-10, Amdt. 2	**Revised**
Columbus, Ga.—Muscogee County Arpt	ILS-5, Amdt. 9	**Revised**
Moses Lake, Wash.—Grant County Arpt	ILS-32, Amdt. 1	**Revised**
Newport News, Va.—Patrick Henry Arpt	ILS-24 (Back Course)	**Established**

RADAR

Toledo, Ohio—Toledo Express Arpt	No. 1, Amdt. 4	**Revised**

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective October 15, 1966:

LOW FREQUENCY RANGE

Dublin, Va.—New River Valley	No. 1, Amdt. 3	**Revised**

AUTOMATIC DIRECTION FINDING

Jackson, Tenn.—McKellar Field	No. 1, Amdt. 3 efctv. 21 Nov 64	**Cancelled**
Las Vegas, Nev.—McCarran Arpt.	No. 1, Amdt. 2 efctv. 2 Jul 66	**Cancelled**
St. Petersburg—Clearwater, Fla.—St. Petersburg—Clearwater Int'l	No. 1, Amdt. 11	**Revised**

VHF OMNIRANGE

Location	Procedure	Action
Buffalo, N.Y.—Buffalo Airpark	No. 1, Amdt. 1	Revised
Cross City, Fla.—Cross City Arpt.	No. 1, Amdt. 9	Revised
Dublin, Va.—New River Valley Arpt.	No. 2, Amdt. 1	Revised
Middletown, N.Y.—Randall Arpt.	No. 1, Orig	Established
Wurtsboro, N.Y.—Wurtsboro Arpt.	No. 1, Orig	Established

TERMINAL VOR

Location	Procedure	Action
Jackson, Tenn.—McKellar Field	TerVOR-2, Orig	Established
New Haven, Conn.—Tweed—New Haven Arpt.	TerVOR-1, Amdt. 6	Revised
Richmond, Va.—Richard E. Byrd Flying Field	TerVOR-6, Amdt. 9 efctv 13 Nov 65	Cancelled
Richmond, Va.—Richard E. Byrd Flying Field	TerVOR-15, Amdt. 15	Revised
Richmond, Va.—Richard E. Byrd Flying Field	TerVOR-20, Orig	Established
Richmond, Va.—Richard E. Byrd Flying Field	TerVOR-33, Amdt. 11	Revised
Schenectady, N.Y.—Schenectady Co. Arpt.	TerVOR-22, Orig	Established

VOR/DME

Location	Procedure	Action
Billings, Mont.—Logan Field	VOR/DME #2, Amdt. 6	Revised
Dublin, Va.—New River Valley Arpt.	VOR/DME #1, Orig. efctv. 21 Jul 66	Cancelled
Helena, Mont. Helena Arpt.	VOR/DME #1, Orig.	Established
New York, N.Y.—John F. Kennedy Int'l Arpt.	VOR/DME #1, Amdt. 4 efctv. 18 Dec 65	Cancelled
Twin Falls, Ida.—Twin Falls Muni. (Joslin Field)	VOR/DME #1, Orig. efctv. 1 Oct 66	Cancelled
Twin Falls, Ida.—Twin Falls Muni. (Joslin Field)	VOR/DME #2, Orig. efctv. 1 Oct 66	Cancelled

INSTRUMENT LANDING SYSTEM

Location	Procedure	Action
Chicago, Ill.—Chicago-O'Hare Int'l Arpt.	ILS-4, Orig	Established
New York, N.Y.—LaGuardia Arpt.	ILS-22, Amdt. 3	Revised

RADAR

Location	Procedure	Action
Palo Alto, Calif.—Palo Alto Airport of Santa Clara Co.	No. 1, Orig	Established
Walla Walla, Wash.—Walla Walla City-County Arpt.	No. 1, Amdt. 1	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective October 29, 1966:

AUTOMATIC DIRECTION FINDING

Location	Procedure	Action
Beverly, Mass.—Beverly Municipal Arpt	No. 1, Amdt. 3	Revised
Bremerton, Wash.—Kitsap Co. Arpt	No. 1, Amdt. 4	Revised
Columbus, Ohio—Port Columbus Int'l	No. 2, Amdt. 3	Revised
Columbus, Ohio—Port Columbus Int'l	No. 3, Amdt. 3	Revised
Columbus, Ohio—Port Columbus Arpt	No. 4, Amdt. 2, efctv 14 Mar 64	Cancelled
Covington, Ky.—Greater Cincinnati Arpt	No. 1, Amdt. 19	Revised
Evansville, Ind.—Dress Memorial Arpt	No. 1, Amdt. 2	Revised
Nashua, N.H.—Boire Field	No. 1, Amdt. 3	Revised
Nashua, N.H.—Boire Field	No. 2, Amdt. 2	Revised
Perryton, Tex.—Perryton Municipal Arpt	No. 1, Orig.	Established
Rockland, Me.—Rockland Municipal Arpt	No. 1, Amdt. 4	Revised
Wilmington, Del.—Greater Wilmington Arpt	No. 1, Amdt. 8	Revised
Worcester, Mass.—Worcester Municipal Arpt	No. 1, Amdt. 10	Revised

VHF OMNIRANGE

Location	Procedure	Action
Bismarck, N.D.—Bismarck Municipal Arpt	No. 1, Amdt. 9	Revised
Chagrin Falls, Ohio—Chagrin Falls Arpt	No. 1, Amdt. 1	Revised
Covington, Ky.—Greater Cincinnati Arpt	No. 1, Amdt. 8	Revised
Covington, Ky.—Greater Cincinnati Arpt	No. 2, Amdt. 3, efctv 20 Apr 63	Cancelled
Dodge City, Kans.—Dodge City Municipal Arpt	No. 1, Amdt. 9	Revised
El Dorado, Ark.—Goodwin Field	No. 1, Amdt. 4	Revised
Fargo, N.D.—Hector Arpt	No. 1, Amdt. 1	Revised
Fort Dodge, Iowa—Fort Dodge Municipal Arpt	No. 1, Amdt. 7	Revised
Nashua, N.H.—Boire Field	No. 1, Amdt. 3	Revised

Location	Procedure	Action
New Orleans, La.—New Orleans-Lakefront Arpt	No. 3, Orig., efctv 25 Dec 65	**Cancelled**
St. Petersburg-Clearwater, Fla.—St. Petersburg-Clearwater Int'l	No. 1, Orig.	**Established**
San Antonio, Tex.—Stinson Municipal Arpt	No. 1, Amdt. 6	**Revised**

TERMINAL VOR

Location	Procedure	Action
Flint, Mich.—Bishop Arpt	TerVOR-18, Amdt. 4	**Revised**
Norfolk, Va.—Norfolk Municipal Arpt	TerVOR-22, Orig.	**Established**

VOR/DME

Location	Procedure	Action
Fort Dodge, Iowa—Fort Dodge Municipal Arpt	VOR/DME-1, Amdt. 3	**Revised**
Norfolk, Va.—Norfolk Municipal Arpt	VOR/DME-1, Amdt. 1, efctv 18 Jul 64	**Cancelled**
St. Petersburg-Clearwater, Fla.—St. Petersburg-Clearwater Int'l	VOR/DME-1, Amdt. 2, efctv 26 Mar 66	**Cancelled**

INSTRUMENT LANDING SYSTEM

Location	Procedure	Action
Columbus, Ohio—Port Columbus Int'l	ILS-10L, Amdt. 3	**Revised**
Eugene, Ore.—Mahlon Sweet Field	ILS-16, Amdt. 19	**Revised**
Evansville, Ind.—Dress Memorial Arpt	ILS-21, Amdt. 10	**Revised**
Louisville, Ky.—Standiford Field	ILS-1, Amdt. 25	**Revised**
Philadelphia, Pa.—Philadelphia Int'l	ILS-9, Amdt. 18	**Revised**
Wilmington, Del.—Greater Wilmington Arpt	ILS-1, Amdt. 9	**Revised**
Worcester, Mass.—Worcester Municipal Arpt	ILS-33, Amdt. 10	**Revised**

RADAR

Location	Procedure	Action
Covington, Ky.—Greater Cincinnati Arpt	No. 1, Amdt. 7	**Revised**
Detroit, Mich.—Willow Run Arpt	No. 1, Orig.	**Established**
Philadelphia, Pa.—Philadelphia Int'l	No. 1, Amdt. 10	**Revised**

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* WAC 269	Sept. 2, 1965
WAC 304	Jan. 18, 1966
WAC 305	Sept. 3, 1965
WAC 306	Sept. 29, 1965
WAC 307	Oct. 1, 1965
WAC 308	Oct. 29, 1965
WAC 309	Nov. 22, 1965
WAC 310	Jan. 14, 1966
WAC 357	Apr. 21, 1966
WAC 358	May 9, 1966
WAC 359	Oct. 27, 1965
WAC 360	Nov. 1, 1965
WAC 361	Oct. 25, 1965
→ WAC 362	July 29, 1966
→ WAC 363	Aug. 2, 1966
WAC 364	Jan. 18, 1966
→ WAC 404	July 18, 1966
WAC 405	Feb. 11, 1966
→ WAC 406	Aug. 1, 1966
WAC 407	Feb. 17, 1966
WAC 408	June 9, 1966
→ WAC 409	July 11, 1966
WAC 410	June 8, 1966
WAC 466	May 12, 1966
WAC 467	May 31, 1966
WAC 468	Dec. 15, 1965
WAC 469	Dec. 21, 1965
WAC 470	Feb. 11, 1966
WAC 471	Mar. 8, 1966
WAC 522	Dec. 23, 1965
WAC 525	June 16, 1966

JET NAVIGATION CHARTS

Price 50 cents each

JN 29	United States Northwest	Apr. 4, 1966
JN 30	United States Northeast	Mar. 10, 1966
JN 44	United States Southwest	Feb. 17, 1966
JN 45	United States Southeast	Jan. 11, 1966

PLANNING CHARTS

o VFR/IFR (Price $2.00)	July 21, 1966
Aeronautical Chart Catalog (Free)	Oct., 1966

AIRCRAFT POSITION CHARTS

Price 30 cents each

3071	North Atlantic	Apr. 14, 1966
→ 3073	Caribbean Sea	June 23, 1966
3087	Central Pacific	May 16, 1966
3088	Southwest Pacific	June 6, 1966
3094	North Pacific	Apr. 19, 1966
3096	United States-Honolulu	June 14, 1966
3097	North America-Europe	May 12, 1966

† DISCONTINUED

→ New Edition published. Obsoletes Chart of Earlier date.

* New Edition will be published in about one month.

o Folded copies available on request.

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U. S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
ALABAMA					
577	Fort Rucker (Caims AAF)	10-1-66R6	10-1-66(1)	10-1-66R6	
		10-1-66R24	10-1-66(2)		
			10-1-66(3)		
ALASKA					
1500	Anchorage (Intnl)	9-10-66(1)	9-10-66(1)	9-10-66R6	9-10-66
1233	Aniak		9-17-66(1)*		
1251	Iliamna		10-1-66*		
1237	King Salmon	10-1-66DME(1)		10-1-66R11	
1193	Yakutat	9-10-66DME(1)	9-10-66(1)		
		9-10-66DME(3)			9-10-66
ARIZONA					
462	Winslow	9-10-66(1)			
		9-10-66DME(1)			
ARKANSAS					
631	Fort Smith		9-10-66(1)	9-10-66R25	
5386	West Memphis	9-15-66DME(1)*			
		9-15-66DME(2)*			
CALIFORNIA					
36	Bakersfield (Meadows Fld)		9-17-66(1)	9-17-66R30R	
104	Daggett(Barstow-Daggett)	10-1-66(1)			
5218	La Verne (Brackett Fld.)	10-1-66Rad-164			
237	Los Angeles (Intnl)	10-1-66R25R	10-1-66(1)	10-1-66R25L	
				10-1-66R25R	
552	Los Angeles (Van Nuys)		9-24-66(1)	9-24-66-08	
882	Montaque (Siskiyou Co.)		9-24-66(1)		
965	Ontraio (Intnl)		10-1-66(1)	10-1-66R25	
				10-1-66R7(BC)	
769	Riverside (Mun.)	10-1-66R9			
		10-1-66Rad-093			
5237	San Bernardino (Tri-City)		10-1-66(1)		
375	San Francisco (Intnl)	10-1-66R10L&R	10-1-66(1)	10-1-66R28R	
		10-1-66R19L	10-1-66(2)	10-1-66R10L(BC)	
		10-1-66R28L&R			
377	Santa Ana (Orange Co.)	10-8-66R1L			
		10-8166R19R			
407	Stockton (Metropolitan)	9-24-66(1)	9-24-66(1)	9-24-66R29R	
5179	Torrance	9-10-66(1)			
		9-10-66DME(1)			
5203	Upland (Cable)	10-1-66(1)			
COLORADO					
18	Alamosa	10-1-66(1)			
480	Durango(-LaPlata Co.)	9-24-66R2			
		9-24-66RAD 104			
634	Grand Junction (Walker Field)		9-24-66(1)	9-24-66R11	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	FLORIDA				
606	Key West (Intnl)	9-10-66DME(1)	9-10-66(1)		
939	Lakeland	10-1-66DME(1)			
305	Orlando (Herndon)	9-24-66DME(1) 9-24-66DME(2)	9-24-66(1)	9-24-66R7 9-24-66R25(BC)	
640	Sarasota (-Bradenton)	9-24-66R13			
625	St. Petersburg (Clearwater Intnl)		10-1-66(1)	10-1-66R17	
	GEORGIA				
469	Atlanta(DeKalb-Peachtree)	9-24-66(1)			
636	Columbus (Muscogee Co.)	9-10-66(1)	9-10-66(1)	9-10-66R5	
5385	Lawrenceville (Gwinnett Co.)	9-15-66(1)* 9-15-66DME(1)*			
244	Macon (Herbert Smart)	9-17-66 DME(1)			
5020	Moultrie (-Thomasville)	9-10-66R4 9-10-66R22 9-10-66R10			
601	Thomasville	9-17-66(1)			
892	Valdosta	9-17-66(1)			
	HAWAII				
762	Kahului, Maui	10-8-66(1)			
		10-8-66DME(2)	9-10-66(1)	9-10-66R2	
	IDAHO				
57	Boise (Air Terminal)		10-1-66(1)	10-1-66R10L	
885	Twin Falls (Joslin Fld.)	10-1-66R25			
	ILLINOIS				
5103	Aurora (Mun.)	9-24-66(1)			
5028	Chicago (Pal-Waukee)	9-10-66(1)			
5109	Chicago (Whelling) (Chicagoland)	9-10-66R13 9-10-66R22			
5154	Crystal Lake	9-10-66DME(1)			
5102	Elgin	9-24-66(1)			
5219	Fort Sheridan(Sheridan AAF)	9-10-66(1)	9-10-66(1)		
5043	Northbrook(Sky Harbor)	9-10-66(1)			
862	Quincy (Mun. Baldwin Fld.)		10-1-66(1)	10-1-66R3	
	INDIANA				
5064	Marion	9-17-66R4 9-17-66R22			
	IOWA				
5307	Ames		9-17-66(1)		
972	Clinton	9-17-66(1)			
	KANSAS				
175	Great Bend		10-8-66(1)*		
620	Topeka(Philip Billard)	9-17-66(1)	9-17-66(1)	9-17-66R13 9-17-66R31(BC)	
987	Wichita	9-10-66(1)	9-17-66(1)	9-17-66R1 9-10-66R19(BC)	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		KENTUCKY			
605	Bowling Green(Warren Co.)	10-1-66 (1)			
697	Lexington(Blue Grass Fld.)		9-24-66(1)	9-24-66R4	
		MAINE			
329	Portland		9-24-66(1)	9-24-66R11	
5129	Waterville(Robert LaFleur)		9-24-66(1)		
		MARYLAND			
804	Baltimore(Friendship Intnl)		9-24-66(1)	9-24-66R10	
5114	Hagerstown	10-1-66(1)			
		MASSACHUSETTS			
626	Bedford (Laurence G. Hanscom)		9-10-66(1)	9-10-66R11	
5276	Fall River		10-8-66(1)		
349	Fort Devens (Devens AAF)	9-17-66R14			
725	Norwood (Memorial)	10-8-66 (1)	10-8-66(1)		
975	Pittsfield		9-10-66(1)		
5295	Plymouth	10-8-66(1)			
5175	Taunton (Mun.)	10-8-66(1)			
		MICHIGAN			
5384	Alma		9-15-66(1)*		
618	Flint (Bishop)	9-24-66R5	9-24-66(1)	9-24-66R9	
		9-24-66R23			
		9-24-66R9			
		9-24-66R27			
		9-24-66R18			
224	Lansing (Capital City)		10-1-66(1)	10-1-66R27	
781	Marquette (Co.)	9-17-66R8			
		9-17-66R26			
		MINNESOTA			
5094	Minneapolis(Flying Cloud)	9-17-66R9L			
264	Minneapolis		9-17-66(1)	9-17-66R29L	
	(St. Paul Intnl)		9-17-66(2)	9-17-66R4	
				9-17-66R11R(BC)	
				9-17-66R22(BC)	
263	St. Paul (Downtown)	9-24-66(1)			
5190	S. St. Paul (Fleming Fld.)	9-24-66(1)			
		9-24-66(2)			
		MISSISSIPPI			
5006	Columbus (-Lowndes Co.)	9-17-66(1)			
5185	Laurel	10-8-66R13			
254	Meridian (Key Field)	10-1-66(1)	10-1-66(1)	10-1-66R1	
5351	Walls (Twinkle Town)	9-17-66(1)			
		MISSOURI			
878	Malden	9-24-66(1)			
510	Rolla (National)	9-24-66(1)			
360	St. Louis (Lambert-	9-17-66(1)	9-17-66(1)	9-17-66R24	
	(St. Louis)	9-17-66(2)	9-17-66(2)	9-17-66R6(BC)	
			9-17-66(3)	9-17-66R12R	
				9-17-66R30L(BC)	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	NEBRASKA				
974	Norfolk(Karl Stefan Mem)	10-1-66R31			
292	North Platte(LeeBird Fld)	10-8-66(1)	10-8-66(1) 10-8-66(2)		
304	Omaha (Eppley Airfield)	10-1-66(1) 10-1-66DME(1)	10-1-66(1)	10-1-66R14 10-1-66R32(BC)	
	NEVADA				
346	Reno		10-1-66(2)	10-1-66R16	
	NEW HAMPSHIRE				
5082	Whitefield (Regional)		10-1-66(1)		
	NEW JERSEY				
285	Newark		9-24-66(1)	9-24-66R4	
890	Teterboro		9-17-66(1)	9-17-66R6	
	NEW YORK				
20	Binghamton (Broome Co.)	10-1-66DME(1)			
65	Buffalo (Greater Buffalo Intnl)	9-24-66DME(1) 10-1-66DME(2)		9-24-66R5(BC)	
5016	East Hampton	9-24-66(1)			
5264	Montgomery (OrangeCo.)	9-17-66(1)			
289	New York(LaGuardia)	9-19-66-SOUND APPROACH*	9-24-66(1)	9-24-66R4	
614	Niagara Falls		9-24-66(1)	9-24-66R28R	
955	Utica (Oneida County)	9-24-66(1)	9-24-66(1) 9-24-66(2)	9-24-66R33 9-24-66R15(BC)	
666	Watertown	9-24-66(1)			
	NORTH CAROLINA				
5076	Defiance (Bryan-Defiance Mem.)		9-24-66(1)		
5376	Geneva (Germack)	9-17-66(1)			
670	New Bern (Simmons-Nott)	9-24-66(1)			
	OHIO				
5009	Bowling Green(University)	9-24-66(1)			
5387	Columbus(Ohio State Univ)		9-24-66(1)*		
5068	Sandusky (Griffing)	9-24-66(1)			
	OKLAHOMA				
739	Oklahoma City (Wiley Post)	9-10-66(1)			
301	Oklahoma City (Will Rogers World)	9-10-66(1)	9-10-66(1) 9-10-66(2)	9-10-66R35L 9-10-66R17R(BC)	
623	Muskogee (David Fld.)		9-24-66(1)		
	OREGON				
782	Corvallis	10-1-66R17			
140	Eugene (Mahlon Sweet)	9-24-66R16			
473	Klamath Falls (Kingsley Field)	9-10-66R32	9-10-66(2)	9-10-66R32	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	OREGON				
251	Medford (Jackson Co.)	10-1-66(1) 10-1-66DME(1) 10-1-66DME(2)		10-1-66R14	
929	North Bend	10-8-66DME(1)*			
361	Salem(McNary Field)		9-24-66(1)	9-24-66R31	
	PENNSYLVANIA				
5254	Clarion (Rhea)	9-10-66(1)			
187	Harrisburg (York State)	9-24-66(1)		9-24-66R8	
898	Johnstown (-Cambria Co.)	9-10-66R5 9-10-66R23			
320	Philadelphia (Intnl)		9-17-66(1)	9-17-66R9 9-17-66R27(BC)	
5336	State College(AirDepot)	9-24-66(1)			
	SOUTH CAROLINA				
76	Charleston (AFB/MUN.)		9-24-66(1)	9-24-66R15	
89	Columbia (Metropolitan)		10-8-66(1)	10-8-66R10	
183	Greenwood (County)	10-1-66R9 10-1-66R27			
401	Spartanburg (Downtown Memorial)	9-10-66DME(1) 9-10-66DME(2)	9-10-66(1)		
	TENNESSEE				
79	Chattanooga (Lovell Fld.)	10-1-66(1)	10-1-66(1)	10-1-66R2(BC) 10-1-66R20	
253	Memphis (Metropolitan)	9-17-66(1) 9-17-66(2)	9-17-66(1) 9-17-66(2)	9-17-66R9 9-17-66R35 9-17-66R27(BC)	
282	Nashville (Metropolitan)		10-1-66(1)	10-1-66R2L	
	TEXAS				
1	Abilene (Mun.)		9-24-66(1)	9-24-66R35	
19	Amarillo (AFB/Mun.)	9-24-66(1) 9-24-66(2)	9-24-66(1)	9-24-66R3 9-24-66R21(BC)	
715	Amarillo (Tradewind)	9-10-66(1)	9-10-66(1)		
768	Dallas (Addison)	9-10-66R15 9-10-66R33			
742	Dallas (Redbird)	10-1-66(1)	10-1-66(1)		
5344	Killeen	10-1-66(1)			
439	Waco	9-24-66DME(1)			
454	Wichita Falls (Sheppard AFB/ Air Term)	9-24-66(1)	9-24-66(1)	9-24-66R33 9-24-66R15(BC)	
461	Wink (Winkler County)	9-17-66(1)			
	VERMONT				
70	Burlington		10-1-66(1)	10-1-66R15	
	VIRGINIA				
957	Newport News (Patrick Henry)			10-8-66R24(BC)*	
291	Norfolk	9-10-66R4 9-10-66DME(1)		9-10-66R4	
5199	Sherman	9-10-66(1)			
5251	Winchester	9-24-66(1)			

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		WASHINGTON			
961	Moses Lake (Grant Co.)	9-24-66(1)* 9-24-66(2)*	10-1-66(1)*	10-1-66R32*	
440	Walla Walla (City-Co.)	9-17-66R16 9-17-66R2 9-17-66R20	9-17-66(1)		
		WISCONSIN			
937	Eau Claire	10-1-66(1)			
938	Janesville (Rock Co.)	9-24-66(1) 9-24-66DME(1)			
245	Madison (Truax Field)	9-10-66R13 9-10-66R31 9-10-66R18	9-10-66(1)	9-10-66R36	
5085	Rhinelander (-Oneida Co)	9-15-66R5 9-15-66R15 9-15-66DME(1)*			
5086	Tomahawk (Drott)	9-15-66(1)			
5078	Waukesha (County)	9-17-66(1)			
		WYOMING			
80	Cheyenne	9-17-66(1)	9-17-66(1)	9-17-66R26	
691	Riverton	9-24-66R10 9-24-66R28			
		MARIANA ISLANDS			
2147	Guam (Andersen AFB)		9-24-66(1)	9-24-66R6R	
		VIRGIN ISLANDS			
5008	Christiansted, St. Croix, (Alexander Hamilton)	10-1-66(1)			
		RADAR SUPPLEMENT			
Radar	Pages 1 - 2	9-66			

* NEW CHART

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

PART 3A

WASHINGTON NATIONAL AIRPORT

Delays may be encountered at Washington National Airport due to serious congestion of passenger, parking and ground facilities. The Federal Aviation Agency asks the cooperation of all pilots in reducing this congestion and delay. Whenever practicable, pilots are urged to use other airports serving the Washington Metropolitan Area.

NOTICES TO AIRMEN

EFFECTIVE 0501Z 13 OCTOBER 1966

To 0501Z 27 OCTOBER 1966

Part 3–A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necessarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and ldgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

AUBURN, OPELIKA MUNI ARPT: Tmpry ctl Twr. will be in opern 1000–1800C Oct 22 and Nov 12. Ident: Auburn Twr. Freq: 121.3, 121.5 and receive 122.5. Flight Planning and Weather Briefing will also be avbl.

BRANTLEY MUNI ARPT: Clsd UFN.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft.

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd. VFR acft ctc Craig Twr on 126.2 for tfc and ldg advisories.

ARIZONA

CAMERON ARPT: Potholes near centerline of rnwy 4–22, mrkd with flagged stakes.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PHOENIX-SKY HARBOR MUNI ARPT: E 2350′ rnwy 8R–26L clsd for ldgs dalgt hrs W 7950′ avbl ldg days. W 8850′ avbl tkof and ldg ngts only. W 9600′ avbl tkof dalgt hrs. Rnwy shoulder E of 8850′ portion rnwy 8R–26L unsafe. Eqpmt on or adjacent to rnwy and parallel txwys due constr., ldg/tkof length may vary, ctc twr for latest changes.

SCOTTSDALE MUNI ARPT: Clsd due constr until aprxly April 20, 1967.

WILLIAMS MUNI ARPT: Rnwy 18–36 clsd UFN.

ARKANSAS

FAYETTEVILLE, DRAKE FLD: Nov 12 a tmpry ctl twr will be in opern atop main hangar 0900–1800 CST. Freq: 120.9, 121.5 receive only 122.7.

FAYETTEVILLE RDO: FSS voice comms freqs 123.6, 126.7, 121.5 mc unusable beyond 25 NM below 5500′ MSL 240–310°.

FLIPPIN ARPT: Clsd UFN due constr.

FORDYCE MUNI ARPT: Rnwy lgts inop UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

WALNUT RIDGE MUNI ARPT: Rnwy 17–35 clsd. Rnwys 4–22 and 13–31 clsd ngt operns until aprxly Oct 15 due constr.

CALIFORNIA

BLUE CANYON ARPT: Clsd UFN.

BORREGO SPRINGS, BORREGO VALLEY-SAN DIEGO COUNTY ARPT: Rotating bcn inop UFN.

BURBANK, LOCKHEED AIR TERMINAL TWR: Oct 27, app con freq 120.9 will be replaced by 120.4, dep con freq 118.4 will be replaced by 124.6.

CARPINTERIA, PARSONS ARPK: Clsd to all operns excpt helicopters until aprxly Jan 1, 1967 for rnwy resurfacing and constr.

✓FONTANA, RIALTO MUNI ARPT: Associated city changed to Rialto.

GORMAN RDO: DME shutdown until aprxly Oct. 14.

HANFORD MUNI ARPT: Clsd for major repairs.

LONG BEACH RDO: ILS glide slope and lclzr shutdown til aprxly Oct 14.

LOS ANGELES INTL ARPT TWR: Oct 27, twr freqs 125.8 123.7 will be replaced by 119.8 120.8 respectively. Clrnc Del freq will be changed to 128.5 121.4.

LOS ANGELES—VAN NUYS ARPT TWR: Oct 27, Freq: 120.3 will be replaced by 120.2. Burbank App Con will be changed to 120.4, dep con will be changed to 124.6.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline.

RAMONA ARPT: Constr in progress. Use rnwy for taxiing, use only designated entrances.

SAN CARLOS ARPT: Flt operns dalgt hrs only. Lgts and bcn inop UFN. Lmtd parking for transients.

SAN DIEGO COUNTY–GILLESPIE FLD: Constr in progress until aprxly March 1967. Rnwy 17–35 tmprly shortened.

SAN DIEGO, LINDBERGH FLD TWR: ILS glide slope will be relctd and VOR 109.6 ident: LIF will be inop during dalgt hrs only until aprxly Dec 15.

SAN FRANCISCO INTL ARPT: Constr on E side of rnwy 1R runup mat dalgt hrs until aprxly Nov. 1.

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

SAN JOSE MUNI ARPT: Displaced threshold area clsd to acft over 12,500 lbs GWT.

SAN JUAN, CAPISTRANO ARPT: Clsd until aprxly Dec 15.

SAUSALITO RDO: DME shutdown for maintenance.

TORRANCE MUNI ARPT TWR: Oct 27, freq 118.1 will be replaced by 120.9.

VISALIA MUNI ARPT: Tmpry 1135′ displaced threshold rnwy 30 reducing landing length to 4760′. 30′ crane operg daylgt hrs, 1300′ SE of displaced threshold.

COLORADO

CORTEZ, CORTEZ–MONTEZUMA COUNTY ARPT: Clsd UFN due constr.

DENVER, STAPLETON INTL ARPT TWR: Glide slope rnwy 35 shutdown for mod til aprxly Nov 10.

DENVER, STAPLETON INTL ARPT: Apch lgts rnwy 35 inop.

KREMMLING RDO: VOR will be shut down dalgt hrs Oct 25–27. DME will be shutdown Oct 24–28 for antenna change.

TRINIDAD RDO: VHF/DF unusable beyond 40 mi below 8000′ MSL 280–120°, 9000′ MSL 120–135°, 15,000′ MSL 135–175°, 17,500′ MSL 175–220°, 14,500′ 220–280°.

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large acft including jets, also clsd for ngt operns.

HARTFORD, BRAINARD FLD: Rnwy 10–28 under constr, eqpmt adj to and on rnwy 2–20 intermittently until aprxly Nov.

WINDSOR LOCKS, BRADLEY FLD: Rnwy lgts rnwy 1–19 inop.

WINDSOR LOCKS, BRADLEY FLD TWR: Oct 13, glide slope will be shutdown for relctn until aprxly Nov 15.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P–56. See Washington, D.C. chart under Special Notices–Area in Part 3 for location.

WASHINGTON, DULLES INTERNATIONAL ARPT: Rnwy 1R will be shut down on day-to-day basis excp when prevailing winds favor apchs from S and wea conditions below circling minimums of 500′ and 1½ mi.

WASHINGTON NATIONAL ARPT: Delays may be encountered at the arpt due to serious congestion of passenger, parking and ground facilities. The Federal Aviation Agency asks the cooperation of all pilots in reducing this congestion and delay. Whenever practicable, pilots are urged to use other airports serving the Washington Metropolitan Area.

WASHINGTON NATL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying civilian or military dignitaries VIP codes 1 or 2. (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C–140) (2) Sabreliner (T–39) (3) Morane Sauliner 760 (4) Jet Commander (Aero Commander) (4) Learjet Model 23 (Lear Jet Co.) (6) Hawker Siddley DH–125 (7) Fan Jet Falcon (8) Caravelle (9) DC–9 (10) BAC–111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet acft described in paragraph B (8) through (11) may not be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda. Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

WASHINGTON NATIONAL ARPT: Rnwy 15–33 clsd SS–SR UFN.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: HAITI, private acft landing or overflying Haiti must furnish 48 hours advance notice and a flight plan must be filed. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

GAINESVILLE MUNI ARPT: Tmpry ctl twr will be in opern Oct 29, Nov 12 and Nov 26, 0800–1900 LST. Freq: 119.7 transmit/receive, 122.5 receive, only. Acft with no radio watch for lgt gun signal.

LAKE CITY MUNI ARPT: Constr vcnty rnwy 10–28 for installing lgts until aprxly Nov 15.

LAKE CITY, SKY HAVEN ARPT: Rnwy 1–19 clsd.

MIAMI: Due to the lack of adequate inter center communications btn the Miami Center and adjacent CTA/FIR's and a continued increase in IFR and DVFR traffic btn points in Central America/Caribbean area and Florida, pilots on DVFR flights are advised to report to Key West FSS, Miami International FSS, Nassau Radio or Miami Aeronautical Radio Inc (ARINC) prior to penetrating the Gulf of Mexico Atlantic Coastal ADIZ: Pilots on IFR flights are advised to report to Miami Center, Miami International FSS Miami Aeronautical Radio Inc (ARINC), Key West FSS or Nassau Radio prior to entering the Miami FIR. Miami Center frequencies are: East of 79° West, 125.7/307.9; West of 79° are: 120.3/118.9/319.1, 124.4/281.4, 132.7/306.9, 127.7/362.3. Adherence to this procedure enhances identification and minimizes the possibility of being intercepted.

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

✓MIAMI, OPA LOCKA ARPT: Rnwy 12–30 shortened from SE end, new length btn threshold 2400'. Rnwy 5–23 permly clsd. Rnwy 9R–27L shortened from E end and displaced threshold at W end moved 150' W, new rnwy length 3750' with 3000' lndg length rnwy 9R. Rnwy 9R–27L designation will be 9C–27C.

MIAMI, OPA LOCKA ARPT: Constr in progress W end rnwy 18–36 til aprxly Mar 15, 1967.

PENSACOLA MUNI ARPT TWR: ILS glide slope shut down UFN. Apch lgt sys rnwy 16 inop.

PENSACOLA MUNI ARPT: Constr apch ends rnwys 16 and 25 dalgt hrs.

ST. PETERSBURG RDO: Oct 31, DME will be shutdown until aprxly Nov 5. Nov 1, VOR will be shutdown until aprxly Nov 4.

SANFORD NAS RDO: Rbn inop UFN.

TALLAHASSEE RDO: During shutdown of TLH VOR portion of VORTAC airways and intersections are defined by brgs from TLH Rbn located at VORTAC site instead of radials. MEAs remain unchanged. Blountstown Int is changed to MAI VOR 139 rad and PFN VOR 062 rad. RBn comsnd. Ident: TLH, Freq: 358, Class: HW, collocated with TLH VORTAC to serve during VOR outage. Ctld by Tallahassee FSS. Unusable at ngt from Lobster, Fla Int to Scallop Int.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtd 80' boom pile driver operg 1200' N apch end rnwy 27 until aprxly Dec 1, 1966. Lgtg constr in progress adj rnwy 9–27 and SE end rnwy 13–31 til aprxly Nov 1966.

WEST PALM BEACH, PALM BEACH COUNTY PARK ARPT: Rnwy 9–27 and adjacent apron areas under constr til aprxly Nov.

GEORGIA

ALMA, BACON COUNTY ARPT: Clsd to all operns til aprxly Nov 1 due constr.

ATHENS MUNI ARPT: Tmpry twr will be in opern 1000–1800 EST on the following dates: Oct 22, 29 and Nov 26. Freq: transmit and receive: 120.4, 121.5, receive only 122.5.

COLUMBUS MUNI ARPT: Rnwy 16–34 clsd and rnwy 11–29 decreased to 3500' due constr til aprxly Nov 15.

JEFFERSON, JACKSON COUNTY ARPT: Clsd to all operns for unknown duration due constr.

IDAHO

POCATELLO MUNI ARPT: Rnwy 16–34 lgts inop UFN.

ILLINOIS

CHICAGO–HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-O'HARE INTL TWR: ILS lclzr rnwy 32R ident: IDN and glide slope and PAR apch rnwy 14L shutdown until aprxly Nov 15 for relctn.

CHICAGO–O'HARE INTL ARPT: Constr on NW end of rnwy 14L–32R.

EAST ST. LOUIS, LAKEVIEW ARPT: Clsd UFN.

GLENVIEW RDO: RBn, ident NBU inop UFN.

KANKAKEE, GREATER KANKAKEE ARPT: Constrn rnwy 4–22; rnwy intermittently clsd.

MOLINE, QUAD CITY ARPT TWR: ILS glide slope and lclzr serving rnwy 9 shutdown intermittently on day-by day basis until aprxly Oct 28.

PEORIA, GREATER PEORIA ARPT TWR: Oct 24, ILS rnwy 30 will be shutdown until aprxly Nov 2 for mod.

PEORIA, MT. HAWLEY AUXILIARY ARPT: Clsd to all transient and ngt operns til aprxly Nov 1 for constrn, clsd marked on fld.

QUINCY MUNI-BALDWIN FLD: Rnwy lgts rnwy 17–35 inop UFN.

QUINCY RDO: Oct 25, VOR will be shutdown until aprxly Oct 28 for mod.

INDIANA

BLOOMINGTON RDO: VOR shutdown dalgt hrs VFR until aprxly Nov 10.

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope and MM rnwy 21 shutdown til Nov due rnwy constr.

EVANSVILLE, DRESS MEML ARPT: NE end rnwy 3–21 unusable, usable length 5427'.

FORT WAYNE RDO: Oct 10, DME will be shutdown until aprxly Oct 14. Oct 11, VOR will be shutdown until aprxly Oct 14 antenna replacement.

GARY MUNI ARPT: SE end rnwy 12–30 under constr until aprxly Nov 1, monitor unicom freq.

MUNCIE, DELAWARE COUNTY ARPT: Rnwys and txwys will be clsd and opened as required for resurfacing and painting. Ctc IND area rdo or MIE twr for daily status of rnwys. Unlgtd sod rnwy 9–27 avbl for lgt acft.

IOWA

BLOOMFIELD MUNI ARPT: Clsd until Nov 15 for constr.

CLARION MUNI ARPT: Clsd to transient acft UFN.

DES MOINES MUNI ARPT TWR: ILS lclzr and glide slope will be shut down dalgt hrs Mon–Sat until aprxly Nov 19.

EMMETSBURG MUNI ARPT: Clsd UFN.

IOWA CITY MUNI ARPT: Tmpry twr in opern Oct 22, 29 and Nov 12. Freq: 120.7, 122.5R. Watch for light gun signals.

RED OAK MUNI ARPT: N/S rnwy clsd due constrn.

WATERLOO MUNI ARPT TWR: ILS serving rnwy 12 shutdown UFN for relctn of lclzr.

WATERLOO MUNI ARPT: Due constr 600' SE end of rnwy 12–30 clsd UFN, usable length of rnwy 4800' threshold lgts will be displaced 600'.

KANSAS

FORT SCOTT MUNI ARPT: Rnwy 11–29 clsd UFN.

GOODLAND RDO: VHF/DF unusable below 6000' MSL beyond 40 NM.

RUSSELL MUNI ARPT: Arpt clsd ngt operns til aprxly Dec 15.

KENTUCKY

GREENVILLE, MUHLENBERG COUNTY ARPT: Rotating bcn inop UFN.

LEXINGTON, BLUE GRASS FLD: Rnwy 4–22 will be clsd nightly 2300–0700 EST, for overlay rnwy. Rnwys 15–33 and 8–26 clsd periodically during constr paving intersections.

LOUISVILLE, STANDIFORD FLD: Rnwy 11-29 clsd until aprxly Nov 15 due constr.

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope (rnwy 29) shut down UFN due rnwy constr. Lclzr and ASR will be shut down intermittently on day by day basis.

LOUISIANA

NEW ORLEANS-LAKEFRONT ARPT: Mound of sand N end rnwy 35, 1200′ long 800′ wide 7′ high lgtd and mrkd. Rnwy 17, 528′ tmpry displaced threshold remain til Dec 31, 1966. Rnwy 4 threshold displaced 700′ NE mrkd and lgtd. Rnwy length btn threshold reduced to 2500′. Rnwy 31 threshold displaced 637′ N, mrkd and lgtd. Rnwy length between threshold reduced to 3163′. Sandbard extends into Lake Pontchartrain aprxly 100′ N of apch end of seaplane ramp. Use extreme caution apchg ramp.

NEW ORLEANS INTL ARPT (MOISANT FLD): Rnwy 5-23 inop indef. Rnwy 1 threshold lgts moved 150′ N, rnwy length reduced to 6850′, use caution lndg rnwy 1 apch end aprxly 18 inches lower than rnwy level. E/W txwy clsd from firehouse to center txwy W repaving, lgtd with red flashing lgts.

MAINE

MILLINOCKET MUNI ARPT: Acft using rnwys 16-34 and 11-29 not visible to each other til apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4-22 and 15-33 not visible to each other until apchg intersection.

MARYLAND

CUMBERLAND MUNI ARPT: Extensive glider activity week ends and holidays.

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200′.

SALISBURY, WICOMICO COUNTY ARPT: Rnwy 4-22 clsd til aprxly Oct. 15.

TOWSON: 10′ balloon ascending 1000′ per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

ORANGE MUNI ARPT: Summer operns in efct Apr 1–Dec 15. Use paved areas only. All rnwys open.

WORCHESTER MUNI ARPT: Rnwy 15-33 clsd 1000–2300Z Mon-Sat except when weather below circling minimums until aprxly Oct 31, due constr.

MICHIGAN

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900′ smoke stack 3 mi NW.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58′00″N long 83°47′30″W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000′ AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000′ AGL.

MARQUETTE RDO: DME inop UFN.

OWOSSO CITY ARPT: Obstn lgts inop on 210′ twr lctd 5 mi SE.

SAULT STE MARIE: Daily blasting excp Sun btn hrs of 1500–1630 CST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)

MINNESOTA

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

LITTLE FALLS MUNI ARPT: NW/SE rnwy clsd for constr UFN. Hvy equipment may cross N/S rnwy.

MINNEAPOLIS ARTCC: Radar weather advisory service is available in positive control area within the Minneapolis Center area except E of 91° 0′ long. Limited radar service for tfc ctl problem solving is available in the Minneapolis positive control area W of a line from Fargo, N.D. to Sioux Falls, S.D. Mon-Fri from 1000 CST to 2200 CST.

NISSWA, HEYWOOD GULL LAKE ARPT: Clsd UFN.

MISSISSIPPI

HATTIESBURG MUNI ARPT: Rnwys 13–31 and 8–26 clsd until Feb 1967.

MISSOURI

ST. LOUIS, LAMBERT—ST. LOUIS ARPT: NW 2500′ rnwy 12R-30L clsd 24 hrs daily. 6′ barricades on clsd portion of rnwy flagged. Apch lgts rnwy 12R inop.

MONTANA

BILLINGS, LOGAN FLD: First 500′ rnwy 27 clsd due constrn. 8100′ avbl lndg/tkof both directions til aprxly Nov 19.

BUTTE, SILVER BOW COUNTY ARPT: Rnwy 2-20 lgts inop UFN.

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

GREAT FALLS INTL ARPT TWR: ILS LOM serving rnwy 34 shutdown for mod.

JORDAN ARPT: Clsd when temperature 90° or higher due oil seepage.

POLSON ARPT: Clsd until aprxly Oct 25, for constr.

NEBRASKA

FAIRMONT, STATE ARPT: Clsd UFN due rnwy repairs.

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56'50''N, long 98°31'15''W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000' AGL Mon-Fri 1400-2230Z UFN.

NEVADA

LOVELOCK, DERBY FLD: One or two moored balloons 12' in diameter in enshrouding parachute will be operating about 17 nmi W from 8AM to 9PM local standard time until March 31, 1967. Surface to 6700' MSL or 2500' above test site. Balloons equipped with red flashing lights at ngts.

NEW HAMPSHIRE

LANCASTER, GRABOR ARPT: Clsd UFN—constr.

LEBANON, REGIONAL ARPT: Rnwy 18-36 clsd due constr.

NEW JERSEY

ATLANTIC CITY, BADER ARPT: Banner towing operns 1000-dusk til Nov 1.

ATLANTIC CITY, NAFEC/ATLANTIC CITY (POMONA) ARPT: VASI lgts operg intermittently rnwy 13. Not authorized for civil use. Rnwy 4-22 clsd til aprxly Dec 15. Other rnwys clsd when necessary.

LAKEWOOD ARPT: Avoid area of chicken farm lctd on 240° mag brg 6000' from rnwy.

OCEAN CITY MUNI ARPT: Open daigt operns only. No refueling or other services available due constr UFN.

READINGTON, SOLBERG-HUNTERDON ARPT: Rnwys 1-28, 13-31, 14-32 and all grass areas closed.

NEW MEXICO

CARLSBAD: An abandoned arpt lctd adj to VOR bldg; strip dangerous—should not be used.

DEMING MUNI ARPT: 1600' rnwy lgts on W end rnwy 8-26 inop. Usable length 8100' day; 6500' ngt.

RUIDOSO MUNI ARPT: 700' high terrain N. Tkofs and Go arounds hazardous on rnwy 36. All tkofs S regardless of winds.

NEW YORK

ALBANY COUNTY ARPT: 500' S end rnwy 1-19 unusable due constr.

ALBANY COUNTY ARPT TWR: ILS lclzr and glide slope shut down til aprxly Nov 15 due rnwy constr.

CICERO, MICHAEL FLD: Arpt clsd all transient acft excp tmpry NW/SE strip N of clsd rnwy 9-27 emgcy only.

HORNELL MUNI ARPT: Maintain 2500' MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

ISLIP, LONG ISLAND-MacARTHUR ARPT: Neon ladder apch lgt sys inop. Standard apch lgt sys, with sequence flashers will be comsnd June 1, 1967.

ITHACA RDO: Tmpry Rbn operg til aprxly Dec 15. Lctd lat 42°29'21'', long 76°27'38''. Freq: 388 kc. May var: 10°W. Class MHW. VOR shut down Oct 13 til aprxly Nov 11.

✓**LAKEVIEW, HAMBURG ARPT:** Name changed to Hamburg Arpt.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constrn N end rnwy.

NEW YORK, LA GUARDIA ARPT: Due to constr rnwy 13 lndg and take off length 5971'; rnwy 31 take off length 5971'. Rnwy 13 VASI inop UFN. Oct 2 thru Oct 31, arpt clsd all fixed wing acft btn 2330 and 0630 lcl time Sun ngt thru Fri morning due constr.

NEW YORK, LA GUARDIA ARPT: Restriction for turbojet acft on rnwys 4 and 22 discontinued. Disregard Remarks in AIM, Part 2, Airport Directory.

STORMVILLE ARPT: Constr in progress til aprxly Nov. 16.

SYRACUSE, HANCOCK ARPT: Sep 26-Oct 13, first 1500' rnwy 28 clsd; 1450 rnwy 32 clsd. Displaced thresholds mrkd.

WHITE PLAINS, WESTCHESTER COUNTY ARPT: Apch lgt sys 2705' from end rnwy 16.

NORTH CAROLINA

ASHEBORO MUNI ARPT: Clsd til aprxly Jan 25, 1967.

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500' pattern from the west.

NORTH DAKOTA

BEULAH ARPT: Power line across SE end NW/SE rnwy.

FARGO, HECTOR FLD: First 1000' rnwy 17-35 clsd til aprxly Nov 15 due constr. Usable length 8151'. Rnwy 17 threshold lgts displaced 1000'.

GRAND FORKS INTL ARPT: Constr rnwy 17-35. Threshold displaced first 600' rnwy 35. REIL inop. Usable length rnwy 35 reduced to 4700' for lndgs and 5300' avbl tkofs til aprxly Nov 15.

MINOT, FLYING RANCH ARPT: Lgtg facils inop.

NEWTOWN ARPT: New arpt clsd; under constr.

OHIO

AKRON MUNI ARPT: Rnwy 7-25 clsd til aprxly Oct 19 due resurfacing and installation subdrain. Ctc Akron Rdo or twr for daily status.

ALLIANCE, BARBER ARPT: Rnwy 18-36 clsd N of int, tmpry threshold mrkd with tires.

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500' MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

CINCINNATI, GREATER CINCINNATI ARPT: New rnwy 9R-27L under constr til aprxly Dec 1. Abandoned rnwy 4-22 used as txwy.

CLEVELAND, CUYAHOGA COUNTY ARPT: Constr in progress apch area rnwy 23 til aprxly Dec 10. First 500' rnwy 23 clsd.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constr SE end rnwy 5 until fall 1966.

DAYTON, JAMES M COX-DAYTON MUNI ARPT: Constr extending N end rnwy 18-36 in progress for aprxly one year. Rnwy will be clsd intermittently til June 1967.

DAYTON, JAMES M COX-DAYTON MUNI ARPT TWR: Oct 15, ILS OM and LOM will be shut down til aprxly Nov 15 for relctn.

LEBANON, WARREN COUNTY ARPT: Clsd til aprxly Oct 31 due constr.

✓MILAN, EXIT 7 ARPT: Name changed to Milan, Homestead Inn Arpt.

ST. CLAIRSVILLE, ALDERMAN FLD: Rotating bcn inop.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400-2300 UFN.

OKLAHOMA

FREDERICK MUNI ARPT: Mil jet acft operg in tfc patn dalgt hrs UFN. AAS avbl on 120.8 mc.

NORMAN, WESTHEIMER FLD: Tmpry ctl twr in opern Oct 22, Nov 5, 12, 24. Freqs: 123.9, 121.5 tsmtg and revg. 122.5 revg only. Lgt gun signals avbl.

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: Rnwy 17L-35R clsd all operns til aprxly Nov 15.

OREGON

CONDON ARPT: Rotating bcn and rnwy lgts inop UFN.

NORTH BEND ARPT: About 12 nmi NNE a moored aluminum colored V shaped balloon 75' long, approximately 40' diameter being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

ONTARIO MUNI ARPT: Rnwy 6-24 clsd UFN.

PENNSYLVANIA

BUTLER, GRAHAM FLD: Extensive glider operns wkends and occasionally during week. Operns will take place off to side of rnwy UFN.

COATESVILLE, CHESTER COUNTY AREA ARPT: Constr in progress til aprxly Jan 1967.

CONNELLSVILLE ARPT: Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

HAZELTON RDO: RBn inop.

MILTON RDO: VORTAC shut down til aprxly Oct 26.

MT. POCONO ARPT: First 200' rnwy 13-31 unusable due rnwy mrkg.

PITTSBURGH, GREATER PITTSBURGH ARPT: First 500' rnwy 10R clsd due constr til aprxly Oct 15.

PITTSBURGH GREATER PITTSBURGH ARPT TWR: ILS lclzr and glide slope rnwy 28L inop UFN.

ST. MARYS MUNI ARPT: Rnwy extension in progress til aprxly Feb 1967. Rnwy will remain open for use.

TITUSVILLE ARPT: Clsd due constr UFN.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000' from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.-Thornhurst-Wilkes-Barre.

SOUTH CAROLINA

COLUMBIA METROPOLITAN ARPT TWR: Oct 17, ILS LOM will be shut down til aprxly Oct 19.

GREENVILLE MUNI DOWNTOWN ARPT: Rnwy 36 threshold displaced 1800' N; rnwy 18 clsd lndg and tkof dalgt hrs. Rnwy 36 tkof only dalgt hrs Mon-Fri.

✓GREENVILLE MUNI DOWNTOWN ARPT TWR: ILS LMM decmsnd.

MONCKS CORNER MUNI ARPT: Clsd due constr UFN.

SUMTER, SHAW AFB RDO: VOR inop pending dismantlement.

SOUTH DAKOTA

BRITTON MUNI ARPT: N/S rnwy clsd UFN due constr.

HURON, HOWES MUNI ARPT: N/S rnwy clsd due constr til aprxly Nov 1.

LAKE ANDES MUNI ARPT: Clsd til aprxly Nov 1.

PIERRE MUNI ARPT: Rnwy 17-35 clsd from int rnwy 12-30 to S end; 5000' avbl; clsd to acft over 10,000 lbs. Rnwy lgts inop. Rnwy 7-25 clsd acft over 50,000 lbs.

RAPID CITY MUNI ARPT: Constr til aprxly Oct 23. Rnwy 1-19 clsd. Only 2500' rnwy 14-32 avbl til aprxly Oct 15.

REDFIELD ARPT INC: Clsd until aprxly Nov 1.

SIOUX FALLS, JOE FOSS FLD TWR: ILS lclzr and glide slope shut down Oct 17 til aprxly Oct 21 for major maintenance.

WATERTOWN RDO: Oct 11, VOR shut down til aprxly Oct 13 for mod.

TENNESSEE

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constr.

HALL, LAUDERDALE COUNTY ARPT: Abandoned arpt 1 mi NW. Unmrkd and extremely hazardous—not to be used for lndgs or tkofs.

LEWISBURG, ELLINGTON ARPT: Rotating Bcn inop

NASHVILLE RDO: DME shut down Oct 10 thru Oct 14.

ROGERSVILLE, STIPES STRIP: Clsd UFN.

TEXAS

AUSTIN, MUELLER MUNI ARPT: Rnwy 12L-30R and NE/SW txwy clsd til aprxly Jan 15, 1967. Rnwy 16L-34R clsd til aprxly Nov 1 due constr.

BROWNWOOD MUNI ARPT: Rnwy 17-35 clsd UFN.

COTULLA MUNI ARPT: Use bladed areas only.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

EL PASO INTL ARPT: Rnwy 8-26 will be clsd Oct 1 til aprxly Dec 1.

ELMDALE ARPK: New arpt clsd to all operns. Under constr 3 mi NE Abilene Muni Arpt.

FAIRFIELD, WATSON ARPT: Rnwy lgts inop UFN.

FORT WORTH, GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD: Rnwy 13-31 clsd til aprxly Nov 11 for repairs.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1-19 clsd UFN.

NAVASOTA MUNI ARPT: Clsd til aprxly Oct due constr.

NEW BRAUNFELS, CLEAR SPRING AUX ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs.

SAN ANTONIO INTL ARPT TWR: ILS (rnwy 3) shut down UFN due rnwy constrn.

SULPHUR SPRINGS MUNI ARPT: Bcn and rnwy lgts inop UFN.

TEMPLE, DRAUGHON-MILLER ARPT: Rnwy 11–29 clsd UFN.

WICHITA FALLS, SHEPPARD AFB/WICHITA FALLS AIR TRML: N 3000′ rnwy 17–35 clsd.

UTAH

DELTA MUNI ARPT: Lgts on both rnwys inop UFN.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100′ higher than canyon rim.

KANAB MUNI ARPT: Clsd UFN.

MILFORD RDO: DME will be shut down Oct 19 til aprxly Oct 28.

VIRGINIA

ALEXANDRIA, WASHINGTON-VIRGINIA ARPT: Runway 12–30 clsd intermittenly UFN due constr. Arpt clsd ngt operns.

CHARLOTTESVILLE-ALBEMARLE ARPT: Rnwy lgts tmprly low intensity. Strobe, and REIL inop. Ctc FSS prior to lndg.

CHARLOTTESVILLE-ALBEMARLE ARPT: ILS lclzr inop 2300–1100Z due rnwy constr.

CLIFDALE RDO: VOR unusable beyond 30 nmi and above 18,000′ til aprxly March 31, 1967.

DUBLIN, NEW RIVER VALLEY ARPT: First 200′ rnwy 23 unusable due rnwy extension in progress UFN.

FELKER RDO: VOR unusable excp for VFR practice use UFN.

GORDONSVILLE MUNI ARPT: Rotating bcn inop UFN.

GORDONSVILLE RDO: DME shut down til aprxly Oct 15.

HERNDON RDO: Oct 26, VORTAC will be shutdown thru Nov 9.

LEESBURG, GODFREY FLD: Hvy constr equipment operg within 100′ and parallel to N end rnwy on left side til aprxly Nov.

NORFOLK RDO: DME will be shut down Oct 24 til aprxly Oct 29. VOR will be shut down Oct 25 for 10 hrs.

WASHINGTON

✓DAVENPORT ARPT: Rnwy 3–21 permly clsd.

MARYSVILLE, CHADWICK SEAPLANE BASE: Clsd UFN.

✓OMAK, SKY ACRES ARPT: Rnwy 17–35 permly clsd.

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800–1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

WALLA WALLA, CITY COUNTY ARPT: Acft prohibited from flying over munition storage area lctd 2500′ left of apch end rnwy 20.

WEST VIRGINIA

PARKERSBURG RDO: Oct 17, VOR will be shutdown thru Oct 24.

✓TERRA ALTA, FORMAN FLD: Name changed to Terra Alta Arpt.

HUNTINGTON RDO: Rbn inop UFN.

WHITE SULPHUR SPRINGS, GREENBRIER ARPT: Hazardous ridge across rnwy, 200′ from apch end rnwy 26. Touchdown on this ridge prohibited.

WISCONSIN

BEAVER DAM ARPT: Unsafe for lndg due rufness sod UFN.

GREEN BAY RDO: Oct 31 DME will be shut down thru Nov 4 for mod. VOR will be shut down Nov 2.

GREEN BAY, AUSTIN STRAUBEL ARPT: Until aprxly Dec 1, constr NE end rnwy 6–24. NE 400′ clsd; 4800′ avbl.

GREEN BAY, AUSTIN STRAUBEL ARPT TWR: ILS lclzr and glide slope shutdown til aprxly Oct 31 for reletn.

LACROSSE RDO. MHW shut down UFN.

OSHKOSH, WINNEBAGO COUNTY ARPT TWR: ILS lclzr, glide slope and VOR will be shut down dalgt hrs til aprxly Oct 15.

OSHKOSH, WINNEBAGO COUNTY ARPT: Overlay work in progress rnwy 9–27. East 1600′ clsd, 4200′ avbl.

RHINELANDER RDO: VOR shut down during VFR dalgt hrs thru Oct 24.

WYOMING

CODY MUNI ARPT: Rnwy 9–27 clsd occasionally due parked acft til aprxly Oct.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

ROCK SPRINGS RDO: Oct 10, DME shut down til aprxly Oct 14. VOR shut down Oct 11 thru Oct 13 dalgt hrs only.

PUERTO RICO

SAN JUAN, ISLA GRANDE ARPT: Constr in progress new rnwy lgtg sys.

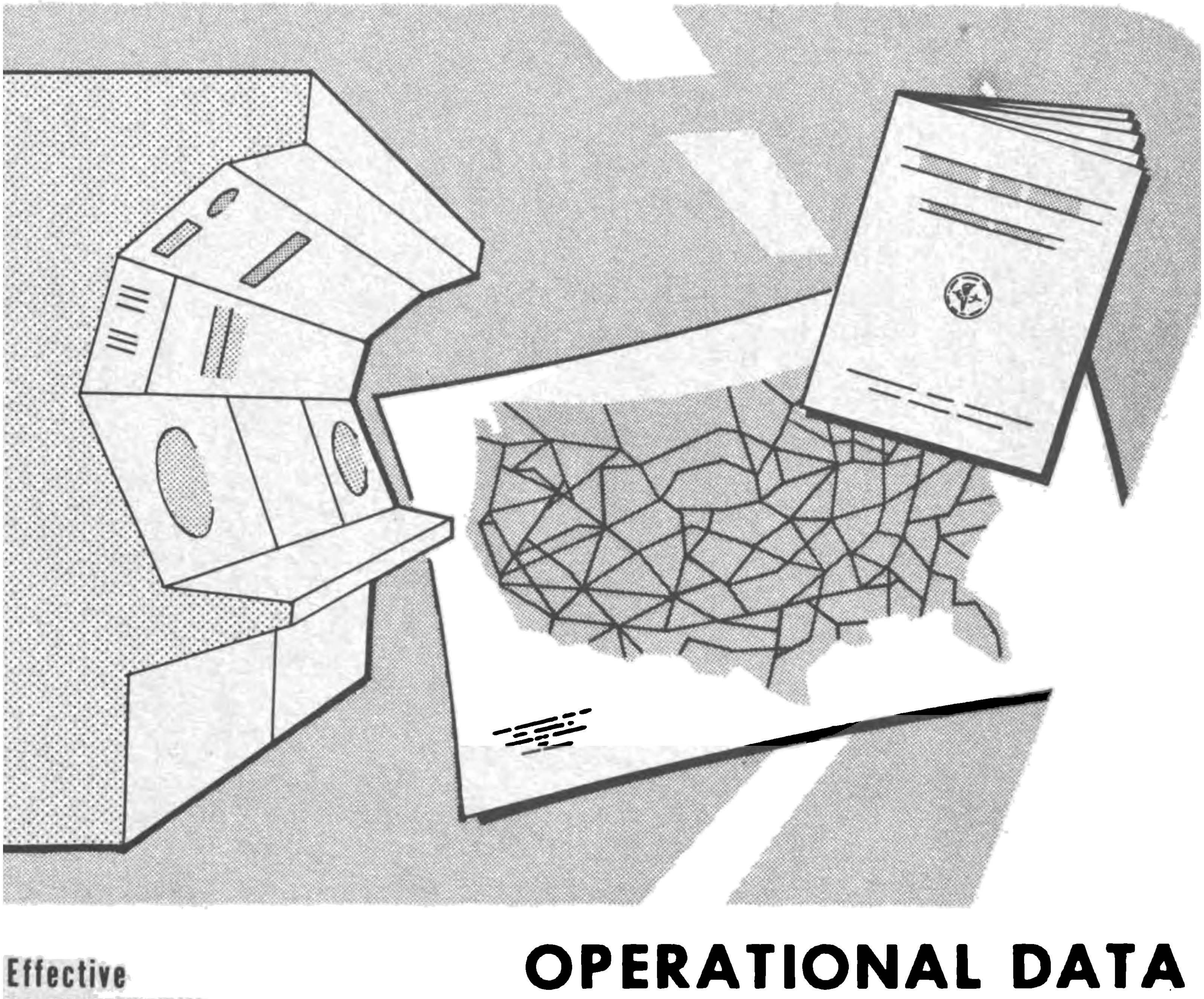
VIRGIN ISLANDS

CHARLOTTE AMALIE-ST. THOMAS, HARRY S TRUMAN ARPT: Til Oct 15, constr work in progress lengthening rnwy. Vehicles operg in apch to rnwy 9 and on N edge and E end rnwy 27. Areas mrkd and lgtd.

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

PART 3



Effective
10 NOVEMBER 1966
To 8 DECEMBER 1966

OPERATIONAL DATA AND NOTICES TO AIRMEN

AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot ● prefixing the heading, paragraph, or line. Highlights of each part are described below.

PART 1

Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PART 2

Airport Directory

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are available for transient civil use. It includes all of their facilities and services, *except communications*, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities.

Included, also, is a list of selected Commercial Broadcast Stations of 100 watts or more of power.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PARTS 3 AND 3A

Operational Data and Notices to Airmen

Part 3 is issued every 28 days and contains a Master Alphabetical Index covering all Parts of the AIM; an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Parachute Jump Areas; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Restrictions to Enroute Navigation Aids; VOR Receiver Check Points; Special General and Area Notices; New and Permanently Closed Airports, and Oil Burner Routes.

Part 3A is issued every 14 days and contains Notices to Airmen considered essential to the safety of flight as well as supplemental data to Part 3.

Annual subscription price $9.00. (Foreign mailing, $2.25 additional.)

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Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT–430, Washington, D.C. 20553.

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TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

Abbreviations 3-v
Address, Change of (See Notice of Editor) 3-57
Airport/Facility Directory Legend 3-vii
Airport/Facility Directory 3-1
Airports, New and Permanently Closed 3-123
Air Route Traffic Control Center Communications Frequency 3-46
Boeing Low Level IFR Operations 3-134
Chicago Terminal Area Chart 3-120
Chuckwagon Low Level Routes 3-127
Dates of Latest Editions (Aeronautical Charts) 3-156
District of Columbia Prohibited Area (Chart) 3-114
DME at ILS Locations 3-106
Expanded Radar Service for Arriving and Departing Flights 3-121
Flight Information Publication Policy 3-102
FSS and Weather Bureau Telephone Numbers 3-48
Low Altitude VFR Military Operations 3-134
Master Alphabetical Index 3-i
Military Aerial Refueling Tracks 3-133
Notices to Airmen See Part 3-A
Notice to Editor 3-57
Oil Burner Routes 3-136
Parachute Jumping Areas 3-60
Part-time Controlled Airspace Designation 3-105
Part-time Manned Facilities and AIDS 3-107
Preferred Routes 3-66
Publication Schedule 3-59
Radio Class Designation 3-x
Rerouted Aircraft and Altitude Restrictions 3-108
Restrictions to Enroute Navigation Aids 3-87
Runway Gradient 3-108
Sectional Chart Bulletin 3-81
Selective Calling System (SELCAL) Facilities Available 3-102
Special Notices 3-102
  General (Notices with universal application) 3-102
  Area Notices (by state, city, etc.) 3-109
Special Use Airspace 3-127
Standard Instrument Approach Procedures Actions 3-154
Standard Instrument Departures (SIDs) 3-73
Substitute Route Structure 3-76
VOR Receiver Check Points 3-94

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetical Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. Reference involving emergency activities or procedures is printed in bold-face type. The Part number is in bold type.

A

Part and Page

Abbreviations 3-v
Address, Change of (See Notice to Editor) 3-57
ADIZ and Designation Mountainous Areas Chart 1-86
ADIZ Procedures 1-84
Advisory Information, VFR 1-73
Advisory Service, Jet 1-59
Aeronautical Advisory Stations (UNICOM) 1-75
Aeronautical (Light) Beacons 1-17
Aeronautical charts, Dates of Latest 3-156
Aeronautical Information and the National Airspace System 1-24
Aeronautical Multicom Service 1-75
Aeronautical Publications 1-48
Aeronautical Terms, Glossary of 1- 1
(AID), Airport Information Desk 3-107
AIM Publication Schedule 3-59
Aircraft Call Signs 1-21
Aircraft Fuel 2, 3
Aircraft Storage/Repair 2, 3
AIRMETS and SIGMETS 1-32
Air Navigation Radio Aids 1- 7
Airport Advisory Service (Non-Radar) 1-73
Airport, Air Navigation Lighting and Marking Aids 1-17
Airport Directory 2-1
Airport Elevation 2, 3
Airport/Facility Directory 3- 1
Airport Identifying Code 1-18
Airport, IFR 2 & 3
Airport Information Desk (AID) 3-106
Airport, Lighted Land 1-17
Airport, Lighted Water 1-17
Airport Lighting Facilities 1-17, 2 & 3
Airport Marking Aids 1-19
Airport, Military (Lighting) 1-18
Airports of Entry 1-82, 2 & 3
Airport Runway Data 2, 3
Airports, New and Permanently Closed 3-123
Air Rescue Centers 1-92
Air Traffic Control Radar Beacon System (ATCRBS) 1-16, 1-63
Airway Beacons 1-18
Airway/Route Systems 1-58
Airway/Route Course Changes 1-59
Alcohol 1-41
Altimetry 1-30
Altitudes, Traffic Pattern 2
ANRA 1-7, 3-1
Alphabet, Phonetic 1-23
Approach Control 1-75
Approach Light System, Instrument 1-18
Approach Procedures Actions, Instrument 3-154
Area Notices 3-108
Arrival 1-73
ARTCC Communications Frequencies 3-46
ATC Clearance 1-54

Part and Page

(ATIS) Automatic Terminal Information Service 1-73, 3
Auxiliary Lights 1-17

B

Beacon, Airway 1-18
Beacon, Aeronautical (Light) 1-17
Beacon, Marker 1-10
Beacon Operation, Daylight 1-18
Beacon, Radio 1- 7
Beacon, Rotating 1-17
Beacon, Standards (deviations from) 1-18
Bird Hazards 1-44
Broadcast Stations, Commercial 2-229
Bulletin, Sectional Chart 3-80

C

Call Signs, Aircraft 1-21
Call Signs, Ground Stations 1-21
Carbon Monoxide 1-42
Ceiling 1-1, 1-33
Change of Address (Notice to Editors) 3-57
Changeover Points (VOR) 1-65
Chart Bulletin, Sectional 3-81
Charts, Dates of Latest Prints 3-156
Chart, Oil Burner Route 3-136
Chart, ADIZ and Mountainous Area 1-86
Civil Use of Military Fields 3-103
Class of VOR/VORTAC/TACAN 1-9
Clear Air Turbulance 1-33
Clearance, ATC 1-54
Climbing/Descending Aircraft 1-66
Cloud Heights, Reporting of 1-33
Code, NOTAM 1-25
Collision Reporting, Near Mid-Air 1-40
Commercial Broadcast Stations 2-229
Communications, Direct Pilot/Controller 1-70
Communications, Enroute 1-67
Communications Failure 1-93
Communications Frequencies, ARTCC 3-46
Compass Locator, ILS 1-11
Composite Flight Plan (VFR/IFR) 1-49
Consolan 1-14
Contact Procedure, Radio Telephone 1-21
Continental Control Area 1-59
Crash Locator Beacon 1-91
Cruising Altitudes, Enroute 1-72

D

Departure 1-53
Departure Communications 1-53
Departure Control 1-57
Departure, Standard Instrument (SID) 1-55, 3-73
Designated Mountainous Areas chart and ADIZ 1-86
Designation, Radio Class 3-x
Detouring Thunderstorms 1-36
Direct Communications, Controllers/Pilots 1-70
Direct Flights 1-51

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Direction Finder (VHF/UHF) 1-14
Directional Reporting 1-65
Distance Measuring Equipment (DME) 1- 8
District of Columbia Prohibited Area (Chart) 3-114
Drugs 1-41

E

Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1- 90
Emergency Signals (Visual) 1-96
Enroute 1-58
Enroute Communications 1-67
Enroute Cruising Altitudes 1-72
Entry and Departure Requirements, U.S. 1-81
Expanded Radar Service for Arriving and
  Departing Flights 1-75, 3-121

F

FAA and NORAD Chart 1-89
Fatigue 1-42
Figures 1-29
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-102
Flight Information Publication Policy 3-102
Flight Service Stations/Weather Bureau Offices 3-48
Flight Standard District Offices 1-97
Frequency Pairing Plan 1- 9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-94

G

General Notices 3-102
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1- 1
Good Operating Practices 1- 5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H

Hand Signals 1-80
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-221
Holding 1-61
Hypoxia 1-41

I

IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-76
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-154
Instrument Departures (SID's), Standard 1-55, 3-73
Instrument Runway 1-20
Interception Pattern for Identification of
  Transport Aircraft 1-88
Interception Signals, U.S. 1-87

J

Jet Advisory Service 1-59

K

Key to Aviation Weather Reports 1-36

Part and Page

L

Lake, Island and Mountain Reporting Service 1-67
Landing 1-79
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-79
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-134

M

Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-80
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-133
Mountainous Area Chart and ADIZ 1-86

N

National Search and Rescue Plan 1-91
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-123
NORAD Chart, FAA and 1-89
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-57
Notices, Area 3-109
Notices, Special 3-102
Notices to Airmen 3A

O

Oil Burner Routes 3-136
Omnidirectional Range (VOR) 1-7

P

Panic 1-43
Parachute Jumping Areas 3-60
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-105
Part-time Manned Facilities and AIDS 3-107
Permanently Closed Airports, New and 3-123
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-67
Positive Control Area 1-59
Precision Approach, Radar 1-15
Preferred Routes 3-66
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-102
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-59

R

Radar 1-15
Radar Assistance to VFR Aircraft 1-66
Radar Beacon System (ATCRBS) 1-63
Radar Controlled Approaches 1-15
Radar Enroute Service 1-60
Radar Monitoring of Instrument Approaches 1-77
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-74
Radio Beacon 1- 7
Radio Class Designation 3-x
Radio Communications Failure 1-93
Radio Interference 1-14
Radio Range L/MF 1- 7

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radiotelephone Phraseology and Techniques 1-21
Receiver Check Points, VOR 1-8, 3-94
Refueling Tracks, Military Low Altitude Aerial 3-133
REIL, Runway End Identifiers 1-19, 2, 3
Repair, Aircraft 2, 3
Reporting, Directional 1-65
Reporting Service, Lake, Island and Mountain 1-67
Restricted Airspace 1-66
Restrictions to Enroute Navigation Aids 3-87
Rocky Mountain Reporting Service 1-69
Rotating Beacon 1-17
Runway End Identifiers (REIL) 1-19, 2, 3
Runway Gradient 3-108
Runway, Longest 2, 3
Runway Marking 1-19
Runway Surface 2, 3
Runway Visibility (RVV) 1-34
Runway Visual Range (RVR) 1-34
Runway Weight Bearing Capacity 2, 3

S

Safety of Flight (Wake Turbulence) 1-37
SCANTANA Procedures 1-84
Scheduled Weather Broadcasts 1-31
Scuba Diving 1-43
Seaplane Bases 2-216
Search and Rescue 1-91
Sectional Chart Bulletin 3-81
Selective Calling System (SELCAL) 3-102
Sectional Charts, Dates of latest prints 3-156
SIDs (Standard Instrument Departures) 1-55, 3-73
SIGMET (Significant Meteorology), AIRMETS 1-32
Signals, Emergency 1-95
Signals, (Visual), Emergency 1-96
Signals, Light 1-53
Simultaneous Voice Transmissions from a
  Single Location 1-12
Special Notices 3-102
Special Use Airspace 1-71, 3-127
Special VFR Flight Clearance Procedures 1-54
Speed Adjustment of Arriving Aircraft 1-78
Standard Instrument Approach Procedures
  Actions 3-154
Standard Instrument Departures (SIDs) 1-55, 3-73
Storage, Aircraft 2, 3
Substitute Route Structure 3-76
Surveillance Radar 1-15

Part and Page

T

TACAN 1- 8
Terminal Radar Service 1-75
Thunderstorms 1-36
Time 1-22
Traffic Information Service, Radar 1-74
Traffic Pattern Altitudes 2
Traffic Pattern Direction, Landing 1-79
Transcribed Weather Broadcasts 1-31
Turbulence, Clear Air (CAT) 1-33
Turbulence, Wake 1-37
Two-Way Radio Communications Failure 1-93

U

UNICOM (Aeronautical Advisory Station) 1-75, 2, & 3
U.S. Entry and Departure Requirements 1-81

V

VASI (Visual Approach Slope Indicator) 1-19
Vertigo 1-42
VFR Advisory Information 1-73
VFR Conditions on Top 1-51
VFR Flight Clearance Procedures 1-55
VHF UHF Direction Finder 1-14, 3
Visibility, Observations 1-34
Vision 1-42
Visual Approach Slope Indicator (VASI) 1-19
VOR 1- 7
VOR Changeover Points 1-65
VOR Receiver Check Points 1-8, 3-94
VORTAC 1- 8
VOT (VOR Test Signal) 1-8, 3

W

Wake Turbulence 1-37
Warning Areas 1-71
Weather 1-31
Weather Briefing 1-49
Weather Broadcasts Format 1-32
Weather Broadcast, Scheduled 1-31
Weather Broadcast, Transcribed 1-31
Weather Broadcast, Unscheduled 1-32
Weather Bureau Offices/Flight Service Stations 3-48
Weather Radar 1-34
Weather Advisories, In-Flight 1-32

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in addition to frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower (City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense Visual Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	groundcontrolled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend or Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical radiators), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum en-route IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment
	visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmission.
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omnidirectional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omnidirectional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (—) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, clay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S–000).

S–Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC–3), etc.

T–Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC–6), etc.

TT–Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T–).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

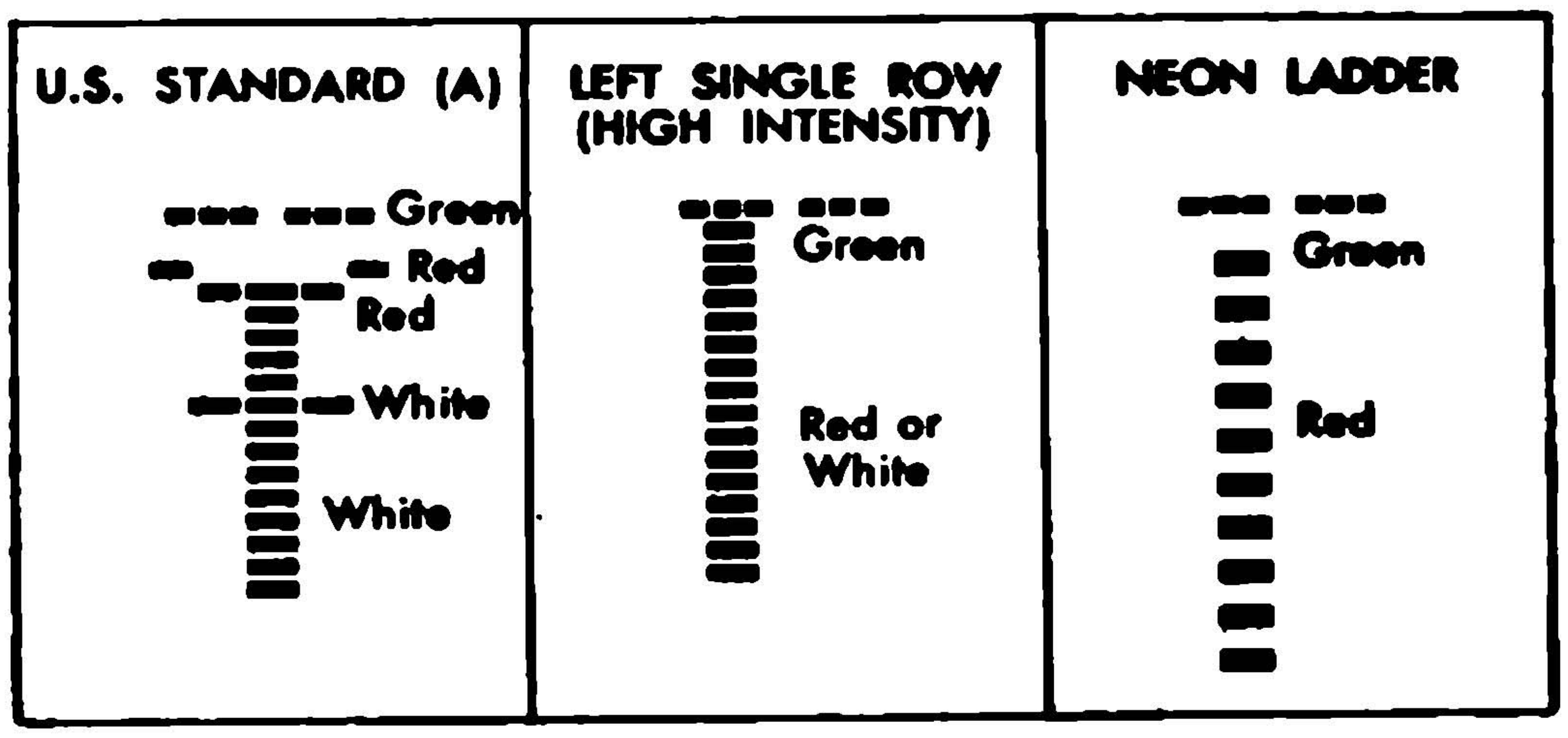
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting. An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000′ out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)
13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	**80 oct., at least.**
F2	**80/87 oct., or lower.**
F3	**91/96 oct., or lower.**
F4	**100/130 performance rating, or lower.**
F5	**115/145 performance rating, or lower.**

TURBINE FUELS

TP–1	**650 turbine fuels for civil jets.**
JP–1	**(Kerosene), JP–3, JP–4, JP–5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25–September 26 and April 25–October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.
VASI—Visual Approach Slope Indicator, applicable runway provided.
RVV—Runway Visibility Values, applicable runway provided.
RVR—Runway Visual Range, applicable runway provided.
FSS—The name of the associated FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481-5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"FEE" indicates landing charges for private or nonrevenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"Rgt tfc 13–31" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a cross-out: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e.. "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

AIRPORT/FACILITY DIRECTORY

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

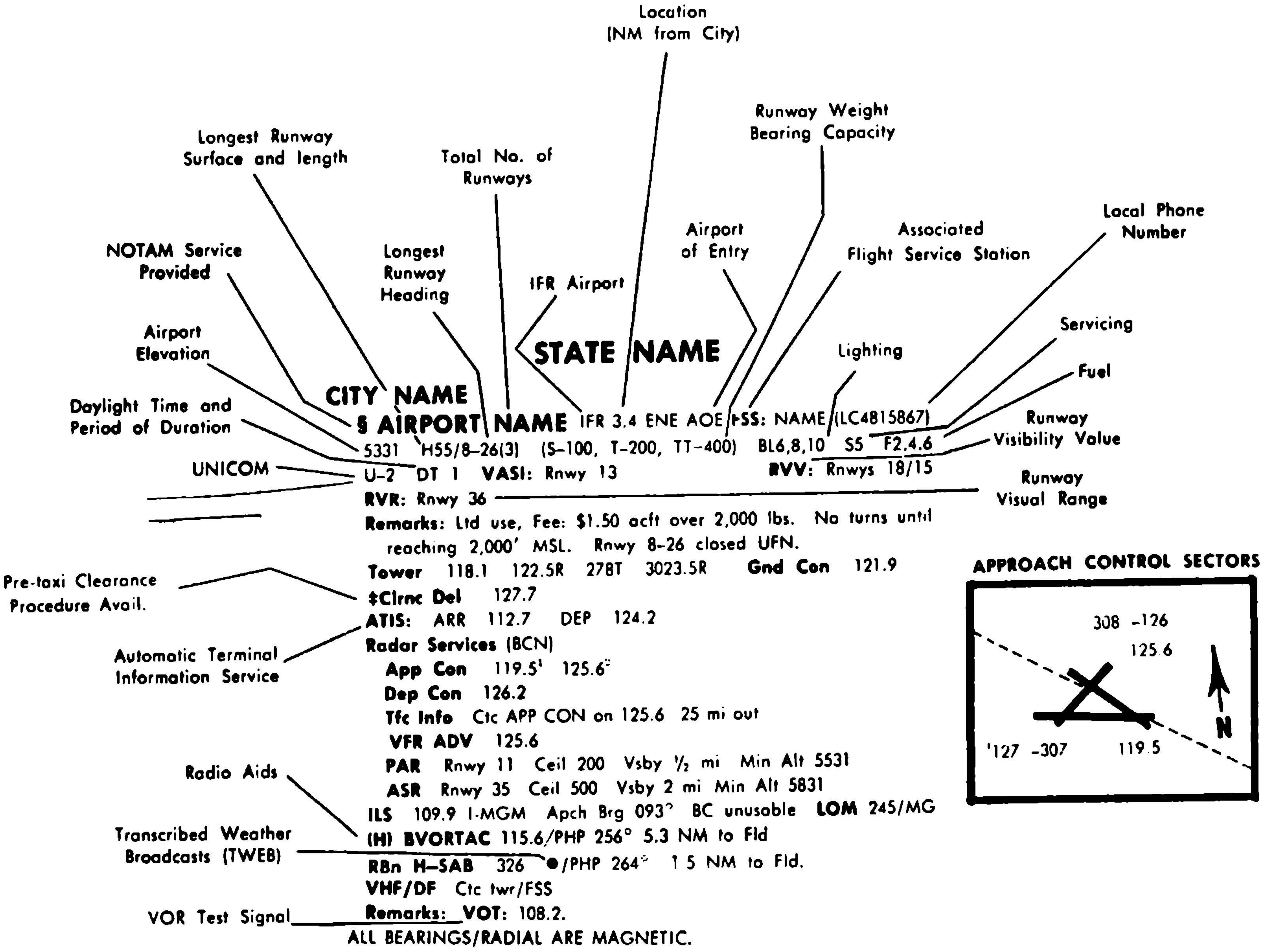
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U-1—122.8 mc (at airports without a control tower).

U-2—123.0 mc (at airports with a control tower).

SAMPLE



STATE NAME

CITY NAME

§ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC4815867)
5331 H55/8-26(3) (S-100, T-200, TT-400) BL6,8,10 S5 F2,4,6
U-2 DT 1 **VASI:** Rnwy 13 **RVV:** Rnwys 18/15
RVR: Rnwy 36
Remarks: Ltd use, Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000′ MSL. Rnwy 8-26 closed UFN.
Tower 118.1 122.5R 278T 3023.5R **Gnd Con** 121.9
‡Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
App Con 119.5^1 125.6^2
Dep Con 126.2
Tfc Info Ctc APP CON on 125.6 25 mi out
VFR ADV 125.6
PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° BC unusable **LOM** 245/MG
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H-SAB 326 ●/PHP 264° 1 5 NM to Fld.
VHF/DF Ctc twr/FSS
Remarks: **VOT:** 108.2.
ALL BEARINGS/RADIAL ARE MAGNETIC.

Location (NM from City)
Runway Weight Bearing Capacity
Longest Runway Surface and length
Total No. of Runways
Local Phone Number
Airport of Entry
Associated Flight Service Station
NOTAM Service Provided
Longest Runway Heading
IFR Airport
Servicing
Airport Elevation
Lighting
Fuel
Daylight Time and Period of Duration
Runway Visibility Value
UNICOM
Runway Visual Range
Pre-taxi Clearance Procedure Avail.
Automatic Terminal Information Service
Radio Aids
Transcribed Weather Broadcasts (TWEB)
VOR Test Signal
APPROACH CONTROL SECTORS
308 -126
125.6
N
'127 -307
119.5

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000' MSL	115.2 smi (100 nmi)
L	Up to 18,000' MSL	46.06 smi (40 nmi)
T	Up to 12,000' MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

NOTE: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiators), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600–2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

ALABAMA

ANNISTON (L) BVOR 108.8/ANB FSS: ANNISTON
RBn BMH [1]278/ANB
Remarks: [1]For use within 10 mi stn ADF apch only.

§BIRMINGHAM MUNI *IFR* 4NE FSS: BIRMINGHAM on fld
643 H92/5-23(2) (S-120, T-170, TT-300) BL6,8A,9,10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Jet barrier on overrun rnwy 23. Rnwy 23 threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
ATIS: 114.4
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I-BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) VORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H-SAB 224O/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H-SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM FSS: MOBILE

BROOKWOOD (L) BVOR 111.0/BWA FSS: BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU FSS: HUNTSVILLE

§DOTHAN *IFR* 7NW FSS: DOTHAN on fld
395 H56/18-36(3) (S-60, T-105, TT-190) BL6 S5 F4 U-1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
VFR ADV: Ctc Cairns APP/DEP CON
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF Ctc FSS.

EUFAULA (L) BVOR 109.2/EUF FSS: DOTHAN

GADSDEN (L) BVORTAC 112.3/GAD FSS: ANNISTON

HAMILTON (L) BVOR 110.4/HAB FSS: MUSCLE SHOALS

§HUNTSVILLE-MADISON *IFR* 3S FSS: MUSCLE SHOALS (DL)
619 H52/18-36 (2) (S-50, T-85, TT-130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I-HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF

MOBILE
§BATES FLD *IFR* 9W FSS: MOBILE on Fld
217 H78/14-32(3) (S-40, T-150, TT-220) BL4,6,8A,9 S5 F5 JP1, U2 RVV Rnwy 14
Remarks: U.S. Customs lndg rgts rqd. Threshold displaced 1000′ NW runway 32.
Tower 118.3 126.2 122.5R Gnd Con 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I-MOB Apch Brg 141° BC unusable LOM: 218/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn FH 243/MO 140° 4.6NM to fld.

ALABAMA—*Continued*

Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090–110° rad. LOM is BH.

MONROEVILLE (L) BVOR 116.8/MVC **FSS: MOBILE**

MONTGOMERY
§DANNELLY FLD *IFR* 6SW **FSS:** MONTGOMERY on Fld
221 H90/9-27(3) (S-120, T-170), TT-300) BL4,6,8A,9 S5 F5 JP1 U2 **RVR:** Rnwy 9
Remarks: J-Bar runwy 9-27. Closed to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel. Rnwy 15-33 restricted to acft 12,500 lbs or less.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I-MGM Apch Brg 093° **LOM** 245/MG
VHF/DF Ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL **FSS:** MUSCLE SHOALS

REDSTONE (L) VOR 111.2/HUA
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM

TUSCALOOSA (L) BVORTAC 117.8/TCL **FSS:** TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE **FSS:** MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK **FSS:** PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG **FSS:** PHOENIX

COCHISE (L) BVORTAC 110.4/CIE **FSS:** DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG **FSS:** DOUGLAS

FLAGSTAFF (L) BVOR 108.2/FLG **FSS:** PRESCOTT

GILA BEND (H) BVORTAC 116.6/GBN **FSS:** PHOENIX

GRAND CANYON (L) BVOR 109.0/GCN **FSS:** PRESCOTT

LIBBY (L) VOR 111.6/FHU

PEACH SPRINGS (H) BVORTAC 112.0/PGS **FSS:** PRESCOTT

PHOENIX
§SKY HARBOR MUNI *IFR* 3E **FSS:** PHOENIX on Fld
1122 H103/8R-26L(2) (S-100, T-200, TT-370) BL4,10 S5 F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R-26L avbl ngts. Rgt tfc rnwys 8R, 26R.
Phoenix Tower 118.7[1] 122.5R 120.9[2] **Gnd Con** 121.9
Clnc Del 121.9
ATIS: 120.4
Radar Services:
Phoenix App Con 119.2[3] 124.1[4] 115.6T
Phoenix Dep Con 118.1[3] 120.7[4]
Phoenix (H) BVORTAC 115.6/PHX 256° 5.3 NM to fld.
Phoenix RBn BH 326/PHX 264° 1.5NM to fld.
VHF/DF Ctc FSS.
Remarks: **VOT:** 109.0 [1]Rnwy 8L-26R [2]Rnwy 8R-26L [3]265-065° [4]066-264°

PRESCOTT (H) BVORTAC 114.1/PRC FSS: PRESCOTT

ST. JOHNS (H) BVORTAC 112.3/SJN **FSS:** ZUNI

ARIZONA—*Continued*

SAN SIMON (H) BVORTAC 115.4/SSO FSS: DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC FSS: PRESCOTT

§TUCSON INTL *IFR* 6S AOE FSS: TUCSON on Fld
2630 H120/12L–30R(3) (S–100, T–200, TT–360) BL4 S5 F5, JP1, JP4 U2
Remarks: 5649′ avbl lndg rnwy 3, 6000′ avbl rnwy 21. Jet arresting gear rnwy 12L–30R. 1000′ overrun each end rnwy 12L–30R.
Tower: 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.5 134.1 126.2 125.9 125.1 122.5R
Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.
ASR Rnwy 30 Ceil 400 Vsby 1 mi Min Alt 3030.
VHF/DF[1] Ctc FSS.
(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.
RBn H–SABZ 338●/TUS 083° 10.6NM to fld.
Remarks: [1] Unusable beyond 40 NM below 13,500′ MSL 345–070° below 12,500′ MSL 070–090°.

WINSLOW (H) BVORTAC 112.6/INW FSS: PRESCOTT
RBn H–SAB 266●/INW

§YUMA MCAS/INTL *IFR* 3S AOE FSS: YUMA on Fld
213 H133 (3L–21R(4) (S–103, T–225, TT–410) BL4,6 S5 F4 U2
Remarks: Rnwy 17–35 GWT (S–170, T–200, TT–400). Jet arresting gear rnwys 3L–21R, 3R–21L.
Tower 126.2 121.5 122.5R 119.3 **Gnd Con:** 121.9
VHF/DF Ctc twr.
(H) BVORTAC 116.8/YUM 167° 6.0NM to fld.
RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH
RBn HW 311/BYH

BRUINS RBn MHW 215/BSA FSS: MEMPHIS

CABOT (L) VOR 108.4/CBT
RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT FSS: EL DORADO

DRAKE (T) BVOR 108.8/DAK FSS: FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD FSS: EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV FSS: FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP FSS: HARRISON

§FORT SMITH MUNI *IFR* 4SE FSS: FORT SMITH on Fld
468 H80/7–25(2) (S–90, T–120, TT–) BL4,6,8A,9 S5 F–5, JP–1 U2 **RVV:** Rnwy 25
Remarks: Jet barrier rnwy 7–25.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 125.4 126.2 118.3 110.4T 109.5T
ILS 109.5 I–FSM Apch Brg 254° **LOM:** 223/FS
(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.
RBn HW 223/FS 254° 6.9NM to fld.
Remarks: LOM is HW.

HARRISON (L) BVOR 110.8/HRO FSS: HARRISON

HOT SPRINGS
§MEMORIAL FLD *IFR* 3SW FSS: PINE BLUFF (LC NA 4–4481)
535 H50/5–23(2) (S–35, T–49, TT–78) BL4 S5 F4 JP–1
Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7
Hot Springs App Con 120.3 122.5R 110.0T 248T
Hot Springs (L) VOR 110.0/HOT on fld.
Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK
§ADAMS FLD *IFR* 2E FSS: PINE BLUFF (LC FR 6–4348)
257 H70/4–22(3) (S–49, T–173, TT–136) BL4,6,8A,9 S5 F4, JP1, JP4 U2 **RVV:** Rnwy 4

ARKANSAS—*Continued*

Remarks Fee civil acft over 10,000 lbs.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
ATIS[3]: 113.9
Radar Services: (BCN)
Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T
Little Rock Dep Con 118.1
Tfc Info All inbnd acft ctc App Con 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I–LIT Apch Brg 041° **LOM:** 219/LI
Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.
Little Rock RBn H–SAB 353●/LIT 316° 3.3NM to rnwy 32.
Remarks: [1]001–180° [2]181–360 [3]Opers 1300–0400Z.

MONTICELLO (L) BVORTAC 111.6/MON FSS: PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF FSS: PINE BLUFF

ROGERS RBn MHW 263/ROG FSS: FAYETTEVILLE

STUTTGART RBn MHW 269/SGT FSS: PINE BLUFF
Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK FSS: TEXARKANA
RBn SBH 329/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG FSS: WALNUT RIDGE

CALIFORNIA

ARCATA
§ARCATA-EUREKA *IFR* 7NW FSS: ARCATA on Fld
217 H60(2)(13–31) (S–90, T–140, TT–260) BL5,6,8A,9,10 F4 DT2
VASI: Rnwy 13 **RVR:** Rnwy 31
Remarks: Rgt tfc rnwys 13, 19.
ILS 109.5 I–ACV Apch Brg 314° **BC unusable** **LMM:** 233/CV
VHF/DF Ctc FSS.
Remarks: SLMM unusable btn 120–150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE FSS: PASO ROBLES

BAKERSFIELD
§MEADOWS FIELD *IFR* 4NW FSS: BAKERSFIELD on Fld
488 H57/12L–30R(2) (S–110, T–170, TT–300) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R
Tower 118.1 122.5R **Gnd Con** 121.9
Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8
ILS 109.9 I–BFL Apch Brg 299° **LOM:** 278/BF
VHF/DF Ctc FSS.
Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR FSS: SALINAS

BLYTHE (H) BVORTAC 117.4/BLH FSS: BLYTHE
RBn SABH 251●/BLH

BURBANK
§LOCKHEED AIR TERMINAL *IFR* 3NW FSS: LOS ANGELES (DL)
775 H69 (15–33)(2) (S–80, T–150, TT–280) BL5,6,8A,9,11 S5 F5, JP1, JP4 U2 DT2 **REIL** rnwy 15
Remarks: Rnwy 15 displaced threshold 900′. ′S 6060′ avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ lndg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15–33 lgtd N of rnwy 7–25 only.
Burbank Tower 118.7 122.7R ~~[illegible]~~ **Gnd Con** 121.9
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
Tfc Info Ctc Burbank App Con 30 NM out on 120.9.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS[2] 109.5 I–BUR Apch Brg 076° **LOM:** 272/BU
VHF/DF[1] Ctc twr.
Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°–085°; below 4000′ 085°–240°; below 6000′ 240°–320°; below 10,000′ 320–360°. [2]Glide slope unusable below 1075′ MSL.

CALIFORNIA—*Continued*

CAMARILLO RBn HW 359/CAV **FSS:** LOS ANGELES

CASTLE (L) VOR 114.2/MER
RBn MHW 409/ME

CHICO (T) BVOR 109.8/CIC **FSS:** RED BLUFF

COLTON RBn HWZ 397/SB

CONCORD
§BUCHANAN FIELD *IFR* 1N **FSS:** OAKLAND (DL)
19 H50/1–19(3) (S–60, T–80, TT–130) BL5 S5 DT2 F4
Tower[1] 119.7 122.4R **Gnd Con** 121.9
Radar Services:
Travis App Con 119.9
T–BVOR 110.6/CCR 171° 3.1 NM to fld.
Remarks: [1]Oper 1500–0700Z.

CRESCENT CITY (L) BVORTAC 109.0/CEC **FSS:** CRESCENT CITY

CULVER CITY
HUGHES 3SW **FSS:** LOS ANGELES (DL)
22 H88(1) L4 S3 F4 **REIL:** Rnwy 23
Remarks: Fee. Clsd trans acft ofl bus, prior notification reqrd. Ctc 132.4 for rnwy lgts.
Tower:[1] 132.4 126.2 123.1 122.5R
Remarks: [1]Oper 1600–0145Z

DAGGETT (L) BVORTAC 113.2/DAG **FSS:** DAGGETT

DOWNEY RBn HW 371/DOW **FSS:** LOS ANGELES

EDWARDS (L) VORW 116.4/EDW
RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ
RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW **FSS:** BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM **FSS:** LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS **FSS:** MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT **FSS:** ARCATA

§FRESNO AIR TERMINAL *IFR* 5 NE **FSS:** FRESNO on fld
332 H92/11L–29R(3) (S–50, T–70, TT–140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.
Remarks: Rgt tfc rnwy 7 & 11. Jet barrier arresting gear 11L–29R.
Tower 118.7 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.6 126.9 122.6R
Dep Con 126.9
ILS 110.3 I–FAT Apch Brg 289° **LOM:** 266/FA
VHF/DF Ctc FSS.
(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.
RBn H–SAB 344●/FAT 049° 6.2 NM to fld.

§FRESNO–CHANDLER *IFR* 2W **FSS:** FRESNO (DL)
283 H35/11R–29L(2) (S–17 T–TT–) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 11R. Rnwy 29L threshold displaced 730′ NW, rnwy 11R displaced 495′ SE.
Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7
Radar Services: (BCN)
Fresno App Con 119.6 126.9
Fresno Dep Con 126.9
Remarks: [1]Oper 1400–0600Z.

FRIANT (L) BVORTAC 115.6/FRA **FSS:** FRESNO

§FULLERTON MUNI *IFR* 3W **FSS:** LOS ANGELES (DL)
96 H31/6–24(1) (S–8, T–, TT–) BL5,11 S5 F4 U2 DT2
REIL: Rnwy 24.
Remarks: Rnwy 6 threshold displaced 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 threshold displaced 263′ W. 2857′ avbl lndg rnwy 24. Rgt tfc rnwy 24. Entry alt 1200′ MSL. P-line NE. Overngt tiedown fee. Prior approval acft over 12,500 CWT and single eng acft 1000 or more hp.
Tower[1] 119.1 122.6R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Long Beach App Con 124.2 127.2 110.3T
Long Beach Dep Con 118.4 127.2
Remarks: [1]Oper 1400–0600Z.

GAVIOTA (L) BVORTAC 116.5/GVO **FSS:** SANTA BARBARA

GEORGE (L) VOR 108.6/VCV

GOFFS (L) BVOR 114.4/GFS **FSS:** NEEDLES

GORMAN (L) BVORTAC 116.1/GMN **FSS:** BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

§HAWTHORNE MUNI *IFR* 1E **FSS:** LOS ANGELES (DL)
64 H45/7–25(1) (S–30, T–50, TT–) BL4,11 S–5 F4 U2 DT2
REIL[1] Rnwy 25
Remarks: Rnwy 7 threshold displaced 1025′ E, 3975′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 475′ W. 4525′ avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. P-line NE. Rgt tfc E. [1]REIL inop 2300–0700. Prior approval rqrd jet powered acft.
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 124.3[2] 125.2[3]
Remarks: [1]Oper 0700–2300 lcl time. [2]045°–224°. [3]225°–044°.

HAYWARD AIR TERMINAL *IFR* 2SW **FSS:** OAKLAND (LC 562–7607)
46 H52/10R–28L(3) (S–100, T–190, TT–290) BL5 S5 F4 DT2
Remarks: Rnwy 22 threshold relctd 1850′ SW; rnwy length 3150′. TPA 600′ excp rnwy 10L–28R 800′.
Tower 118.9 122.5R 212T **Gnd Con** 121.7
Radar Services:
Oakland App Con 118.1 116.8T
Oakland Dep Con 124.7 120.9 116.8T
RBn MHW 242/HWD 243° 4 NM to fld
Remarks: [1]Oper 0600–2400 lcl time.

HECTOR (H) BVORTAC 112.7/HEC **FSS:** DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL **FSS:** IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI **FSS:** SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS **FSS:** PALMDALE

LA VERNE
BRACKETT FLD *IFR* 1SW **FSS:** ONTARIO (DL)
997 H40/8–26(1) BL4 S5 U2 DT2
Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.
Tower[1] 118.2 122.7R ~~121.5~~ **Gnd Con** 121.7
VFR ADV: Ctc March APP CON 124.0, 122.5R/DEP CON 125.5, 122.5R
Remarks: [1]Oper 0700–2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN **FSS:** STOCKTON

LONG BEACH *IFR* 3NE **FSS:** LOS ANGELES (DL)
§LONG BEACH (Daugherty Fld)
58 H100/12–30(5) (S–65, T–110, TT–180) BL5,6,9,12 S5 F5, JP1, JP4 U2 DT2 **RVR:** Rnwy 30.
Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R 25R, 34R.
Long Beach Tower 119.4[1] 118.8[3] 120.5[2] 126.2[2] 122.4R[1] **Gnd Con** 121.9
ATIS: 110.3
Radar Services:
Long Beach App Con 124.2 127.2 110.3T
Long Beach Dep Con 118.4
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558

CALIFORNIA—*Continued*

ILS 110.3 I–LGB Apch Brg 300° **LOM** 233/LG
VHF/DF[1] Ctc twr.
(L) BVORTAC 115.7/LGB 274° 4.4NM to fld
Remarks: [1]For all left rnwys. [2]For all right rnwys. [3]Helio con. **VOT:** 109.0

§**LOS ANGELES INTL** ***IFR*** 9SW **FSS:** LOS ANGELES on Fld
126 H120/7R–25L(4) (S–100, T–180, TT–340)
BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R
RVV: Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R
Remarks: U.S. Customs lndg rgts arpt. Rnwy 34 threshold displaced 1679′ N. Rnwys 25L, 25R thresholds displaced 600′ W. Rnwy 16–34 (S125 T200+ TT400+).
Tower 118.9 119.8 120.8[1] 122.7R **Gnd Con** 121.6 121.8
‡**Clrnc Del** 128.5 121.4
ATIS: 108.5
Radar Services:
App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T
Dep Con 125.2[3] 124.3[2]
Tfc Info Expanded radar service avbl.
PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.
ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426
ILS[4] 109.9 I–LAX Apch Brg 248° **LOM:** 266/LA
VHF/DF ctc twr.
(H) BVORTAC 113.6/LAX at fld.
RBn SABH 332●/LAX 245° 3.4 NM to fld.
Remarks: [1]Heli Operns. [2]035–224° [3]225–044° [4]Glide slope unusable below 300′ MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)
§**VAN NUYS** ***IFR*** 3NW **FSS:** LOS ANGELES (DL)
800 H80/(16R–34L/(2) (S–70, T–120, TT–210) BL5,11 S5 F4 JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R
Remarks: Rnwy 16R threshold displaced 1431′ N. 6569′ avbl lndg rnwy 16R. Rnwy 16L–34R daylgt use only. Rnwy 16L threshold displaced 1430′ N. 2570′ avbl lndg rnwy 16L. Parallel 2000′ strip btn 16L–34R and 16R–34L clsd except emerg.
Tower 120.3[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7
ATIS:[1] 113.1
Radar Services:
Burbank App Con 120.9
Burbank Dep Con 118.4
(L) VOR 113.1/VNY on fld.
Remarks: [1]Oper 0600–2200 lcl time. [2]360–149° and departure rnwy 16L–34R. [3]150–359° and departure rnwy 16R–34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN **FSS:** FRESNO

MARYSVILLE (T) BVOR 110.8/MYV **FSS:** MARYSVILLE

MATHER (L) VORW 114.6/MHR

MAXWELL (L) BVORTAC 110.0/MXW **FSS:** MARYSVILLE

McCLELLAN RBn MHW 395/MCC

MODESTO
§**CITY-COUNTY** ***IFR*** 2 SE **FSS:** STOCKTON (DL)
96 H50 (2) BL4 S5 F4 DT2
Remarks: Rgt tfc rnwys 11R, 29R.
Tower[1] 120.0 122.7R **Gnd Con** 121.7
VFR ADV: Ctc Stockton APP CON on 125.1
Modesto (T) BVOR 108.4/MOD
Remarks: [1]Oper 1400–0600Z.

MONTAGUE
SISKIYOU COUNTY ***IFR*** 4NE **FSS:** MONTAGUE ON FLD
2651 H75(1) (S90 T120 TT175) BL4 S5 F4 DT 2
Tower 126.2 118.7T 122.5R
Montague RBn BH 382/SIY

CALIFORNIA—*Continued*

§**MONTEREY PENINSULA** ***IFR*** 3SE **FSS:** SALINAS (DL)
220 H50/10–28(2) (S–40, T–70, TT–120) BL5,6,8A,9 S5 F5, JP1 U2 DT2
Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.
Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9
Monterey App Con 120.8
Monterey Dep Con 120.8
ILS[1] 110.1 I–MRY Apch Brg 096° **LOM:**[2] 281/MR
Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130–150°.

§**NAPA COUNTY** 5S **FSS:** OAKLAND (DL)
33 H53/18–36(2) BL4 S5 F4 DT2
Tower[1] 118.8 122.7R **Gnd Con** 121.7
(L) BVORTAC 112.1/APC
Remarks: [1]Opers 0700–2300 lcl time.

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON L) VORW 117.6/SBD
RBn MHW 347/BD

OAKLAND
§ **OAKLAND INTL** ***IFR*** 4S **FSS:** OAKLAND on Fld
6 H100/11–29(4) (S–100, T–160, T–290) BL6, 8A,9,14,15 S5 F5, JP1, JP4 U2 DT2
RVV: Rnwy 27R **RVR:** Rnwy 29
Remarks: Rnwy 33 threshold displaced 2113′ N. Rgt tfc rnwys 27R, 9R, 33 & 11. Overngt tiedown fee.
Oakland Tower 118.3 126.0 122.6R 116.8T
Clrnc Del 121.1
Gnd Con 121.9 121.6
ATIS: 108.7 109.9
Radar Services: (BCN)
Oakland App Con 118.1[1] 116.8T 120.9[2]
Oakland Dep Con 124.7
Tfc Info Call App Con 25 mi out.
PAR[4] Rnwy 29 Ceil 200 Vslby ½ mi Min Alt 206
ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.
ILS 108.7 I–INB Apch Brg 293° **LOM:** 266/IN
109.9 I–OAK Apch Brg 275° BC unusable
VHF/DF[3] Ctc twr.
Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.
Oakland RBn SABH 362●/OAK on fld.
Remarks: [1]271–090° 090–270° [3]Unusable below 6000′ MSL 360–050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

§**ONTARIO INTL** ***IFR*** 2E **FSS:** ONTARIO on Fld
952 H100/7–25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 1000′ on W end. 1000′ overrun E end rnwy 7–25.
Tower 118.5 122.5R **Gnd Con** 121.9
Clrnc Del 120.6
Radar Services: (BCN)
March App Con 124.0 122.5R 111.4T
March Dep Con 125.5 122.5R
ILS 109.7 I–ONT Apch Brg 255° **LOM:** 227/OM
(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VOR 111.2/OAF

OXNARD
§**VENTURA COUNTY** ***IFR*** 1W **FSS:** SANTA BARBARA (DL)
43 H59/7–25(1) (S–36, T–48 TT–75) BL4,11 S5 F4, JP4 U2 DT2 **REIL** rnwy 25.

Remarks: Rnwy 25 threshold displaced 1382′ E. 4568′ avbl lndg rnwy 25. Rnwy 7 threshold 750′ E, 5197′ avbl lndg.

Tower 120.7 122.4R ~~121.5~~ **Gnd Con** 121.9

Oxnard App Con 124.7 122.5R

Oxnard Dep Con 124.7

Ventura (L) BVORTAC 108.2/VTU

Remarks: [1]Opers 0600–2200 lcl time.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF

RBn SABH 338●/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

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§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)

816 H46/9–27(2) BL5, 11 S5 F4 U2 DT2 **REIL:** Rnwy 27

Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.

Tower[1] 121.0 122.6R ~~121.5~~ **Gnd Con** 121.7

VFR ADV Ctc March App Con 124.0 122.5R/Dep Con 125.5 122.5R

(T) VOR 111.4/RAL

Remarks: [1]Opers 0600–2200 lcl time.

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§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld

21 H60/2–20(3) (S–90, T–120, TT–180) BL4,6 8A, 9 S5 F4, TP–1 U2 DT2 **RVV:** Rnwy 2

Remarks: Antenna NNW. 2200′ apch lgtg rnwy 2. Perimeter txwy to rnwy 30 not visible from twr, ctc twr when number one for dptr.

Tower 119.5 122.5R **Gnd Con** 121.9

ATIS: 110.3

Radar Services: (BCN)

App Con 119.1 125.2 121.0 122.5R

Dep Con 124.5

VHF/DF Ctc FSS.

ILS 110.3 I-SAC Apch Brg 016° **LOM:** 356/SA

(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO (H) BVORTAC 117.8/SAN **FSS:** SAN DIEGO

SAN DIEGO

§MONTGOMERY FLD 6N **FSS:** SAN DIEGO (LC 296–3181)

423 H34/10–28(2) (S–30) BL5 S5 F4 U2 DT2

Remarks: Rgt tfc rnwys 5, 10.

Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9

Remarks: [1]Opers 0700–2300 lcl time

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§SAN DIEGO CO—GILLESPIE FLD 10NE **FSS:** SAN DIEGO (LC 296–3181)

385 (H35(9–27(2) (S–60, T–90, TT–140) BL4 S5 F4 U2 DT2

Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl lndg rnwy 27. Rnwy 17–35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.

Gillespie Tower[1] 120.7 122.7R **Gnd Con** 121.7

Remarks: [1]Oper 0700–2300 lcl time

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§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE **FSS:** SAN DIEGO (LU 296–3181)

15 H87/9–27(2) (S–100, T–200, TT–400) BL5,6,8A,11 S–5 F5, JP1 U2 DT2 **REIL:** Rnwy 27

Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl lndg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions. Twr unable to see ramp area W of the Ryan Aero Plant and S of the parallel txwy.

Tower 118.3 122.4R 109.6T **Gnd Con** 121.7

ATIS: 110.9

Radar Services: (BCN)

San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T

San Diego Dep Con 125.7[3] 125.3[4]

Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.

ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715

ILS 110.9 I–SAN Apch Brg 092° **LOM:** 278/SA

Lindbergh (L) BVOR 109.6/LIF on fld.

Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

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§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)

11 H95(10L–28R) (4) (S–200, T–200, TT–400) BL6,8A,9,10,11,12 S–5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVV:** Rnwy 19 **RVR:** Rnwy 28R

Remarks: U.S. Custom lndg rgts arpt. Rnwy 28R threshold displaced 200′ SE. 9496′ avbl lndg rnwy 28R. Rnwy 1R threshold displaced 1100′ SW. 8400′ avbl lndg rnwy IR. REIL N end rnwy 19L and E end rnwy 28L inop.

Tower 120.5 122.7R **Gnd Con** 121.8

‡Clrnc Del 121.4

ATIS: 111.2

Radar Services:

App Con 124.9[1] 119.3[2] 111.2T 109.5T

Dep Con 124.4 128.5

Tfc Info Ctc OAK app con 0600–1400 for trml radar service.

PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.

ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412.

Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512

ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF

VHF/DF Ctc twr.

(L) VOR 111.2/SFO at fld.

RBn MHW 275/SIA 191° 0.6 to rnwy 19L.

Remarks: [1]315–134°, [2]135–314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0 unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

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§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)

56 H78/12R–30L (2) (S–100, T–150, TT–230) BL6,8A,9 S5 F5, JPI U2 DT2 **RVR:** Rnwy 30L

Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl lndg rnwy 30L. Twr unable to see NE tfc patn. Displaced threshold clsd to acft over 12,500 lbs.

Tower 120.7[2] 122.4R 124.0[1] **Gnd Con** 121.7

ATIS[3] 108.2

Radar Services: (BCN)

Moffett App Con 120.1 123.7 122.4R 110.9T 108.2T

Moffett Dep Con 121.3 122.4R 108.2T

Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.

ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656.

Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.

ILS 110.9 I-SJC Apch Brg 302°

(L) VOR 108.2/SJC on fld.

Remarks: [1]Rnwys 30L–12R [2]Rnwys 30R–12L [3]Opers 0800–2000 lcl time

CALIFORNIA—*Continued*

SAN LUIS OBISPO (L) BVORTAC 112.4/SBP FSS: PASO ROBLES

SANTA ANA
§**ORANGE COUNTY** ***IFR*** 4 S FSS: LOS ANGELES (DL)
53 H57/1L-19R(2) (S-68, T-95, TT-170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.5~~ **Gnd Con** 121.7
ATIS: 108.8
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

§**SANTA BARBARA MUNI** ***IFR*** 7 W FSS: SANTA BARBARA on fld
14 H50/7-25 (2) (S-40, T-71, TT-117) BL5,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 7-25 overrun unlgtd. Rnwy 25 threshold displaced 296′ E end rnwy 25, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I-SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld

SANTA CATALINA (L) BVOR 111.6/SXC FSS: LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX

§**SANTA MONICA MUNI** ***IFR*** 3 E FSS: LOS ANGELES (DL)
175 H50/3-21 (1) S-80, T-120, TT-220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[3] 120.1 122.6R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[1] 124.5[2] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°-225°, [2]225°-044° [3]Oper 0700–2300 lcl time. **VOT:** 110.2. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA
§**SONOMA COUNTY** ***IFR*** 6 NW FSS: UKIAH (DL)
125 H50/14-32(2) (S-80, T-130, TT-220) BL4 S5 F4 U2 DT2
Remarks: Attended days.
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU FSS: OAKLAND

§**STOCKTON METROPOLITAN** ***IFR*** 3S FSS: STOCKTON on fld
27 H86/11L-29R(4) (S-100, T-200, TT-400) BL6,8A,9,12 S5 F4 TP1 U2 DT2 **RVV:** Rnwy 29R
Remarks: 1500′ apch lgt sys rnwy 29R. Minimum VFR alt 1500′ when within 1 mi radius Sharpe AAF aprxly 3.5 NM SSW of fld.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I-SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY
§**LAKE TAHOE** 2SE FSS: SACRAMENTO (DL)
6263 H85/18-36(1) (S70 T120 TT230) BL4, 5 S5 F4 JP1 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 36. Rnwy 36 threshold displaced 2040′. UNICOM opers dalgt hrs only.
Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR[2] 113.2/LTA
Remarks: [1]Opers 0700-2300 lcl time [2]Dec 16, class to be BVORTAC.

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

§**TORRANCE MUNI** ***IFR*** 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L-29R(2) (S-30, T-50, TT-80) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L-29R displaced thresholds 550′. 4450′ avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 120.9 124.0 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 118.4
Remarks: [1]Oper 0600–2200 lcl time. [2]045°-224°. [4]225–044°.

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

BUCKLEY (T) VOR 112.7/BKF

COLORADO SPRINGS
§**PETERSON FIELD** ***IFR*** 6 SE **FSS:** DENVER (LC 634-3127)
6172 H110/17-35(3) (S-100, T-200, TT-400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: Jet arresting barrier and arresting gear rnwys 12, 17-35. 1000′ overrun each end rnwy 17-35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I-COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] Ctc twr.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340–055° and 15 nmi 245-270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER
§**STAPLETON INTL** ***IFR*** 4 E **FSS: DENVER** on Fld
5331 H115/17-35(3) (S-120, T-200, TT-350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: U.S. Customs lndg rgts arpt. (3 hr advance notice rqd.). Twr unable to determine whether acft on correct final apch to rnwys 8L-8R and 26L-26R. Rnwy 17-35 clsd every Mon and Thurs 1430-1630Z.
Denver Tower 118.3 126.9 119.5 122.4R **Gnd Con** 121.9
‡**Clrnc Del:** 121.8
ATIS: 110.3

COLORADO—*Continued*

Radar Services: (BCN)
Denver App Con 119.3[1] 118.3[3] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 119.5[3] 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I–DEN Apch Brg 257° **LOM:** 362/DE
108.1 I–SPO Apch Brg 350°
VHF/DF Ctc twr
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270–089° [2]090–269° [3]Mostly used VFR dalgt hrs.
VOT: 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC FSS: FARMINGTON

DURANGO (L) BVOR 108.2/DRO FSS: FARMINGTON

ENGLEWOOD RBn H–SAB 379●/EWD FSS: DENVER

GILL (L) BVOR 108.8/GIL FSS: DENVER

GRAND JUNCTION
§WALKER FIELD *IFR* 3NE FSS: GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12 S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I–GJT Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[2] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable below 5132'. [2]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC FSS: GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO FSS: LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC FSS: DENVER

KREMMLING (H) BVORTAC 113.8/RLG FSS: EAGLE

LAMAR (H) BVORTAC 116.9/LAA FSS: LA JUNTA

MEEKER (H) BVORTAC 115.2/EKR FSS: EAGLE

PETERSON (L) VORW 109.0/PEF

§PUEBLO MEML *IFR* 5E FSS: PUEBLO on Fld
4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F4 TP1 **RVV:** Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I–PUB Apch Brg 075° **LOM:** 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC FSS: AKRON

TOBE (L) BVORTAC 115.8/TBE FSS: TRINIDAD

TRINIDAD RBn SABH 329●/TAD FSS: TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI *IFR* 3SE
FSS: WINDSOR LOCKS (LC ED 5–6097)
9 H47 (11–29(3) (S–36.5, T–55.5, TT–) BL5,6 S5 F5 JP1, JP4 U2 DT2
Remarks: U.S. Customs lndg rgts.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON FSS: PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI–3–3245)
Remarks: [1]Oper by State.

HARTFORD (L) BVORTAC 114.9/HFD FSS: WINDSOR LOCKS
RBn SBMHZ 329/HFD

CONNECTICUT—*Continued*

MADISON (L) BVORTAC 111.4/MAD FSS: WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN FSS: WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW FSS: PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT FSS: WORCESTER

WINDSOR LOCKS
§BRADLEY FIELD *IFR* 3W FSS: WINDSOR LOCKS on Fld.
173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10,14,15 S5 F5, JP4,5 U2 DT2 **VASI:** Rnwy 33
Remarks: U.S. Customs lndg rgts arpt. Rnwy 6–24 A–Gear both ends.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I–BDL Apch Brg 058° **LOM:** 388/BD
Remarks: Glide slope rnwy 6 unusable below 373'.

DELAWARE

DOVER (T) VOR 108.4/DOV
Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO FSS: MILLVILLE

NEW CASTLE (L) BVORTAC 114.0/EWT FSS: PHILADELPHIA

WATERLOO (L) BVORTAC 112.6/ATR FSS: SALISBURY

WILMINGTON
§GREATER WILMINGTON *IFR* 4S **FSS:** MILLVILLE (LC 652–5419)
79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5 F4, JP1 U2 DT2 **RVR:** Rnwy 1.
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125.0 110.3T
ILS 110.3 1–ILG Apch Brg 014° BC unusable **LOM:** 248/IL
VHF/DF Ctc twr.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON
§DULLES INTL *IFR* 21W FSS: WASHINGTON (DL)
313 H115/(IL–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15 S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R
Remarks: U.S. Customs lndg rgts aprt. RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.4
Radar Services: (BCN)
App Con 119.2 126.1
Dep Con 125.5
Tfc Info: Expanded radar service abl arr: 126.1 Dep: 125.5
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I–DLX Apch Brg 186° BC unusable
109.3 I–DIA Apch Brfi 006° BC unusable **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

§WASHINGTON NATIONAL *IFR* 3S FSS: WASHINGTON on Fld
15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15 S5 F5,JPI U2 DT2 **VASI:** Rnwys 15, 18 **RVV:** Rnwys 18, 15 **RVR:** Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18
Remarks: U.S. Customs lndg rgts arpt. Very limited parking. Caution turbulance apch ends rnwys 21, 33 and 36.
Tower 119.1 122.5R **Gnd Con** 121.7

DISTRICT OF COLUMBIA—*Continued*

‡**Clrnc Del** 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[2] 127.0[1] 122.5R 128.8 109.9T
Dep Con 118.1[1] 126.55[2]
Tfc Info: Expanded radar service avbl: Arr 119.3 Dep 118.3
PAR[3] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I–DCA Apch Brg 003° BC unusable **LOM:** 332/DC
VHF/DF Ctc twr.
Washington (L) VORTAC 111.0/DCA at fld.
Washington RBn H–SAB 332●/DC 001° 4.6 NM to fld.
Remarks: [1]West. [2]East. Circling PAR avbl on 15 min notice durg VFR conditions. [3]Radar monitoring instrument apchs only at pilot's request. LOM is H–SAB. **VOT:** 108.2.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY **FSS:** MIAMI

CECIL (L) VORW 108.2/NCZ

CRESTVIEW (H) BVORTAC 115.9/CEW **FSS:** CRESTVIEW

CROSS CITY (L) BVORTAC 112.0/CTY **FSS:** GAINESVILLE

§DAYTONA BEACH MUNI *IFR* 3SW **FSS:** ORLANDO (LC255-4767)
34 H57/6–24(3) (S–60, T–80, TT–) BL4,6,8A,9
S5 F5, JP1 U2
Remarks: Rgt tfc rnwy 6.
Tower 120.7 126.2 122.5R **Gnd Con** 121.9
App Con 123.9 122.5R 112.6T 109.7T
ILS[1] 109.7 I-DAB Apch Brg 065° **LOM:** 263/DA
(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.
Remarks: [1]Glide slope unusable below 150′ MSL.

DESTIN RBn HW 201/DES

EGLIN (L) VOR 110.8/VPS

EGMONT KEY RBn HW 310/H

FT. LAUDERDALE-EXECUTIVE IFR 5NW **FSS:** MIAMI (LC 524–0233)
14 H40(3) (Max 20) BL4 S5 F5 JP4
Remarks: Attended 0700–2000.
Executive Tower:[1] 125.2 122.6R
Remarks: [1]Opers 1100–0300Z daily.

§FT. LAUDERDALE-HOLLYWOOD INTL *IFR* 3SW AOE
FSS: MIAMI (LC 524-0233)
10 H74/9–27(3) (S–115, T–200, TT–400) BL4 S5 F5, JP1 U2
Remarks: Rnwy 9 threshold displaced 613′ Rnwy 27 threshold displaced 602′.
Fort Lauderdale Tower 119.3 122.5R 111.4T
Gnd Con 121.7
Radar Services: (BCN)
Miami App Con 123.9 119.7
Miami Dep Con 128.0 119.7
Ft Lauderdale (L) BVOR 111.4/FLL on fld.
Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY **FSS:** FORT MYERS
RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD **FSS:** ST. PETERSBURG

GAINESVILLE (H) BVORTAC 116.2/GNV **FSS:** GAINESVILLE

GREENVILLE (L) BVOR 109.0/GFF **FSS:** TALLAHASSEE

HOLLYWOOD
§NORTH PERRY 5W **FSS:** MIAMI (LC 524 0233)
9 H31/4–22(4) (Max–16) BL5 S5 F4 U2
Remarks: Two way rdo required.
Tower[1] 121.3 122.4R
Remarks: [1]Opers 1200–0200Z.

HOMESTEAD (L) VOR 108.2/HST
RBn MHW 221/HST

FLORIDA—*Continued*

JACKSONVILLE
§IMESON *IFR* 5N **FSS:** JACKSONVILLE on Fld
52 H79/5–23(3) (S–62, T–110, TT–200) BL4,6,12 S5 F5, JP4 U2
RVV: Rnwy 5
Remarks: U.S. Customs lndg rgts arpt. Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. Rnwy 18–36 open for dalgt VFR operns. 1500′ apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410′ E, rnwy 12 displaced 335′ W. Jet arresting gear rnwy 5–23.
Jacksonville Tower: 118.3 126.2 122.5R 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2
Tfc Info: Ctc App Con on 119.0 25 mi out.
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452.
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I–JAX Apch Brg 045° BC unusable **LOM:** 221/JA
Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.
Jacksonville RBn H–SAB 344●/JAX 270° 1.4NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Glide slope unusable below 150′. **VOT:** 111.0

§KEY WEST INTL *IFR* 2 E AOE **FSS:** KEY WEST on Fld
4 H48/9–27(1) (S–30, T–40, TT–) BL4 S3 F4
Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 10:00 PM to Key West FSS.
Tower[1] 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Navy Key West App Con 118.7 122.5R
VFR ADV Ctc Key West rdo 0300–1100Z
(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.
RBn SBH 332/EYW 066° 1.2NM to fld.
Remarks: [1]Oper 0600–2200 lcl time.

LA BELLE (L) BVOR 110.4/LBV **FSS:** FORT MYERS

§LAKE CITY MUNI 3 E **FSS:** GAINESVILLE
202 H68/10–28(4) (S–75, T–140, TT–250) •L S5 F4 U1
Tower[1] 126.2
Remarks: [1]Oper 1300–2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL **FSS:** ST. PETERSBURG

MARATHON RBn HW 260/MTH **FSS:** KEY WEST

MARIANNA (L) BVOR 114.0/MAI **FSS:** DOTHAN

MELBOURNE
§JOHN F KENNEDY MEML *IFR* 2 NW **FSS:** MELBOURNE on Fld
32 H112/(9–27(3) (S–85, T–145, TT–270) BL4 S5 F4, JP5 U2
Remarks: 9603′ rnwy 9–27 available ngts, displaced threshold rnwy 27 1589′W
Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9
Radar Services:
Patrick App Con 118.4
Patrick Dep Con 118.4
Melbourne (L) BVOR 110.0/MLB on fld.
Melbourne RBn HW 257/MLB 087° 2.1NM to fld.
Remarks: [1]Oper 0600–2400 daily, VFR use only.

MIAMI
§MIAMI INTL *IFR* 8 NW AOE **FSS:** MIAMI on Fld
9 H105/9L–27R (4) (S–200, T–200 TT–400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L
Remarks: Fee. Clsd non engine acft.
Tower 118.3 120.5 125.0 126.2 122.4R **Gnd Con** 121.8
‡**Clrnc Del** 127.5
ATIS: 115.9

FLORIDA—*Continued*

Radar Services: (BCN)
App Con 118.1[1] 128.0 123.9[2] 122.4R
Dep Con 128.0[2] 119.7
Tfc Info Ctc Twr 20 mi out or remain above 2500′.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509.
Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.
ILS 110.3 I-MFA Apch Brg 087° **LOM:**[4] 365/MF
109.5 I-MIA[3] Apch Brg 267° **LOM:** 248/MI
VHF/DF Ctc twr.
(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12
RBn H-SAB 365●/MF 087° 4.5NM to rnwy 9L.
Remarks: [1]090°-269° [2]270°-089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]Glide slope rnwy 27 unusable below 175′ MSL. [4]LOM is H-SAB. **VOT:** 112.0

§OPA LOCKA *IFR* 10 NW **FSS:** MIAMI
9 H80/9L-27R(4) (S-96, T-155, TT-290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L-27R. 1045′ TV twr 5 NM NNE. JP-1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.
Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Miami App Con 120.5 118.1
Miami Dep Con 128.0 119.7
Remarks: [1]Oper 1100-0300Z.

§TAMIAMI 8 W **FSS:** MIAMI
10 H38/14 32 (3) BL4 S5 F4
Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.
Tower[3] 121.1 122.6R **Gnd Con** 121.7
Radar Services:
Miami Dep Con 128.0[1] 119.7[2]
Remarks: [1]270°-089° [2]090-269°. [3]Opers 1200-0400Z.

OCALA (L) BVORTAC 112.8/OCF **FSS:** GAINESVILLE

ORLANDO
§HERNDON *IFR* 3 E **FSS:** ORLANDO on Fld
113 H60/7-25(3) (S-90, T-160, TT-300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7
Remarks: NW-SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.
Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7
Clrnc Del 121.7
Radar Services:
Orlando App Con 119.4 124.8 122.5R 109.9T
Orlando Dep Con 121.1
Tfc Info Ctc App Con on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613.
Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.
ILS 109.9 I-ORL Apch Brg 067° **LOM:** 221/OR
(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK **FSS:** WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN **FSS:** TALLAHASSEE

§PENSACOLA MUNI *IFR* 3 NE **FSS:** PENSACOLA on Fld
118 H50/16-34(2) (S-100, T-180, TT-320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16
Remarks: Overnight tie-down fee.
Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 123.9[1] 134.1 122.7R 119.0[2]
Dep Con 119.0[2] 134.1 123.9[1]
Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN
RBn H-SAB 326●/PNS 343° 1.8NM to fld.
Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR **FSS:** MIAMI

FLORIDA—*Continued*

ST AUGUSTINE
§FAIRCHILD-ST AUGUSTINE 3N **FSS:** JACKSONVILLE
10 H65/13-31(3) (S-30) BL4,6 S5 F5
Remarks: Rnwy 2-20 and 6-24 clsd to acft over 12,500 lbs when twr not in opern.
Tower[1] 126.2 123.1 122.5R
Remarks: [1]Oper 1230-2115Z Mon-Fri.

ST. PETERSBURG
WHITTED 2E **FSS:** ST. PETERSBURG
7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2
Remarks: Rgt tfc rnwys 6, 36. Attended 0600-2200.
Tower 120.4 122.4R **Gnd Con** 121.8
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T
Tampa Dep Con 126.5
Tfc Info: See Tampa Intl
Remarks: Opers 0600-2200.

§ST. PETERSBURG-CLEARWATER INTL *IFR* 8N
FSS: ST PETERSBURG on Fld
10 H80/17-35 (3) (S-95, T-155, TT-200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17
Remarks: U.S. Customs lndg rgts arpt. Rnwy 4-22 clsd to ngt operns UFN.
Tower[2] 118.3 122.7R **Gnd Con** 121.9
Radar Services (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T **Tampa Dep Con** 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI
St Petersburg (H) BVORTAC 116.4/PIE at fld.
Remarks: [1]Glide slope unusable below 150′ MSL. [2]Opers 0600-2200 lcl time.

SANFORD NAS RBn SH 408/NRJ **FSS:** ORLANDO

§SARASOTA-BRADENTON *IFR* 3N
FSS: ST. PETERSBURG (LC 955-6160)
24 H50/13-31(3) (S-62, T-110, TT-190) BL4,6 S5 F5, JP1 U2
Remarks: Rnwy 9-27 and all perimeter txwys clsd to acft in excess 12,500 lbs.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 108.4T
Tampa Dep Con 126.5
Sarasota (L) BVOR 108.4/SRQ at fld.
Remarks: [1]Oper 0600-2400 lcl time.

SAUFLEY (L) BVOR 108.8/NUN
RBn MH 293/NUN

§TALLAHASSEE MUNI *IFR* 4 SW **FSS:** TALLAHASSEE on Fld
81 H61/18-36(2) (S-80, T-150, TT-270) BL4,6,8A,9 S5 F4, JP4 U2
RVV: Rnwy 36
Tower 118.7 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
App Con 118.1[2] 122.5R 117.5T 110.3T
Dep Con 118.1
ILS[1] 110.3 I-TLH Apch Brg 358° **LOM:** 379/TL
(H) BVORTAC 117.5/TLH
RBn H-SAB 379●/TL 358° 4.1NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable below 160′ MSL. LOM is H-SAB **VOT:** 111.0. [2]To be changed to 120.8 Nov 30.

§TAMPA INTL *IFR* 3 W AOE **FSS:** ST. PETERSBURG (LC223-3431
27 H87(18R-36L (S-60, T-175, TT-270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L
Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.

FLORIDA—*Continued*

Tower 119.9 126.2 122.5R 110.3T **Gnd Con** 121.7
Radar Services (BCN)
App Con 119.5 125.3 122.5R 118.5 116.0T 116.4T 108.4T
Dep Con: 126.5
Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.
ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP
RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36
VHF/DF: ctc FSS
Remarks: VOT: 111.0

TAYLOR (L) BVORTAC 113.8/TAY **FSS:** VALDOSTA

TYNDALL (L) VOR 117.7/PAM
RBn HW 227/AAN

VENICE RBn MHW 209/XVN **FSS:** ST. PETERSBURG
Remarks: VFR use only. Owned and operd by city.

VERO BEACH (H) BVORTAC 117.3/VRB **FSS:** VERO BEACH

WEST PALM BEACH
§PALM BEACH INTL *IFR* 3 W AOE **FSS:** MIAMI (LC 832–5697)
19 H80/9–27(2) (S–85, T–400, TT–) BL4.6,8A,9 S5 F5 JP4
RVV: Rnwy 9
Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.
Tower 119.1 122.7R **Gnd Con** 121.9
App Con 118.0 122.7R 115.5T 109.3T
ILS[1] 109.3 I–PBI Apch Brg 093° **LOM:** 356/PB
Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.
Palm Beach RBn HW 356/PB 093° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 150'. LOM is HW. **VOT:** 109.0.

GEORGIA

ALBANY (L) BVOR 112.9/ABY **FSS:** ALBANY

ALMA (H) BVORTAC 115.1/AMG **FSS:** ALMA

ATHENS (L) BVORTAC 109.6/AHN **FSS:** ANDERSON

ATLANTA
§ATLANTA MUNI *IFR* 7SSW **FSS:** ATLANTA
1024 H100(9L–27R(4) (S–100, T–170, TT–340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.
Remarks: Aprxly 2100' of W end rnwy 9R–27L not visible from twr. TV towers 1042' (2049' MSL) 8.5 NM NE. 1076' (2049' MSL) 7.5 NM NE. 1100' (2049' MSL) 10 nmi NE. Commercial Fee only. [1]Avail for apch and roll out.
Tower 119.1 119.5 122.7R **Gnd Con** 121.9
‡Clnrc Del 121.6
ATIS: 111.8 111.0
Radar Services: (BCN)
App Con 127.7 (N of V18) 118.1 (S of V18) 109.9T 109.3T 110.5T
Dep Con 125.7 125.0
Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.
PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.
ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424.
Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.
ILS 109.9 I–ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I–AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I–ALR Apch Brg 089° **LOM:** 254/AL
(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.
RBn H–SAB 266●/ATL 270° 4.7NM to rnwy 27R.
Remarks: [2]Radar monitoring of instrument apchs only at pilots' request. **VOT:** 111.0.

§DEKALB-PEACHTREE *IFR* 8 NE **FSS:** ATLANTA
1002 H40/16–34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2

GEORGIA—*Continued*

Remarks: TV towers 1042 (2049' MSL) 7.5NM SSW; 1076' (2049' MSL) 8NM SSW; 1100' (2049' MSL) 5NM SSW.
Peachtree Tower[1] 120.9 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
Remarks: [1]Oper 1200–0400Z.

§FULTON COUNTY *IFR* 6W **FSS:** ATLANTA on Fld
839 H52/8–26(2) (S50, T–77, TT–) BL4, 11 S5 F5
REIL: Rnwy 8.
Remarks: Towers 1042' (2049' MSL) 9 NM E. 1076' (2049' MSL) 8NM E. 110' (2049' MSL) 9.5 NM E.
Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
(L) BVOR 108.2/FTY on fld.
RBn MH 245/FTY on fld
VHF/DF Ctc FSS.
Remarks: [1]Oper 1200–0400Z.

AUGUSTA
§BUSH FIELD *IFR* 6S **FSS:** SAVANNAH (LC 798–5164)
145 H80–17–35(2) (S–150, T–200, TT–360) BL4,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 35
Remarks: 1506' (1882' MSL) twr 7NM ENE and 1292' (1677' MSL) twr 7NM NE.
Augusta App Con 125.4 122.5R 110.5T
Gnd Con 121.9
Augusta App Con 125.4 122.5R 113.9T 110.5T
ILS[1] 110.5 I–AGS Apch Brg 349° BC unusable **LOM:** 233/AG
Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.
Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.
VHF/DF Ctc twr.
Remarks: [1]Glide slope unusable below 245' MSL.

BLAKELY RBn MHW 365/BLG

BRUNSWICK (L) BVOR 109.8/SSI **FSS:** BRUNSWICK

COLUMBUS
§MUSCOGEE COUNTY *IFR* 4NE **FSS:** ATLANTA
397 H50/5–23(2) (S–60, T–80) BL4,6 S5 F5, JP5 U2
Remarks: Rnwy 12–30 closed to ngt lndgs.
Tower 120.1 122.5R **Gnd Con** 121.9
Columbus App Con 125.3 122.5R 335T
Columbus Dep Con 125.3
ILS[1] 110.3 I–CSG Apch Brg 053° BC unusable **LOM:** 355/CS
Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.
Remarks: [1]Glide slope unusable below 693'.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN **FSS:** MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA

HARRIS (L) BVOR 110.4/HRS **FSS:** KNOXVILLE, TENN.

LA GRANGE (L) BVOR 109.4/LGC **FSS:** ANNISTON

LAWSON (L) VOR 111.4/LSF
RBn SH 335/AWS
Remarks: VOR inoperative UFN.

LIBERTY RBn MHW 263/HIN

LOST MOUNTAIN RBn HW 314/LSM

§MACON MUNI *IFR* 9S **FSS:** MACON on Fld
354 H50/5–23(2) (S–30, T–50, TT–85) BL4,6,8A,9 S3 F5, JP1 U2 **RVV:** Rnwy 5
Remarks: Rnwy lgts oper dusk-2300; after on req thru FSS

GEORGIA—*Continued*

Tower[2] 118.3 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T
Dep Con 124.8
ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.
ILS[1] 109.5 I–MCN Apch Brg 047° BC unusable **LOM:** 290/MC
(H) BVORTAC 114.2/MCN at fld.
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 450′ MSL. [2]Opers 0700–2300 lcl time.

MOULTRIE (L) BVOR 108.8/MGR FSS: VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR FSS: ATLANTA

REX (L) BVOR-DME 111.8/REG FSS: ATLANTA

ROME (L) BVOR 115.4/RMG FSS: ATLANTA
RBn MHW 388/RMG

SAVANNAH
§TRAVIS FIELD *IFR* 7NW FSS: SAVANNAH on Fld
50 H90/9–27(3) (S40–T60–TT–110) BL4,6,8A,9 S5 F4, JP5 **RVR:** Rnwy 9
Remarks: Rnwy 27 threshold displaced 400′. Rnwy 5–23 clsd all acft in excess 12,500 lbs GWT. Jet barrier and arresting gear rnwy 9–27
Savannah Tower 119.1 126.2 122.5R 110.1T
Gnd Con 121.9
Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7
ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: VOT: 111.0

TOCCOA (L) BVOR 109.8/TOC FSS: ANDERSON

VALDOSTA (L) BVOR 110.4/VLD FSS: VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA FSS: MACON

WAYCROSS (L) BVORTAC 110.2/AYS FSS: ALMA

IDAHO

§BOISE AIR TERMINAL *IFR* 3S FSS: BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9 S5 F5, JP1,4 U2 **RVV:** Rnwy 28R **RVR:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R. Jet barriers and arresting gear Rnwy 10R–28L plus jet barriers with donut supported cable aprxly 1000′ in from threshold lgts on rnwy 10R–28L.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI FSS: BURLEY
RBn SBH 272/BYI

COEUR D' ALENE RBn HW 347/COE FSS: SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS FSS: IDAHO FALLS

§IDAHO FALLS
FANNING FIELD *IFR* 2NW FSS: IDAHO FALLS on Fld
4739 H74/2-20(2) (S–30, T–90, TT–150) BL5,6,11 S5 F4 JP5
REIL: Rnwy 20.
Remarks: Rnwy 20 threshold displaced 830′ NE. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 545′ N. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350○/IDA 199° 2.2NM to rnwy 20.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

IDAHO—*Continued*

LEWISTON (L) BVOR 108.2/LWS FSS: WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD FSS: MALAD CITY

McCALL (H) BVORTAC 116.2/MYL FSS: BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP FSS: MULLAN PASS

§POCATELLO MUNI *IFR* 7NW FSS: POCATELLO on Fld
4448 H82/3–21(3) (S70, T95, T1145) BL5,6,9,12 S5 F4 JP1 U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF FSS: BURLEY

ILLINOIS

§ALTON CIVIC MEML *IFR* 5E FSS: ST. LOUIS
541 H51(2) BL5 S5 F4 JP1 U2 (LC HO 5–4112)
Remarks: P-line NW. Hwy N
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
St. Louis Dep Con 119.9
VFR ADV: Ctc St. Louis, Lambert-St. Louis
RBn MHW 263/ALN
Remarks: [1]Oper 0700–2300 [2]Southeast Arrivals [3]Northwest arrivals

BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB FSS: VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI **FSS:** PEORIA

BRADFORD (H) BVORTAC 114.7/BDF **FSS:** PEORIA

CAHOKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

CAPITAL (H) BVORTAC 112.7/CAP FSS: VANDALIA

CARBONDALE RBn BMH 248/MDH **FSS:** CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL FSS: VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4SSW
FSS: CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4 U2 D12
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY *IFR* 3NW FSS: JOLIET (DL)
758 H40/10-28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 D12
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy **5–23** clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R ~~121.5~~ **Gnd Con** 121.7
Remarks: [1]Oper 0600-2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E FSS: JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No **student flying** permitted. Fld clsd under following 90° to rnwy **wind** conditions: (1) 15 knots or more to acft 1,500 lbs or less. **(2) 20** knots or more to single eng acft except tricycle or **caster gear** acft. (3) 25 knots or more to all acft. **Fld clsd daily to all** opers btn hrs 2400 and 0600 lcl time **due no safety or svcs**

ILLINOIS—*Continued*

facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs.
Meigs Tower[1] 121.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Chicago Dep Con: 119.5
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY ***IFR*** 9SW AOE **FSS:** JOLIET (DL)
619 H65/13R-31L(6) (S–130, T–200, TT–400) BL2,4,6,8A,9,11 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 119.2 126.2 122.7R 123.7 109.9T
Gnd Con 121.7
Radar Services:
Chicago App Con 119.5
Chicago Dep Con[1] 119.5
Tfc Info Ctc Chicago App Con on 119.5.
VFR ADV: Ctc twr on 119.2
PAR[2] Rnwy 13R Ceiling 300 Vsby ¾ mi Min alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I–MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I–MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H–SAB 350●/MDW 152° 2.2 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immediate area of Midway on 119.2 [2]PAR unusable from MM to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. LOM is Kedzie MHW. **VOT:** 111.0.

§CHICAGO-O'HARE INTL ***IFR*** 14NW **FSS:** JOLIET (DL)
667 H116/14R-32L(5) (S–120, T–200, TT–375) BL5,6,8A,9,10,11 S5 F5 JP1, JP4 U2 **RVR:** 14R, 14L, 27, 32L
RVV: Rnwys 4, 9, 27, 32R **VASI:** Rnwy 22.
Remarks: U.S. Customs lndg rgts arpt. Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts First 1000′ rnwy 14L clsd.
O'Hare Tower 118.1 126.2 122.6R 120.7 113.9T 110.1T 109.7T
‡Clrnc Del 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4[1] 125.0[2]
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
VFR ADV: 127.4
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby ½ mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby ¾ mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I–ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I–OHA Apch Brg 138° **LOM:** 368/OH
110.5 I–IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I–RVG Apch Brg 318° **LOM:** 257/RV
108.7 I–IDN Apch Brg 318° **LOM;** 385/ID
111.3 I–HNA Apch Brg 040°
(L) VORTAC 113.9/ORD on fld.
VHF/DF Ctc twr.
Remarks: [1]180°–359° [2]360°–179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE

DECATUR MUNI ***IFR*** 4E **FSS:** VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 TPI U–2 **REIL:** Rnwys 18, 36
Remarks: 1063 (1179 MSL) twr 7.5 nmi NNE.
Tower: 118.9 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700–2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

GLENVIEW RBn MH 269/NBU

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY ***IFR*** 3S **FSS:** BURLINGTON (DL)
590 H55/9-27(3) (S–56, T–82, TT–140) BL4,6,8A,9 S5 F4, JP4 U2 DT2 **RVR:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 121.7[1] 124T
ILS 110.3 I–MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.
Remarks: [1]For IFR acft operg Davenport Mun Arpt Iowa

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE
Remarks: Unmonitored 0100–1300Z, not to be used for IFR apchs when unmonitored.

PEORIA
§GREATER PEORIA ***IFR*** 4W **FSS:** JOLIET
659 H70/12-30(4) (S–65, T–90, TT–170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 I–PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD ***IFR*** 9E **FSS:** QUINCY on Fld
769 H54/3-21(3) (S65, T–90, TT–170) BL4,6 S5 F4 JP1 DT2
ILS 110.1 I–UIN Apch Brg 035° **LOM:** 293/UI

ILLINOIS—*Continued*

Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.
Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS FSS: CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD *IFR* 4S FSS: ROCKFORD on Fld
735 H60/18–36(3) (S–150, T–200, TT–400) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 36 **RVR:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I–RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV

SAMSVILLE (L) BVOR 116.6/SAM FSS: EVANSVILLE

SPRINGFIELD
§CAPITAL *IFR* 3NW FSS: VANDALIA (DL)
593 H70/4–22(3) (S–85, T–120, TT–210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVR:** Rnwy 4 **REIL:** Rnwy 22.
Remarks: Jet barrier rnwy 4–22.
Tower 121.3 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 118.6 aprx 25NM out
Springfield App Con 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I–SPI Apch Brg 038° **LOM:** 379/SP
Springfield RBn MHW 379/SP 038° 5.1 NM to rnwy 4
Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY FSS: ST. LOUIS

VANDALIA (L) BVORTAC 114.3/VLA FSS: VANDAILA

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID FSS: INDIANAPOLIS

BAKALAR RBn HW 410/BAK

BLOOMINGTON (L) BVOR 110.2/BMG FSS: INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL
RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU FSS: INDIANAPOLIS

CONNERSVILLE RBn MHW 275/CEV
Remarks: Owned and operd by city.

EVANSVILLE
§DRESS MEMORIAL *IFR* 3N FSS: TERRE HAUTE (DL)
389 H60/3–21(3) (S–70, T–90, TT–) BL4.6 S5 F5 TPI U2 DT2
Remarks: Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below.
Evansville Tower 118.7 122.5R **Gnd Con** 121.9
Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T
VFR ADV: Ctc App Con on 119.4
ILS 109.9 I–EVV Apch Brg 215° BC unusable **LOM:** 219/EV
Evansville (H) VORTAC 113.3/EVV 12.4NM to fld.

FT. WAYNE
§BAER FIELD *IFR* 6SSW FSS: FORT WAYNE on Fld.
801 H80/4–22(3) (S–90, T–120, TT–) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVR:** Rnwy 31 **REIL:** Rnwy 22
Remarks: P-line SE. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9. Jet barrier rnwy 4–22.
Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6

INDIANA—*Continued*

Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.
ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW
Fort Wayne (H) BVORTAC 117.8/FWA on fld.
Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31
Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH FSS: SOUTH BEND

HUNTINGBURG RBn MHW 239/HNB

§INDIANAPOLIS MUNI (Weir Cook) *IFR* 7SW
FSS: INDIANAPOLIS on Fld
797 H100/4–22(2) (S–100, T–150, TT–270) BL6,8A,9,10,11 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 **RVR:** Rnwy 4, 31
Remarks: U.S. Customs lndg rgts arpt. Fee multi-eng commercial acft.
Tower 120.9 126.2 122.5R 116.3T
‡Clrnc Del 125.7 **Gnd Con** 121.9
ATIS 110.5
Radar Services: (BCN)
App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.5 or 118.1
PAR[3] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN
110.5 I–COA Apch Brg 313° **LOM:** 232/CO
(H) BVORTAC 116.3/IND 142° 6.1NM to fld.
RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4
VHF/DF Ctc FSS.
Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI FSS: SOUTH BEND

KOKOMO (L) BVOR 109.8/OKK FSS: INDIANAPOLIS
RBn MHW 227/OKK

LAFAYETTE
§PURDUE UNIVERSITY *IFR* 1SW **FSS:** LAFAYETTE on fld
605 H54/10–28(2) (S35 T53 TT80) BL5 S3 F5 JP1
Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.
ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA
Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU FSS: TERRE HAUTE

MARION (T) BVOR 108.6/MZZ FSS: INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI FSS: FORT WAYNE

MUNCIE
§DELAWARE COUNTY (Johnson Fld) *IFR* 3N
FSS: INDIANAPOLIS (DL)
937 H51/14–32(2) (S–70, T–90, TT–150) BL4 S5 F4 JP1 U2
Remarks: P-line in NW apch 3480′ off end rnwy 14.
Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9
Muncie (L) BVOR 113.7/MIE
Remarks: [1]Oper 1200–0400Z.

NABB (L) BVOR 113.5/ABB FSS: LOUISVILLE

RICHMOND (L) BVOR 110.6/RID FSS: DAYTON
RBn MHW 385/RID

INDIANA—Continued

SCOTLAND (L) BVORTAC 111.2/SCJ FSS: TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB FSS: INDIANAPOLIS

SOUTH BEND
§**ST. JOSEPH COUNTY** *IFR* 3NW FSS: SOUTH BEND on Fld
785 H60/9-27(4) (S-110, T-145, TT-) BL4,6,8A,9 S4
F5, JP1 U2 **RVR:** Rnwy 27
Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.
South Bend Tower 118.9 122.5R 115.4T 109.3T
Gnd Con 121.9
South Bend App Con 121.0 122.5R 115.4T 109.3T
VFR ADV: Ctc App Con on 121.0
ILS 109.3 I-SBN Apch Brg 269° **LOM:** 341/SB
South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.
VHF/DF Ctc FSS.

TERRE HAUTE
§**HULMAN FIELD** *IFR* 5E FSS: TERRE HAUTE on Fld
585 H90/5-23(3) (S-100, T-150, TT-270) BL4,6 S3 F4, JP1 U2
Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18-36 clsd to acft over 25,000 lbs. Jet barrier rnwy 5-23.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 122.5R 118.3
VFR ADV Ctc App Con on 123.8
ILS 109.7 I-HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
VHF/DF Ctc FSS.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT FSS: LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK FSS: FT. WAYNE

IOWA

AMES RBn MHW 275/AMW FSS: DES MOINES
Remarks: Operd by city.

ATLANTIC RBn MHW 365/AIO FSS: OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL FSS: BURLINGTON

§**CEDAR RAPIDS MUNI** *IFR* 5SSW FSS: CEDAR RAPIDS on Fld
863 H70/8-26(2) (S-45, T-90, TT-375) BL4,6,8A,9,11 S-5
F4, TP-1 -JP1 U2 **REIL:** Rnwy 26 **RVR:** Rnwy 8
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 119.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I-CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBN MHW 375/CCY FSS: MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN FSS: BURLINGTON

§**DES MOINES MUNI** *IFR* 3SW FSS: DES MOINES on Fld
957 H90/12-30(3) (S-100, T-180, TT-350) BL4,6,8A,9,11 S-5
F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17-35 clsd to acft over 25,000 lbs.
DT Memorial Day—Labor Day.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6

IOWA—Continued

ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi
Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I-DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ FSS: CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD FSS: MASON CITY

IOWA CITY (L) BVORTAC 111.0/IOW FSS: CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW FSS: DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK FSS: BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN FSS: DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW FSS: MASON CITY

NEOLA (L) BVORTAC 117.1/EOL FSS: OMAHA

NEWTON (L) BVOR 112.5/TNU FSS: DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM FSS: OTTUMWA

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

§**SIOUX CITY MUNI** *IFR* 6S FSS: SIOUX CITY
1097 H90/13-31(3) (Max 2.25) BL4,6,8A,9,11 S-5
F4, JP-1 U2 **RVR:** Rnwy 21 **REIL:** Rnwy 13
Remarks: First 1500′ rnwy 22 not visible to tower. Arresting gear rnwy 13-31.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I-SUX Apch Brg 307° **LOM:** 414/SU
VHF/DF Ctc twr
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
Remarks: LOM is MHW.

SPENCER RBn MHW 257/SPW

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

§**WATERLOO MUNI** *IFR* 4NW FSS: WATERLOO on Fld
870 H54/12-30(3) (S-100, T-180, TT-305) BL4,8A,9 S-5
F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
App Con 125.8 122.5R 109.9T 108.2T
VFR ADV Ctc App Con on 125.8
ILS[1] 109.9 I-ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN FSS: LACROSSE

KANSAS

ANTHONY (L) BVOR 112.9/ANY FSS: WICHITA

CHANUTE (L) BVOR 109.2/CNU FSS: CHANUTE

DODGE CITY (L) BVORTAC 108.2/DDC FSS: DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP FSS: EMPORIA

FORT RILEY (L) VORW 109.4/FRI FSS: SALINA
RBn MHW 317/FRI

GARDEN CITY (H) BVORTAC 113.3/GCK FSS: GARDEN CITY
RBn H-SAB 257●/GCK

GOODLAND (L) BVORTAC 115.1/GLD FSS: GOODLAND

GREAT BEND RBn MHW 308/GRB FSS: RUSSELL

KANSAS—*Continued*

HILL CITY (H) BVORTAC 113.7/HLC **FSS:** HILL CITY

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§HUTCHINSON MUNI *IFR* 3E **FSS:** WICHITA (DL)
1542 H70/13–31(3) (S–50, T–65, TT–103) BL4,6,8A,9 S5 F4 JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Rnwy 31 threshold displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 125.5 122.5R 118.5 116.8T
VFR ADV Ctc App Con on 125.5
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP **FSS:** CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE **FSS:** KANSAS CITY
746 H61/17–35(4) (S–30, T–50, TT–85) BL6 S5 F–5, JP–1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys. Rnwy 17–35 only rnwy avbl ngts.
Tower[3] 119.1 126.2 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Kansas City App Con 126.2 122.′7R 121.1[1] 118.9[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Opers 0600–2200 daily, during hrs twr not in 2200–0600 tfc advisories will be furnished by Kansas City twr on 119.1.

LIBERAL (H) BVORTAC 112.3/LBL **FSS:** GARDEN CITY

McCONNELL (L)VORW 117.3/IAB

MANHATTAN (T) BVOR 110.2/MHK **FSS:** SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO **FSS:** SALINA
Remarks: Class to be BVORTAC Jan 6, 1967.

OSWEGO (L) BVOR 117.6/OSW **FSS:** JOPLIN

OTTAWA (L) VORW 111.6/TOE

PRATT RBn HW 356/PTT **FSS:** DODGE CITY

RUSSELL (L) BVOR 114.5/RSL **FSS:** RUSSELL

SALINA MUNI 3 SW **FSS:** SALINA
1271 H133/17–35(2) (S–100, T–185, TT–350) BL6 S5 F4 JP1 U2
Tower[1] 119.3 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R
ILS 110.5 I–SLN Apch Brg: 351° **LOM:** 344/SL
(H)BVORTAC 115.3/SLN 183° 4.2NM to fld.
Remarks: [1]Oper 0600–2200 lcl time.

TOPEKA
§PHILIP BILLARD MUNI *IFR* 3NE **FSS:** TOPEKA on Fld
880 H51/13–31(3) (S–70, T–100, TT–175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
Olathe Dep Con 120.5 122.5R
ILS[1] 109.5 I–TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

WICHITA
§BEECH *IFR* 5E **FSS:** WICHITA (DL)
1387 H50/18–36(3) F4

KANSAS—*Continued*

Remarks: P-lines N, S.
Tower[1] 119.9 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Oper 1400–2300Z Mon-Fri., Sat. 1300–1730Z. Clsd Sun and holidays.

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§WICHITA MUNI *IFR* 5SW **FSS:** WICHITA on Fld
1332 H73/1–19(2) (S–100, T–188, TT–350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr 9NM NNW.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS[1] 110.3
Radar Services: (BCN)
Wichita App Con 120.1 120.6 134.1 125.7 122.7R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I–ICT Apch Brg 011° **LOM:** 332/IC
(H) BVORTAC 113.8/ICT 162° 4.3 NM to rnwy 14.
RBn H–SAB 332●/IC 011° 4.1 NM to rnwy 1
Remarks: [1]Oper 0700–2100 lcl time. LOM is H-SAB.

KENTUCKY

ASHLAND RBn MHW 385/AKY **FSS:** HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG **FSS:** BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC **FSS:** LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT **FSS:** BOWLING GREEN

FALMOUTH (L) BVOR 109.0/FLM **FSS:** CINCINNATI

FORT KNOX (T) VOR 109.6/FTK
RBn MH 396/FTK

LEXINGTON
§BLUE GRASS FIELD *IFR* 5W **FSS:** LEXINGTON on Fld
978 H55/4–22(3) (S–95, T–128, TT–284) BL4,6,8A,9 S5 F5, JP–5 U2 **RVR:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.
Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd Con 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I–LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3 NM to fld
Lexington RBn MHW 242/LE 042° 3.5 NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ **FSS:** LONDON

LOUISVILLE
§BOWMAN FIELD *IFR* 5SE **FSS:** LOUISVILLE on Fld
549 H43/6–24(3) (Max 30) BL4,11 S–5 F–4, JP–4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

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§STANDIFORD FIELD *IFR* 4S **FSS:** LOUISVILLE (DL)
497 H78/1–19(3) (S-60, T–90, TT–200) BL4,6,8A,9,14,15 S–4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1

KENTUCKY—*Continued*

Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7
Radar Services:
App Con 124.5 126.2 . 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I-SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I-LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF Ctc twr.
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS FSS: LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB FSS: HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO FSS: LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB FSS: EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK FSS: PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK FSS: HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG FSS: LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX **FSS:** ALEXANDRIA
RBn HW 251/AEX

BARKSDALE (L) VOR 114.8/BAD
RBn HW 379/BAD

BATON ROUGE
§RYAN *IFR* 4 N **FSS:** BATON ROUGE on Fld
70 H60/4-22 (3) (S-137, T-175, TT-340) BL4, 6, 11 S5
F4, JP5 U2 **REIL:** Rnwy 13
Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 120.3 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW
Tower 118.3 122.5R **Gnd Con** 121.9
Baton Rouge App Con 120.3 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT
Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (L) BVOR 108.9/ESF **FSS:** ALEXANDRIA

GRAND ISLE (H) BVORTAC 113.5/GNI **FSS:** NEW ORLEANS
RBn HH-SAB 236°/GNI

HARVEY (L) BVORTAC 112.4/HRV **FSS:** NEW ORLEANS

§LAFAYETTE MUNI *IFR* 2 SE **FSS:** LAFAYETTE on Fld
42 H51/1-19(2) (S-29, T-47, TT-78) BL4, 8A, 9, 11 S5
F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1
Tower 118.5 122.5R **Gnd Con** 121.7
Clnc Del 121.7
App Con 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193° **LOM:** 257/LF
(L)BVORTAC 110.8/LFT 344° 3.0 NM to fld.
RBn [illegible] 375/LFT at fld.

§LAKE CHARLES MUNI *IFR* 3 S **FSS:** LAKE CHARLES on Fld
16 H65/15-33(2) (S-137, T-165, TT-350) BL4,5,6,8A, 9 S5
F4, JP4 **RVV:** Rnwy 15
Remarks: Rgt tfc rnwys 15 and 22.
Tower 120.7 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 113.4T 109.1T
ILS 109.1 I-LCH Apch Brg 148° **LOM:** 353/LC
(H) VORTAC 113.4/LCH 252° 6.3 NM to fld.
RBn CH 242/LCH 347° 2.1 NM to fld.

LOUISIANA—*Continued*

§MONROE *IFR* 3 E **FSS:** MONROE on Fld
79 H50/4-22(3) (S-50, T-75, TT-135) BL4,6,8,9 S5
F4, JP4 U2
Remarks: Apch to runwys 17-35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 119.1 122.5R
ILS[1] 109.5 I-MLU Apch Brg 039° **LOM:** 219/ML
(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.
Remarks: [1]Glide slope unusable below 320′ MSL.

NEW ORLEANS
§NEW ORLEANS-LAKEFRONT *IFR* 4 NE **FSS:** NEW ORLEANS on Fld
10 H57/17-35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2
Remarks: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 290′ N. 4424′ avbl lndg rnwy 35. 4186′ avbl lndg rnwy 17. No ngt operns rnwy 8-26. 1046′ (1049′ MSL) TV twr 8 NM S. 1049′ MSL) TV twr 7 NM SE.
Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7
Radar Services:
New Orleans App Con 125.5 122.7R 118.1
New Orleans Dep Con 120.6

§NEW ORLEANS INTL-MOISANT FLD *IFR* 10 W
FSS: NEW ORLEANS (DL)
3 H92/10-28(3) (S-180, T-225, TT-425) BL4,6,8A,9,11,14,15
S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10
Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300–1700Z Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28 threshold displaced 720′ SW. Usable length rnwy 28—8507′; rnwy 10-9227′. 720′ E of rnwy 28 threshold usable tkof only with approval ctl twr.
Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9
Radar Services:
New Orleans App Con [1]125.5 122.7R 118.1 109.9T
New Orleans Dep Con 120.6
Tfc Info Ctc App Con on 125.5, for other arpts in or tranversing the area ctc App Con on 118.1
ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.
Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.
Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.
ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS
New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.
New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 10.
VHF/DF Ctc twr.
Remarks: [1]Acft transitioning New Orleans NAS MCC freq 126.0 during above 5000′; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

POLK (L) VOR 108.4/POE

SHREVEPORT
§GREATER SHREVEPORT *IFR* 4 SW **FSS:** SHREVEPORT on Fld
257 H73/13-31(2) (S-83, T-120, TT-201) BL4, 6, 8A, 9, F4
RVV: Rnwy 13
Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9
Radar Services: (3CN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.6T
Shreveport Dep Con 119.9
Tfc Info Ctc App Con on 118.5
ILS 110.3 I-SHV Apch Brg 136° **LOM:** 230/SH
Shreveport RBn H-SAB 230/SH 136° 3.6 NM to rnwy 14.
Remarks: LOM is H-SAB

§SHREVEPORT DOWNTOWN *IFR* 2 N **FSS:** SHREVEPORT (GR)
179 H45/14-32(3) (S-6) BL4 S5 F4
Tower 119.5 122.5R **Gnd Con** 121.7

LOUISIANA—*Continued*

Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
(T)VOR 108.6/DTN at fld.
Shreveport (H) BVORTAC 117.4/SHV 158° 16 NM to fld.

TIBBY (L) BVORTAC 112.0/TBD FSS: NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA FSS: LAFAYETTE

MAINE

AUGUSTA (L)BVORTAC 111.4/AUG FSS: AUGUSTA
RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR FSS: OLD TOWN
Rng SBRAZ[1] 239/BW
Remarks: [1]Reliable reception distance 65 NM.

BAR HARBOR RBn MHW 320/BHB FSS: OLD TOWN

BRUNSWICK (L) VOR 116.2/NHZ
Rng MRLZ[1] 368/NZ
Remarks: [1]Reliable reception distance 50 NM.

HOULTON (L)BVOR 108.2/HUL FSS: HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE FSS: PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT FSS: MILLINOCKET
RBn H–SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU
Remarks: Owned and operd by Airport Commission.

§PORTLAND MUNI *IFR* 2W FSS: PORTLAND on Fld
66 H50/11–29(2) (S–94, T–116, TT–) BL 5, 6, 8A, 9, 10 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 29 **RVV:** Rnwy 11
Remarks: U.S. Customs lndg rgts arpt. ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27′ lctd at the end of rnwy and 800′ rgt cntrline. Lesser penetrations lctd 250′–430′ from end of rnwy and 720′–890′ left cntrline. 1890′–2180′ from end of rnwy and 900′–1090′ left cntrline.
Tower 120.9 122.5R 109.9T **Gnd Con** 121.9
App Con 120.9
ILS 109.9 I–PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI FSS: HOULTON

PRINCETON (L)BVOR 114.3/PNN FSS: HOULTON

ROCKLAND RBn MHW 353/RKD FSS: AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR FSS: HOULTON
Remarks: Reliable reception distance 40 NM.

WATERVILLE RBn MHW 375/AVI FSS: AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG

ANDREWS (L)VORTAC 113.1/ADW

BALTIMORE
§FRIENDSHIP INTL *IFR* 8 S FSS: WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–100, T–220, TT–500) BL6, 8A, 9, 10, 11 S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10 **REIL** rnwy 4, 22
Remarks: U.S. Customs lndg rgts arpt. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turboprop due noise complaints.
Tower 118.7 122.7R 109.7T **Gnd Con** 121.9
Radar Services:
Baltimore App Con 119.7 125.9[2]
Baltimore Dep Con 120.4
Tfc Info: Expanded radar service avbl.
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.
ILS[3] 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA

MARYLAND—*Continued*

Baltimore (L) BVORTAC 113.8/BAL on fld.
VHF/DF Ctc twr.
Remarks: [1]101°–281° [2]282°–100° [3]Glide slope unusable below 360′ MSL. **VOT:** 198.2.

CUMBERLAND RBn MHW 317/CBE FSS: MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK FSS: MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI FSS: WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV FSS: MORGANTOWN

HAGERSTOWN MUNI *IFR* 4N FSS: MARTINSBURG
704 H54(2) BL4 S5 F5 JP1 U2 (LC 733–1374
Fairchild Tower:[1] 118.5 126.2 ~~121.5~~
VFR ADV: Ctc Washington, Dulles Intl APP CON
Hagerstown (L) BVOR 109.8/HGR
Remarks: [1]Opers 7:30–1600 lcl time Mon-Fri. Operd by Fairchild Hiller Acft Corp.

NOTTINGHAM (L)BVORTAC 116.0/OTT FSS: WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT FSS: SALISBURY

POOLESVILLE RBn MHW 280/PLV FSS: WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY FSS: SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL FSS: SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI FSS: WASHINGTON

MASSACHUSETTS

BEDFORD
§LAURENCE G HANSCOM FLD *IFR* 1 S FSS: BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11 S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29
REIL: Rnwys 23, 29 **RVV:** Rnwy 11
Remarks: U.S. Customs lndg rgts arpt. 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. Jet barriers and arresting gear rnwy 11–29. FEE for commercial acft over 5000′ lbs.
Tower 118.5 122.5R **Gnd Con** 121.7
Radar Services:
Boston App Con 124.4
ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE
Bedford (L)VOR 116.0/BED on fld.
Bedford RBn HW 512/BE 112° 4.0 NM to fld.
VHF/DF Ctc twr.
Remarks: LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF FSS: BOSTON

BOSTON
§LOGAN INTL *IFR* 1 E FSS: BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A[1], 9[2], 10 S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L
RVV: Rnwy 22L
Remarks: U.S. Customs lndg rgts arpt. FEE. Lndg threshold rnwy 4R displaced 2507′ to NE, 10,000′ avbl except lndg length toward NE restricted to 7493′ during IFR conditions anl hrs of darkness. Rnwy 4L–22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. [1]Non-standard cntrline apch lgt sys. [2]Sequence flashers extend only 1200′.
Boston Tower 119.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7
Radar Services: (BCN)
Boston App Con [3]120.6 [1]126.5 126.2 124.4 122.5R 110.3T
Boston Dep Con 128.6 124.4
Tfc Info: Expanded radar service avbl.
PAR[4] Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.

MASSACHUSETTS—*Continued*

ILS 110.3 I–BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I–LIP[3] Apch Brg 330° BC unusable **LOM:** 346/LI
Boston (H)VORTAC 112.7/BOS on fld.
Boston RBn H–SAB 382●/BOS 234° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219′ MSL. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR FSS: WINDSOR LOCKS

DEVENS RBn MHW 352/AVE

FALL RIVER RBn MHW 395/FLR FSS: NANTUCKET

FITCHBURG RBn MHW 206/FIT FSS: BOSTON

GARDNER (L)BVORTAC 110.6/GDM FSS: WORCESTER

HYANNIS
§**BARNSTABLE MUNI** ***IFR*** 1 N FSS: NANTUCKET (DL)
52 H55/6–24(2) (S–63, T–110, TT–) BL5, 6, 8A, 9, 11
S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6
Remarks: Poles SE, SW. Rnwy 11–29 usable Oct 15–Apr 30 VFR days & by pilot req only.
Hyannis Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 127.7 134.1
Otis Dep Con 127.7
ILS[1] 110.5 I–HYA Apch Brg 245° BC unusable **LOM:** 342/HY
Hyannis (L)BVORTAC 108.6/HYA 241° 3.2 NM to rnwy 24.
Remarks: [1]Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM FSS: BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY FSS: NANTUCKET

§**NANTUCKET MEMORIAL** ***IFR*** 3 SE FSS: NANTUCKET on Fld
47 H50/6–24(2) (S–31, T–55, TT–) BL5, 6, 8A, 9 S3
F4 DT2 **RVV:** Rnwy 24
Tower [1]118.3 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 118.2 134.1
Otis Dep Con 118.2
ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC
Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.
VHF/DF: ctc FSS.
Remarks: [1]Oper 1200–0400Z advisory svc other times.

§**NEW BEDFORD MUNI** ***IFR*** 2 NW FSS: NANTUCKET (DL)
79 H50/5–23(2) (S–63, T–110, TT–) BL5,6,8 S5 F4 TPI U2 DT2
RVV: Rnwy 5
Remarks: U.S. Customs lndg rgts arpt. ILS apch zone for rnwy has unlgtd trees protruding above the 7:1 slope.
Tower 121.3 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I–EWB Apch Brg 053° **LOM:** 274/EW

NORWOOD RBn MHW 212/OWD FSS: BOSTON

ORANGE RBn MHW 365/ORE FSS: WORCESTER
Remarks: State owned and operated.

PITTSFIELD RBn MHW 343/PSF FSS: ALBANY

PROVINCETOWN MHW 230/PVC FSS: NANTUCKET
Operd Mass Aero Comm

WESTFIELD
§**BARNES MUNI** ***IFR*** 3 N FSS: WINDSOR LOCKS (LC 739-7132)
270 H90/2–20(3) (S–63, T–110, TT–195) BL5, 6 S3 F4, JP4 DT2
Remarks: U.S. Customs lndg rgts arpt. Jet barrier rnwy 2–20.
Westfield Tower[1] 118.1 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 120.0 134.1 109.2T 114.0T
Westfield Dep Con: 120.0 134.1
Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 0700–2300 lcl time.

WHITMAN (L)BVORTAC 109.0/HTM FSS: BOSTON

§**WORCESTER MUNI** ***IFR*** 3 W FSS: WORCESTER on Fld
1009 H70 (11–29(3) (S–137, T–180, TT–297) BL6, 7, S5
F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: U.S. Customs lndg rgts arpt. Rnwy 29 threshold displaced 150′.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I–ORH Apch Brg 332° BC unusable **LOM:** 282/OR
Remarks: [1]ILS glide slope unusable below 1209′ MSL acct roughness 750′ inside MM to lndg threshold. Auto and manual apchs below alt not authorized.

MICHIGAN

ALMA RBn MH 329/AMN FSS: SAGINAW

ALPENA
§**PHELPS COLLINS** ***IFR*** 6 W FSS: PELLSTON (DL)
689 H90(18–36 (3) (S95–T125–TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: U.S. Customs lndg rgts arpt. Rnwy 18 9000′ avbl lndg, 8000′ tkoff. Rnwy 36 8000′ avbl lndg. Rnwy 36 threshold displaced 1000′. Jet barirer 1050′ S of apch end rnwy 18. GCA(ASR–PAR) VFR trng status for availability ctc twr, GCA civil freqs 118.5, 134.1 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5R
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN 184° 4.4 NM to fld.

BATTLE CREEK
§**W K KELLOGG REGIONAL AIRFIELD** ***IFR*** 3 W FSS: JACKSON (DL)
941 H70/4–22(4) (S–80, T–140, TT–255) BL4,6,8A,9 S5 F5 TP-1
Remarks: Rnwys 9–27, 18–36 clsd during winter months. E ramp S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I–BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141′ MSL. LOM is MHW.

BELLAIRE RBn HW 251/ATM FSS: TRAVERSE CITY

BENTON HARBOR RBn MHW 400/BEH FSS: SOUTH BEND
Remarks: Privately owned and operated. Public instr flt rule apch procedure predicated on facil.

BOYNE FALLS RBn MHW 263/BFA FSS: PELLSTON
Remarks: VFR use only.

CADILLAC RBn MHW 269/CAD FSS: TRAVERSE CITY

CARLETON (L)BVORTAC 115.7/CRL FSS: DETROIT

CHARLEVOIX RBn MHW 222/CVX FSS: PELLSTON

COLDWATER RBn MHW 224/CWM FSS: JACKSON

DETROIT
§**DETROIT CITY** ***IFR*** 5 NE AOE FSS: DETROIT on fld
626 H51/15R–33L(3) (S250 T–350 TT) BL4, 11 S5 F4, JP1
U2 **REIL:** Rnwy 15
Remarks: 1063′ (1749′ MSL) 1057′ (1738′ MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0

MICHIGAN—*Continued*

ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226
ILS 111.3 I–DET Apch Brg 146° BC unusable **LOM** 338/DE
VHF/DF: ctc FSS
Remarks. VOT: 109.8

§DETROIT METROPOLITAN WAYNE ***IFR*** 13 SW AOE **FSS:** DETROIT (DL)
639 H105/3L–21R (4) (S–100, T–150, TT–270) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R
REIL: Rnwy 3R
Remarks: Fee. Rnwy 15 threshold displaced 650′. Acft on final apch btn ½–1 mi from threshold rnwy 21R and operg below 1150′ MSL cannot be observed from ctl twr.
Metro Tower 121.1 126.2 122.7R 122.7R 109.3T 110.7T
‡Clrnc Del 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[2] 125.15[1] 123.7[2]
Metro Dep Con 118.4[1] 123.7[2]
Tfc Info Ctc 123.7, 124.9 App Con.
ASR Rnwy 9, 3L, 3R, 21L, 27, 33 Ceil 400 Vsby 1 mi Min Alt 1039 Rnwy 21R Ceil 500 Vsby 1 mi Min Alt 1139
ILS 109.3 I–DTW Apch Brg 032° **LOM:** 388/DT
110.7[3] I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H–SAB 388●/DT 037° 6.6 NM to rnwy 3R
Remarks: LOM is SAB. [1]001–180, [2]181–360, [3]ILS unusable for auto apchs below 400′ AGL. Lclzr unusable beyond 12 mi outside 20° E side front crs. **VOT:** 109.0.

§WILLOW RUN ***IFR*** 19 SW **FSS:** DETROIT (DL)
716 H75/5–23(6) (S–60, T–90, TT–200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500′ rnwy 9L not visible from twr. 320′ overrun area SW end rnwy 5R–23L usable only tkoff rnwy 5R lndg rnwy 23L.
Tower 121.3 122.6R ~~121.5~~ 109.5T 114.9T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro Dep Con 118.4 123.7
Tfc Info Ctc Metro App Con on 124.9 or 123.7
ILS 109.5 I–YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF Ctc FSS
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

ESCANABA (L) BVOR 110.8/ESC FSS: MARQUETTE (DL)

FLINT
§BISHOP ***IFR*** 3 SW FSS: LANSING (DL)
781 H56/9–27 (S–40, T–60, TT–110) BL4,5,6,8A,9 S5 F4 U2 **RVR:** Rnwy 9.
Remarks: Rnwy 18 threshold displaced 635′.
Flint Tower 119.5 126.3 122.5R ~~121.5~~ 111.6T 109.9T
Gnd Con 121.9
VFR ADV Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

GAYLORD (T) BVOR 109.2/GLR FSS: PELLSTON (DL)

GRAND RAPIDS
§KENT COUNTY ***IFR*** 6 SE FSS: SAGINAW
793 H66/8–26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1 U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26. **REIL:**[1] Rnwys 8, 36
Remarks: [1]Non-Fed.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS[1] 109.7 I–GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 970′ MSL.

GROSSE ILE RBn HW 414/NFB

HOUGHTON (L)BVOR 112.8/CMX FSS: HOUGHTON
RBn H–SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT FSS: MARQUETTE

IRONWOOD (L)BVOR 108.8/IWD FSS: MARQUETTE

JACKSON
§REYNOLDS MUNI ***IFR*** 2W FSS: JACKSON on Fld
1000 H53/5–23(2) (S–60, T–80, TT–) BL5,11 S5 F4 U2
REIL: Rnwy 23 (1200–0400Z)
Remarks: Rnwy 5 threshold displaced 559′. Rnwy 31 threshold displaced 475′.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clrnc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
Jackson RBn MHW 281/JXN 219° 2.1 NM to fld.
Remarks: [1]Oper 1200–0400Z.

§KALAMAZOO MUNI ***IFR*** 1SE FSS: SOUTH BEND (DL)
874 H53/17–35(3) (S–30, T–50, TT–85[1]) BL4,6,8A,9 S5 F4 JP5
Remarks: [1](S–40, T–65, TT–110) avail rnwys 5–23 & 9–27. Rnwy 5 threshold displaced 496′ NE, rnwy 9 threshold displaced 325′ E, rnwy 27 threshold displaced 225′ W.
Tower[1] 118.3 122.7R ~~121.5~~ 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[2] 110.9 I–AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200–0400Z. Lclzr and glide slope monitored by ATU. LOM unmonitored 2300–0700.

KEELER (L) BVORTAC 115.1/ELX **FSS:** SOUTH BEND

KINCHELOE (L) VOR 108.6/INR
RBn MHW 410/IN

LANSING
§CAPITAL CITY ***IFR*** 3NW FSS: LANSING on Fld
859 H65/9–27(2) (S–30, T–40, TT) BL5,6,8A,11 S5 F4, JP1 **RVR:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037′ (1887′ MSL) twr 8 NM ESE and 1023′ (1923′ MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R ~~121.5~~ 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.
ILS 110.1 I-LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL FSS: TRAVERSE CITY

MARQUETTE (L) BVORTAC 109.0/MQT FSS: MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM FSS: GREEN BAY

MT. PLEASANT (L) BVOR 109.8/MOP FSS: SAGINAW

§MUSKEGON CO ***IFR*** 4S FSS: MUSKEGON on Fld
628 H56/14–32(3) (S–40, T–65, TT–110) BL6,8A,9 S5 F4 U2
RVR: Rnwy 32
Remarks: Rnwy 36 threshold displaced 300′. Rnwy 14 threshold displaced 300′.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 I–MKG Apch Brg 317° BC unusable LOM: 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828′ MSL.

MICHIGAN—*Continued*

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

PELLSTON (L) BVORTAC 118./PLN **FSS:** PELLSTON
RBn (H) 332/PLN

§PONTIAC MUNI *IFR* 5W **FSS:** DETROIT (DL)
974 H53/9–27(3) (S–40, T–65, TT–110) BL6 S5 F4 U2
Tower [1]120.5 122.5R ~~121.6~~ 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK 119° 4.9 NM to fld.
Remarks: [1]Oper 0700–2300 lcl time.

PULLMAN (H) BVORTAC 112.1/PMM **FSS:** SOUTH BEND

REED CITY RBn MHW 275/RCT **FSS:** MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW **FSS:** SAGINAW on fld
667 H56/5–23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 0700–2300 lcl time.

SALEM (L) BVORTAC 114.3/SVM **FSS:** DETROIT

SAULT STE MARIE (H) BVORTAC 112.2/SSM **FSS:** SAULT STE MARIE
RBn H–SAB 400●/SSM.

SAWYER (H) VOR 117.5/SAW
RBn HW 359/SAW

THREE RIVERS RBn MHW 407/HAI **FSS:** JACKSON

TRAVERSE CITY (L) BVOR 112.4/TVC **FSS:** TRAVERSE CITY
RBn H–SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC **FSS:** MUSKEGON

WHITEFISH (L) BVORTAC 116.6/FSP **FSS:** SAULT STE MARIE

MINNESOTA

ALEXANDRIA (L) BVOR) 112.8/AXN **FSS:** ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM **FSS:** ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE **FSS:** HIBBING

BEMIDJI (L) BVOR 108.6/BJI **FSS:** HIBBING

BRAINERD (L) BVOR 109.2/BRD **FSS:** ALEXANDRIA

DARWIN (L) BVORTAC 109.0/DWN **FSS:** MINNEAPOLIS

§DULUTH INTL *IFR* 5NW (AOE) **FSS:** HIBBING
1429 H101/9–27(3) (S–80, T–112.5, TT–205) BL4,6,8A,9,10
F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9–27
Remarks: Jet barrier 2650′ from apch end rnwy 9 and 600′ from apch end rnwy 27. 1000′ overruns rnwy 9–27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I–DLH Apch Brg 087° **LOM:** 379/DL
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H–SAB 379●/DL 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H–SAB. [1]Glide slopes unusuable beyond 12NM.

EVELETH (T) BVOR 108.2/EVM **FSS:** HIBBING

MINNESOTA—*Continued*

FERGUS FALLS (T) BVOR 110.4/FFM **FSS:** ALEXANDRIA
Remarks: State owned.

FAIRMONT (T)BVOR 110.2/FRM **FSS:** MASON CITY
Remarks: VFR use only.

FARMINGTON (L) BVOR 115.7/FGT **FSS:** MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ **FSS:** HIBBING
Remarks: VFR use only.

HIBBING (L) BVOR 110.8/HIB **FSS:** HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL **FSS:** HIBBING

MANKATO (L) BVOR 110.8/MKT **FSS:** MINNEAPOLIS

MINNEAPOLIS
§CRYSTAL *IFR* 8NW **FSS:** MINNEAPOLIS (DL)
869 H32/13L–31(2) (S–21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Rnwy 5L–23R threshold displaced 400′ lndg distance avbl 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600–2200.

§FLYING CLOUD *IFR* 11SW **FSS:** MINNEAPOLIS (DL)
909 H36/9L–27R(3) (S–14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
(L) BVOR 111.8/FCM at fld.
Remarks: [1]Oper 0600–2200.

§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) *IFR* 6S
FSS: MINNEAPOLIS on Fld
840 H100/11R–29L(3) (S–110, T–150, TT–270) BL6,8A,9,10,11
S5, F5 JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4, 29L
REIL Rnwy 11R, 22
Remarks: U.S. Customs lndg rgts arpt. First 1000′ NE end rnwy 4–22 clsd to non-mil acft. Rnwy 11L–29R threshold displaced 610′ SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4–22.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2
117.3T 110.37 109.39
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 200 Vsby ½ mi Min. Alt 1040
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I–MSP Apch Brg 295° **LOM:**[2] 266/MS
109.3[1] I–APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H–SAB 266●/MS 295° 5.5 NM to Rnwy 29L
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusabe beyond 16 nmi. [2]LOM is H-SAB. **VOT:** 111.0.

NEW ULM RBn MHW 272/ULM
Remarks: VFR use only. Owned and operated by the state.

MINNESOTA—*Continued*

NODINE (H) BVORTAC 117.9/ODI FSS: LaCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD FSS: GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF FSS: REDWOOD FALLS

§ROCHESTER MUNI *IFR* 7S FSS: ROCHESTER on Fld
1316 H64/13-31(2) (S-126, T-159, TT-260) BL4,6,8A,9 S5 F4, JP4 U2 **RVR:** Rnwy 31
Remarks: Rnwy 2-20 clsd to acft over 50,000 lbs GWT unless cross wind component rnwy 13-31 exceeds 25 knots.
Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.8
App Con 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I-RST Apch Brg 307° **LOM:** 254/RS
(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC FSS: MINNEAPOLIS
Remarks: VFR use only.

ST PAUL
§ST PAUL-DOWNTOWN (Holman Fld) *IFR* 1S FSS: MINNEAPOLIS (DL)
703 H55/12-30(3) (S-54, T-87, TT-160) BL2,5,11 S5 F5, JP5 U2 **REIL:** Rnwy 30
Remarks: 4562′ avbl lndg rnwy 12.
St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R 117.3T 111.8T 110.3T 109.3T 266T
Minneapolis Dep Con 119.3
Tfc Info Ctc Minneapolis App Con on 126.5.
St Paul (T)BVOR 108.6/STP 289° 4.6NM to fld.
Remarks: [1]Oper 0600-2200 lcl time.

THIEF RIVER FALLS (L) BVOR 108.4/TVF FSS: GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

WILLMAR (T) BVOR 108.4/ILL FSS: REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA FSS: LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG FSS: REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS FSS: TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV FSS: MOBILE

GREENVILLE (T) BVOR 110.2/GLH FSS: GREENWOOD

GREENWOOD (H) BVORTAC 114.7/GRW FSS: GREENWOOD

§GULFPORT MUNI *IFR* 3NE FSS: MOBILE (LC 436-4242)
28 H90/13-31(3) (S-80, T-120, TT-210) BL4,6 S5 F5, JP1 U2
Remarks: Arrest barrier in oper on Rnwy 13-31. J-bar avbl Rnwy 13-31 on 5 min notice. 1000′ overruns ea end Rnwy 13-31.
Tower 121.3 122.5R 109.0T **Gnd Con** 121.9
App Con 124.6 122.5R 109.0T
(L) BVORTAC 109.0/GPT on fld.

HATTIESBURG (L) BVORTAC 110.6/HBG FSS: McCOMB (LC 582-2009)

HOLLY SPRINGS (L) BVOR 112.4/HLI FSS: MEMPHIS

JACKSON
§HAWKINS FIELD *IFR* 2NW FSS: JACKSON
343 H54/16-34(2) (S-30, T-45, TT-80) BL4,6 S5 F4 JP1 U2
Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW. SW 1615′ (1949′) twr 10 NM WSW.
Tower[3] 118.7 126.2 122.5R ~~121.5~~
Radar Services:
Jackson App Con 123.9[1] 125.2[2]
Jackson Dep Con 123.9 125.2
Jackson RBn H-SAB 260●/JAN 183° 2.3NM to fld.
Remarks: [1]333°-152°. [2]153°-332°. [3]1200-0400Z.

§THOMPSON FIELD *IFR* 5E FSS: JACKSON on Fld
345 H85/15L-33R(2) (S-120, T-150, TT-265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.
Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7
Radar Services: (BCN)
Jackson App Con 125.2[1] 123.9[2]
Jackson Dep Con 125.2[1] 123.9[2]
ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745
Tfc Info: Ctc App Con
ILS 110.5 I-JAN Apch Brg 153° **LOM:** 365/JA
Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.
VHF/DF Ctc FSS
Remarks: [1]153°-332°. [2]333°-152°.

KEESLER RBn HW 391/BIX

KEWANEE (L) BVOR 113.8/EWA FSS: MERIDIAN

LAUREL (L) BVOR 108.6/LUL FSS: MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB FSS: McCOMB

MERIDIAN
§KEY FIELD *IFR* 3SW FSS: MERIDIAN on Fld
297 H80/1-19(2) (S-45, T-120, TT-220) BL6 S3 F4, JP3
RVV: Rnwy 01
Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Jet barrier rnwy 1-19. Servicing Fee after 7 P.M.
Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Meridian App Con 120.5
Meridian Dep Con 124.8
ILS 110.1 I-MEI Apch Brg 004° BC unusable **LOM:** 356/ME
Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.
Remarks: [1]Twr opers 1300-0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ FSS: McCOMB

PICAYUNE (L) BVOR 112.2/PCU FSS: NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP FSS: MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR FSS: COLUMBIA

BLUE SPRINGS (L) BVORTAC 113.6/BSP FSS: KANSAS CITY

BULTER (H) BVOR/DME 115.9/BUM FSS: KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI FSS: CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI FSS: COLUMBIA

DOGWOOD (L) BVORTAC 109.4/DGD FSS: SPRINGFIELD

FARMINGTON (H) BVORTAC 115.7/FAM FSS: CAPE GIRARDEAU

FORNEY (L) VOR 110.0/TBN
RBn MH 391/TBN

HALLSVILLE (L) BVORTAC 115.4/HLV FSS: COLUMBIA

JEFFERSON CITY (L) BVOR 110.2/JEF FSS: COLUMBIA

§JOPLIN MUNI *IFR* 4NE FSS: JOPLIN on Fld
980 H55(3) BL4,6 S5 F4 U1
Remarks: 999′ (2049′ MSL) twr 5 NM SSW.
ILS[1] 110.3 I-JLN Apch Brg 131° **LOM:** 219/JL
Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

MISSOURI—*Continued*

KANSAS CITY
§MID-CONTINENT INTL ***IFR*** 15NW **FSS:** KANSAS CITY
1011 H90/18–36(1) (S–100, T–188, TT–350) BL6,8A,9
RVR: Rnwy 36
Tower 120.7 **Gnd Con** 121.8
Radar Services:
Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
ILS 110.5 I–MCI Apch Brg 005° **LOM:** 359/MC
RBn H–SAB 359●/MC 005° 4.4 to rnwy 36.
Remarks: [1]E sector. [2]W sector. LOM is H-SAB.

§KANSAS CITY MUNI ***IFR*** 4N **FSS:** KANSAS CITY on Fld
758 H70/18–36(3) (S–110, T–165, TT–365) BL4,6,8A,9,11,13 S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36
Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.
Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9
‡Clrnc Del: 121.9
ATIS: [4]111.4
Radar Services: (BCN)
App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
Dep Con 118.1
Tfc Info: Ctc App Con
PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.
ILS[3] 109.9 I–MKC Apch Brg 187° BC unusable **LOM:** 219/MK
(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.
Riverside (T) VOR 111.4/RIS on fld.
VHF/DF Ctc twr.
Remarks: Acft approaching from 001–180° use 118.9 and/from 179°–360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. [4]Oper 0600–2400 lcl time
VOT: 108.6.

KIRKSVILLE (H) BVORTAC 114.6/IRK **FSS:** KIRKSVILLE

LAKE RBn HW 385/LAQ **FSS:** ST. LOUIS

MACON (L) BVOR 112.9/MCM **FSS:** KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW **FSS:** CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP **FSS:** VICHY

MARSHALL (L) BVOR/DME 109.6/MHL **FSS:** COLUMBIA

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS **FSS:** ST. LOUIS

NEOSHO (L) BVOR 116.6/EOS **FSS:** JOPLIN

READSVILLE (L) BVOR 112.0/REA **FSS:** COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW **FSS:** KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW **FSS:** ST. LOUIS

ST JOSEPH
§ROSECRANS MEMORIAL ***IFR*** 3WNW **FSS:** KANSAS CITY (DL)
826 H80/17–35(3) (S–60, T–160, TT–250) BL4,6,8 S5 F4 TP1
RVV: Rnwy 35
Tower 119.9 122.5R **Gnd Con** 121.9
App Con: 119.9 122.5R 108.2T 110.3T
ILS 110.3 I–STJ Apch Brg 352° **LOM:** 260/ST
(L) BVORTAC 108.2/STJ 167° 10.7NM to fld.

ST. LOUIS
§LAMBERT-ST LOUIS ***IFR*** 10NW **FSS:** ST. LOUIS on Fld
571 H100/12R–30L(4) (S–100, T–200, TT–400) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt (3 hr advance notice rqrd). Arresting gear all rnwys excp rnwy 12L–30R. Threshold lgts permly relctd 476′ SE apch end rnwy 12R.

MISSOURI—*Continued*

St. Louis Tower 118.5 126.2 122.7R **Gnd Con** 121.9
‡Clrnc Del 119.5
ATIS[4]: 110.3 109.7
Radar Services: (BCN)
St. Louis App Con 126.5[1] 123.7 118.1[2] 117.4T 110.3T 109.7T **St. Louis Dep Con** 119.9
Tfc Info Ctc St. Louis App Con.
PAR[3] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I–STL Apch Brg 238° **LOM:** 404/ST
109.7 I–LMR Apch Brg 117° **LOM:** 338/LM
VHF/DF Ctc twr.
St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.
St. Louis RBn H–SAB 338●/LM 117° 5.3 NM to fld.
Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [3]Radar monitoring of instrument apchs only at pilot's request. LOM is H–SAB. [4]Opers 0600–2400 lcl. **VOT:** 111.0

§ SPIRIT OF ST. LOUIS 20W **FSS:** ST. LOUIS (DL)
462 H51/7–25(1) (S–33, T–50, TT–80) BL6 S5 F4 JP1 DT2
Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, lndgs not authorized.
Tower[1] 118.3 122.5R 121.5X **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.
Remarks: [1]Opers 0700–2200 lcl time. [2]Southeast arrivals. [3]Northwest arrivals.

§SPRINGFIELD MUNI ***IFR*** 5NW **FSS:** SPRINGFIELD on Fld
1267 H56/1–19(2) (S–65, T–95, TT–165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1
Tower 119.9 122.5R **Gnd Con** 121.9
VFR ADV 125.8
App Con 125.8 122.5R 116.9T 109.9T
ILS 109.9 1–SGF Apch Brg 015° **LOM:** 404/SG
(H) BVORTAC 116.9/SGF 193° 6.8NM to fld
RBn H–SAB 254●/SGF 137° 3.6NM to fld
VHF/DF: ctc FSS.

VICHY (L) BVORTAC 117.7/VIH **FSS:** VICHY

WHITEMAN (L) VOR 109.0/SZL
RBn HW 314/SZL

MONTANA

BILLINGS
§LOGAN FIELD ***IFR*** 2NW **FSS:** BILLINGS on Fld
3606 H86/9–27(3) (S–130, T–200, TT–400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9
Remarks: 1000′ overrun each end rnwy 9–27.
Billings Tower 118.3 122.5R
VFR ADV: 120.5
Billings Gnd Con 121.9
Billings App Con 120.5 122.5R 114.5T 110.3T
ILS 110.3 I–BIL Apch Brg 095° **LOM:** 251/BI
Billings RBn H–SAB 400●/BIL 243° 1.4NM to fld.
VHF/DF: ctc FSS.

BOZEMAN (L) BVOR 112.2/BZN **FSS:** BOZEMAN
RBn H–SAB 329●/BZN

BUTTE (L) BVORTAC 111.6/BTM **FSS:** BUTTE

CUT BANK (L) BVORTAC 114.4/CTB **FSS:** CUT BANK
RBn[1] **BH** 263/CTB
Remarks: [1]VFR use only.

MONTANA—*Continued*

DILLON (H) BVORTAC 113.0/DLN FSS: DILLON
RBn[1] **BH** 379/DLN
Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU FSS: MISSOULA

GLASGOW (H) VOR 113.9/GSG
RBn H 236/GSG

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§GREAT FALLS INTL ***IFR*** 3SW FSS: GREAT FALLS on Fld
3671 H90/3–21(4) (S–60, T–80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34
Remarks: Rnwy 7–25 not authorized to acft over 64,000 lbs GWT. Jet barrier rnwy 3–21.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1 119.3 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.1 119.3 or 122.7R
ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171
ILS 110.3 I–GTF Apch Brg 341° BC unusable **LOM:** 371/GT
(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld
RBn H–SAB 371●/GT 009° 7.2 NM to fld.
Remarks: LOM is H–SAB.

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§HELENA ***IFR*** 2NE FSS: HELENA on Fld
3873 H70/8–26(3) (S–90, T–120, TT–200) BL 5,11 S5 F4, JP1 U2 **REIL** rnwy 26
Remarks: Rnwy 11–29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
(H) BVORTAC 117.7/HLN at fld.
RBn[1] **SBH** 317/HLN
Remarks: [1]VFR use only.

KALISPELL (L) BVOR 108.4/FCA FSS: MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT FSS: LEWISTOWN
RBn[1] **SBH** 353/LWT
Remarks: [1]VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM FSS: LIVINGSTON
RBn[1] **BH** 224/LVM
Remarks: [1]VFR use only.

MALMSTROM (L) VOR 116.3/GFA

MILES CITY (H) BVORTAC 112.1/MLS FSS: MILES CITY
RBn H–SAB 320●/MLS

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§MISSOULA CO ***IFR*** 4NW FSS: MISSOULA on Fld
3203 H–70/11–29(3) (S–120, T–155, TT–235) BL6 S5 F4 U2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1]Oper 1300–0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA FSS: BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA FSS: SCOTTSBLUFF
RBn[1] **HW** 287/AIA
Remarks: [1]Owned by State.

BEATRICE (T) BVOR 110.6/BIE FSS: LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR FSS: CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

NEBRASKA—*Continued*

COLUMBUS (T) BVOR 110.4/OLU FSS: LINCOLN
Remarks: Owned by State.

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§GRAND ISLAND MUNI ***IFR*** 4NE FSS: GRAND ISLAND on Fld
1846 H72/3–21(3) (S–92, T–134, TT240) BL5,6,8A,9 S5 U–2 F5, JP–1
Remarks: 1000′ asphalt overrun both ends rnwy 17–35. BAK/12 arresting gear lctd 90′ in overrun rnwy 35 and 80′ in overrun rnwy 17.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1]Oper 1200–0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI FSS: GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT FSS: IMPERIAL

IMPERIAL RBn BH 391/IML FSS: IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN FSS: SIOUX CITY

KEARNEY (T) BVOR 111.2/EAR FSS: GRAND ISLAND
Remarks: Owned by state.

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§LINCOLN MUNI/AFB ***IFR*** 4NW FSS: LINCOLN on Fld
1198 H129/17R–35(3) *(Max–15) BL6,8A,9,11 S5 F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: Rnwy 14–32 open days VFR tfc only. Rnwy 14 threshold displaced 750′ SE. Rnwy 17R–36L 1000′ asphalt each end. Ctn-jet tfc. *Rnwy 17L–35R (S31, T50, TT87).
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I–LNK Apch Brg 351° **LOM:** 385/LN
(L) BVORTAC 116.0/LNK
RBn MHW 385/LN
Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC on 124.8

McCOOK (L) BVOR 110.0/MCK FSS: NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK FSS: OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF FSS: NORTH PLATTE
RBn H–SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD ***IFR*** 3NE FSS: OMAHA on Fld
983 H85/14–32(2) (S–100, T–184, TT–346) BL4,8A,9,11,12 S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: U.S. Customs lndg rqts arpt. 1399′ (2549′ MSL) twr 6.5 NM W.
Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
ATIS:[3] 110.3
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R 116.3T[2]
Omaha Dep Con 124.5 118.0 122.5R[2]
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I–OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H–SAB 320●/OM 136° 4.1 NM to rnwy 14.
Remarks: [1]BC unusable beyond 16 NM. [2]Freqs for Shenandoah, Iowa. [3]Opers 0600–2300. LOM is H–SAB.

O'NEILL (H) BVORTAC 113.9/ONL FSS: GRAND ISLAND

PAWNEE CITY (H) BVORTAC 112.4/PWE FSS: LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF FSS: SCOTTSBLUFF
RBn MHW[1] 341/BFF
Remarks: [1]Operd by State.

SIDNEY (H) BVOR 115.7/SNY FSS: SIDNEY

WOLBACH (H) BVORTAC 114.7/OBH FSS: GRAND ISLAND

NEVADA

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM **FSS:** ELKO

BEATTY (H) BVORTAC 114.7/BTY **FSS:** TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD **FSS:** LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL **FSS:** TONOPAH

CURRANT (L) BVOR 113.4/URR **FSS:** ELY

ELKO (L) BVORTAC 114.5/EKO **FSS:** ELKO
RBn SBH 391/EKO

ELY (L) BVOR 110.6/ELY **FSS:** ELY

HAZEN (L) BVORTAC 114.1/HZN **FSS:** LOVELOCK

INDIAN SPRINGS RBn HW 215/INS

LAS VEGAS
§McCARRAN ***IFR*** 5S **FSS:** LAS VEGAS on fld.
2171 H125/7–25(3) (S–100, T–200, TT–380) BL4,6,10 S5 F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750'W end. 11,795' avbl lndg rnwy 7 and tkof rnwy 25 day/ngt. 12545' avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625' SW end. 6878' avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503' avbl lndg rnwy 19 and tkof rnwy 1 day/ngt. Rnwy 32 threshold displaced 379' SE end. 4021' avbl rnwy 32 day/ngt. 4400' avbl tkof rnwy 32 day only. 4021' avbl tkof rnwy 32 ngt only. 4400' avbl lndg rnwy 14 day only. 4021' avbl lndg rnwy 14 ngt only. 4021' avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 120.1 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H–SABZ 206●/LAS 196° 8.5 NM to rnwy 19.

LOVELOCK (L) BVORTAC 116.5/LOL **FSS:** LOVELOCK

MERCURY RBn HW 326/MCY

MINA (L) BVOR 113.1/MVA **FSS:** TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM **FSS:** LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO **FSS:** LOVELOCK

§RENO MUNI ***IFR*** 2SE **FSS:** RENO on Fld
4411 H90/16–34(2) (S–100, T–160, TT–250)* BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: A-gear each threshold rnwy 16-34. *Rnwy 7–25 (S–100, T–200, TT–350).
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 351T
ILS 109.3 I–RNO Apch Brg 162° **LMM:** 254/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn MHW 351/RNO 161° 2.3 NM to fld.
Remarks: LMM is MHW.

SOD HOUSE (L) BVOR 114.3/SDO **FSS:** LOVELOCK

SPARKS RBn HW 254/SPK **FSS:** RENO

TONOPAH (L) BVORTAC 117.2/TPH **FSS:** TONOPAH

WELLS (L) BVOR 114.2/LWL **FSS:** ELKO

WILSON CREEK (H) BVOR 116.3/ILC **FSS:** CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML **FSS:** CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON **FSS:** CONCORD

NEW HAMPSHIRE—*Continued*

KEENE (L) BVOR 109.4/EEN **FSS:** CONCORD
RBn MHW[1] 224/EEN
Remarks: [1]Oper by State.

LACONIA RBn MHW 400/LCI **FSS:** CONCORD
Remarks: Oper by State. (LC 524–2236)

LEBANON (L) BVOR 113.7/LEB **FSS:** LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) ***IFR*** 4S **FSS:** CONCORD (LC 669–1641)
233 H70/17–35(2) (S–127, T–200, TT–400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower 121.3 126.2 122.5R
ILS 108.3 I–MHT Apch Brg 352° BC unusable
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW[1] 338/MHT 352° 3.5NM to fld.
Remarks: [1]Oper by State.

NASHUA RBn MHW 260/AMH **FSS:** CONCORD
Remarks: Oper by State. (LC 889–0301)

NORTH CONWAY RBn MHW 334/CWN **FSS:** CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR **FSS:** CONCORD
Remarks: To be in common system.

WHITEFIELD RBn MHW 272/HIE **FSS:** LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) ***IFR*** 9NW
FSS: MILLVILLE (LC 399–8096)
76 H100/13–31(4) (S–63, T–88, TT–160) BL4,6,8A,9 S3 F5, JP4 DT2
Remarks: Fee. BAK/9 arresting gear installed 2000' from threshold rnwy 13 and 1000' from threshold rnwy 31. Pendant 1½" steel cable stretched across rnwy 31; ½–4" above surface with rubber doughnuts extending 6" above surface. Pendant may gyrate. Unlgtd frangible distance to go mrkrs every 1000' each side rnwy 13–31.
Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I–ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlanta City NAFEC (L) VORTAC 108.6/ACY at NAFEC
VHF/DF Ctc twr.
Remarks: [1]400 authoriezd for rnwys 13, 17, 22, 26, 31.

BARNEGAT (L) BVOR 116.7/BGT **FSS:** MILLVILLE

CHATHAM RBn MHW 254/CAT **FSS:** NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL **FSS:** TETERBORO

COYLE (H) BVORTAC 113.4/CYN **FSS:** MILLVILLE

LAKEHURST RBn HW 396/NEL

MILLVILLE (L) BVORTAC 115.2/MIV **FSS:** MILLVILLE
RBn SBH 363/MIV

NEW JERSEY—*Continued*

§MORRISTOWN MUNI *IFR* 2E **FSS:** TETERBORO (LC JE8-2196)
187 H40/4–22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 1600′ rnwy 22. Trng flts by nonbased acft prohibited. Gliders-kit, homemade and pvt flighter type acft prohibited. Lndg fee. Turbojet operns prohibited rnwy 12; turbojet tkof prohibited rnwy 30. Vehicle tfc crossing at jct N/S txwys; manned intermittently.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6[3] 124.3[2] 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: [1]Oper 0800–2300 lcl time. [2]270–089° [3]090–269°

§NEWARK MUNI *IFR* 2 S **FSS:** TETERBORO (DL)
18 H70/4–22(2) (S–115, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE.
Tower 118.3 122.7R
‡Clrnc Del 121.4 **Gnd Con** 121.8
ATIS: 109.1 or 110.3 (Arr)
Radar Services: (BCN)
App Con 120.6[2] 124.3[3] 122.7R
Dep Con 119.2
Tfc Info Inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I–EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW[4]
109.1 I–ARK Apch Brg 217° **LOM:** 242/AR
RBn H–SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix [2]270–089° [3]090–269° [4]LOM unusable beyond 12 mi 050–090°. **VOT:** 108.6

PALISADES PARK MHW 233/PAD

PATERSON RBn MHW 347/PNJ **FSS:** TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV **FSS:** N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE **FSS:** MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ **FSS:** TETERBORO

SPARTA (L)BVORTAC 112.3/SAX **FSS:** TETERBORO

STILLWATER (L) BVORTAC 109.6/STW **FSS:** TETERBORO

§TETERBORO MUNI *IFR* 1 SW **FSS:** TETERBORO on Fld
7 H50/6–24(3) S–50, T–80, TT–) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission. Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14–32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I–TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY *IFR* 4 NW **FSS:** PHILADELPHIA (LC. 882-1590)
213 H52/6–24(3) S–31.5, T–51, TT–) BL4,11,12,[1] S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. [1]1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9

NEW JERSEY—*Continued*

Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R 109.3T
Philadelphia Dep Con 119.0[1] 128.55[2]
ILS 111.3 I–TTN Apch B:g 056° BC unusable. **LOM:** 369/TT
Remarks: [1]270–089°. [2]090–269°.

WOODSTOWN (L)BVOR 112.8/OOD **FSS:** MILLVILLE

NEW MEXICO

ALAMOGORDA RBn HWZ 375/ALM

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE **FSS:** ALBUQUERQUE on Fld
5352 H127/8–26(4) (S–158, T–200, TT–400) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVR:** Rnwy 35
Remarks: Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC–3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
Gnd Con 121.9
Clrnc Del 119.2
ATIS: 110.3
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 121.1 122.5R 113.2T 110.3T
Albuquerque Dep Con 123.9
Tfc Info Ctc App Con 25 mi out on 121.1.
PAR[2] Rnwy 8[1] Ceil 300 Vsby 3/4 mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I–ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: [1]500–1½ rqrd for civil jet acft. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO (L)BVOR–DME 110.0/ACH **FSS:** LAS VEGAS

CANNON (L) VORW 115.7/CVS
RBn HW 272/CVS

CARLSBAD (L)BVOR 116.3/CNM **FSS:** CARLSBAD

CIMARRON (H) BVORTAC 116.4/CIM **FSS:** TRINIDAD

COLUMBUS (L) BVORTAC 111.2/CUS **FSS:** DEMING

CORONA (L) BVOR 115.5/CNX **FSS:** ALBUQUERQUE

DEMING (L) BVOR 108.6/DMN **FSS:** DEMING

§FARMINGTON MUNI *IFR* 2 NW **FSS:** FARMINGTON of Fld
5503 H67(2) (Max–60) BL4 S5 F4 TP1 U2
Tower[1] 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

GALLUP (H)BVORTAC 115.1/GUP **FSS:** ZUNI

GRANTS (L)BVORTAC 116.5/GNT **FSS:** GRANTS

§HOBBS, LEA COUNTY *IFR* 4 W **FSS:** HOBBS on Fld
3659 H63/3–21 (4) (S–115 T–200 TT–400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN (L) VORW 115.8/HMN

LAS VEGAS (H) BVORTAC 117.3/LVS **FSS:** LAS VEGAS

OTTO (L) BVOR 114.0/OTO **FSS:** ALBUQUERQUE

PINON (L) BVOR 110.4/PIO **FSS:** EL PASO

§ROSWELL MUNI *IFR* 1 NW **FSS:** ROSWELL on Fld
3623 H58/17–35(4) (S–42, T–60, TT–110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.

NEW MEXICO—*Continued*

Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 120.2 122.7R
Walker Dep Con 123.8
Tfc Info Ctc Walker App Con 30 mi out at 10,000′ and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn SABH[2] 305●/ROW 312° 7.9 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]Oper 1300–0500Z. [2]Oper 1200–0500Z.

§SANTE FE COUNTY MUNI *IFR* 9 SW **FSS:** SANTA FE on Fld
6344 H83/2–20 (3) (S–45, T–60, TT–) BL4 S5 F4, JP1 U2
Tower 119.5 126.2 122.5R **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO (H) BVORTAC 116.8/ONM **FSS:** ALBUQUERQUE

TAOS (L) BVOR 117.6/TAS **FSS:** SANTA FE

TRUTH OR CONSEQUENCES (H) BVORTAC 112.7/TCS
FSS: TRUTH OR CONSEQUENCES

TUCUMCARI (H) BVORTAC 113.6/TCC **FSS:** TUCUMCARI

ZUNI (L) BVORTAC 113.4/ZUN **FSS:** ZUNI

NEW YORK

§ALBANY COUNTY *IFR* 6 NW AOE **FSS:** ALBANY on Fld
288 H50/1–19 (3) (S–110, T–200, TT–400) BL4,6,8A,9,11 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S. Rnwy 15–33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I–ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: VOT: 109.0

ALPINE RBn MHW 245/ALP **FSS:** ELMIRA

AVON RBn MHW 344/AVN **FSS:** BUFFALO

BABYLON RBn MHW 275/BBN **FSS:** NEW YORK

BECKSGROVE RBn MHW 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY *IFR* 7 N **FSS:** BINGHAMTON on Fld
1629 H56/16–34(2) (S–94.5, T–135, TT–) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34
Binghamton Tower 119.3 122.5R 114.3T 109.6T
Gnd Con 121.9
Radar Services: (BCN)
Binghamton App Con 118.6 **Binghamton Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I–BGM Apch Brg 338° BC unusable **LMM:** 203/GM
Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.
Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO
§GREATER BUFFALO INTL *IFR* 5 E AOE **FSS:** BUFFALO on Fld
722 H81/5–23(2) (S–120, T–180, TT–400) BL4, 6, 8A, 9 11 S5 F5, JP1, JP4, JP5 DT2
Remarks: Fee.
Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7
Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7

NEW YORK—*Continued*

Buffalo Dep Con 125.5
Tfc Info. Inbnd acft ctc Buffalo App Con on 126.5 or 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 111.3 I–BUF Apch Brg 232° **LOM:** 219/BU
108.5 I–GBI Apch Brg 052° BC unusable **LOM:** 204/GB
Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld
Buffalo RBn BH 260/BUF 211° 0.9 nm to fld
VHF/DF Ctc App Con.
Remarks: BC unusable beyond 15 NM. **VOT:** 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM **FSS:** GLENS FALLS

CANARSIE (T) VORW 111.0/CRI **FSS:** JFK TWR

CARMEL (L) BVORTAC 116.6/CMK **FSS:** TETERBORO

DEER PARK (L) VORTAC 111.2/DPK **FSS:** NEW YORK

DE LANCEY (L) BVOR 112.1/DNY **FSS:** BINGHAMTON

DUNKIRK (L) BVOR 114.2/DKK **FSS:** BUFFALO

ELMIRA
§CHEMUNG COUNTY *IFR* 5 NW **FSS:** ELMIRA on Fld
951 H56/6–24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2
Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.95 122.5R 120.0[1]
ILS 109.1 I–ELM Apch Brg 239° BC restricted
Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.
Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.
Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE **FSS:** BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT **FSS:** UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL **FSS:** GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO **FSS:** NEW YORK

HANCOCK (L) BVORTAC 109.0/HNK **FSS:** BINGHAMTON

HUGUENOT (H) BVORTAC 116.1/HUO **FSS:** WILKES-BARRE

ISLIP
§LONG ISLAND–MacARTHUR *IFR* 7 NE **FSS:** NEW YORK on Fld
98 H50/6–24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6
Remarks: Trees E.
Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7
Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
ILS 108.3 I–ISL Apch Brg 057° **LOM:** 366/IS.
VHF/DF: ctc FSS.
Remarks: [1]054–110°. [2]110–160°.

ITHACA (L) BVOR 111.8/ITH **FSS:** ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW **FSS:** BRADFORD (DL)

KINGSTON (L) BVOR 117.6/IGN **FSS:** POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS **FSS:** MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF
RBn MHW 335/SWF

NEW YORK
§JOHN F KENNEDY INTL *IFR* 11 SE **FSS:** NEW YORK (DL)
12 H146/13R–31L(6) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 13L, 13R, 22R, 31L.
RVR: Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]

NEW YORK—*Continued*

Remarks: Fee. U.S. Customs lndg rgts arpt. Clsd to fighter-type, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R–31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3320′. Rnwy 22R threshold displaced 3022′. Rnwy 13L threshold displaced 985′ rnwy 31R threshold displaced 1024′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Non-standard. Lead in lgts rnwy 13L and 13R.
Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡**Clrnc Del** 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5
Radar Services: (BCN)
Kennedy App Con 127.4 134.1 135.35 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
Tfc Info: Expanded radar service avbl.
PAR Rnwy 4R Ceil 200 Vsby ½ Min Alt 212.
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 31L 22R 31R Ceil 500 Vsby 1 mi Min Alt 512.
ILS 109.5 I–JFK Apch Brg 042° **LOM:** 373/JF[3]
110.9 I–IWY Apch Brg 222° **LOM:** 226/IW
111.5 I–RTH Apch Brg 311° BC unusable. **LOM:** 268/RT
Kennedy (H) BVORTAC 115.9/JFK on fld.
Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.
VHF/DF Ctc twr.
Remarks: [1]054–110°, [2]110–160°. [3]LOM is MHW. **VOT:** 112.5.

§LA GUARDIA *IFR* 4E **FSS:** TETERBORO (DL)
21 H70/4–22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4
REIL: Rnwy 13–31, 22
Remarks: Fee. U.S. Customs lndg rgts arpt. Rnwy threshold displaced 173′ NW. 5813′ avbl nldg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. 1465′ (1520′ MSL) twr 5 NM WSW. Mag anomalies may affect compass heading when using extensions rnwys 13 and 22 for tkof.
FAA Dep Proc: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
Tower 118.7 122.7R 109.9T 108.5T 110.5T
‡**Clrnc Del** 126.15 **Gnd Con** 121.7
ATIS: (Arr) 113.1
Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 108.5T 110.5T
Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [4]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
Rnwy 22 Ceil 200 Vsby ½ mi Min Alt 221
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.
ILS 109.9 I–LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I/GDI[2] Apch Brg 134° [5]**LOM:** 233/PAD
110.5 I–URD[3] Apch Brg 223° BC unusable **LOM:** 385/UR
La Guardia (L) VOR–DME 113.1/LGA 177° 0.4 NM to fld
Palisade Park MHW 233/PAD
VHF/DF Ctc App Con.
Remarks: Flwy shut down indef due arpt constrn: Rnwy 4 ILS. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000–3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235–245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. [5]LOM is Palisades Park MHW. **VOT:** 109.0.

NEW YORK—*Continued*

§NIAGARA FALLS MUNI *IFR* 4 E **FSS:** BUFFALO (DL)
590 H91/10L–28R(4) (S–90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
Remarks: U.S. Customs lndg rgts arpt. No signal SS–SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.
Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5
Buffalo Dep Con 125.5
ILS 110.1 I–IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF Ctc twr.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200–0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

§ROCHESTER-MONROE CO *IFR* 3 SW AOE **FSS:** BUFFALO
560 H70/4–22(5) (S–126, T–160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F4, JP1 U2 DT2 **RVR:** Rnwy 28.
Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS–SR to indicate IFR conditions.
Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I–ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I–MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON

ROME RBn HW 212/RME

SARANAC LAKE (L) BVOR 111.2/SLK **FSS:** MASSENA

§SCHENECTADY COUNTY *IFR* 2 N **FSS:** ALBANY (DL)
378 H70/4–22(3) (S–52) BL4, 6 S5 F5, JP5 DT2
Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr. Rnwy 28, 15 and 33 apch restricted by trees.
Tower[1] 121.3 126.2 122.5R 356T
Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF Ctc twr.
Remarks: Opers 1200–0400Z.

SYRACUSE
§HANCOCK *IFR* 4 NE **FSS:** SYRACUSE on Fld
421 H90/10–28(3) (S–120, T–190, TT–350) BL4, 6, 8A, 9, 14 S5 F5, JP4 DT2 **RVV:** Rnwy 28

NEW YORK—*Continued*

Remarks: U.S. Customs lndg rgts arpt. Rnwy 6–24 limited to acft under 12,500 lbs GWT.
Syracuse Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 124.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I–SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY ***IFR*** 7 NW **FSS:** UTICA on Fld
742 H60/15–33(2) (S–60, T–80, TT) BL4, 6, 8A, 9 S5
F2 U2 DT2 **RVV:** Rnwy 33.
Utica Tower 118.1 122.7R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.7R
Griffiss Dep Con 120.9
ILS 109.3 I–UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WESTHAMPTON BEACH
SUFFOLK COUNTY (T) VOR 110.4/FOK

WHITE PLAINS
§WESTCHESTER COUNTY ***IFR*** 3NE **FSS:** NEW YORK
439 H65/16–34(3) (S–63, T–110, TT–275) BL4, 8A, 9 S5
F5, JP5 U2 DT2
Remarks: Trees NW, SE. Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I–HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI ***IFR*** 9 S **FSS:** GREER (LC 684–4401)
2161 H65/16–34(1) (S–100, T–160, TT–275) BL6,8A,9,10 S5
F5, JP1, JP4 U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.
Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I–AVL Apch Brg 342° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA **FSS:** ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB **FSS:** WILMINGTON

CHARLOTTE
§DOUGLAS MUNI ***IFR*** 4 W **FSS:** HICKORY (LC 332–8161)
748 H78/18–36 (2) (S–60, T–150, TT–240) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932 MSL) twr 10 NM ENE. 1071′ (1871′ MSL) twr 10.5 NM ENE. Rnwy 18 threshold displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
ATIS[3] 110.6
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0

NORTH CAROLINA—*Continued*

ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148
ILS[2] 109.5 I–CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L)VORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. [3]To be comsnd Nov. 15. **VOT:** 112.0.

COFIELD (L) BVORTAC 114.4/CVI **FSS:** ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG **FSS:** ELIZABETH CITY

FAYETTEVILLE
§GRANNIS FIELD ***IFR*** 3 S **FSS:** FAYETTEVILLE on Fld
189 H50/3–21(2) (S–64, T–120, TT–200) BL4,6,8A,9 S5 F4, JP4
RVV: Rnwy 3
Remarks: Trees NNW, SSE.
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I–GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG

§GREENSBORO-HIGH POINT/WINSTON-SALEM ***IFR*** 7 W
FSS: RALEIGH (LC BR 56341)
926 H64/14–32(2) (S–40, T–140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Remarks: Rnwy 5 threshold displaced 290′.
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Grensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1326
ILS[1] 109.9 I–GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY **FSS:** HICKORY

KINSTON (L) BVORTAC 109.6/ISO **FSS:** NEW BERN

LIBERTY (L) BVOR 111.2/LIB **FSS:** RALEIGH-DURHAM

NEW BERN (L) BVOR 108.4/EWN **FSS:** NEW BERN

PINEHURST (L) BVORTAC 111.8/SOP **FSS:** FAYETTEVILLE

§RALEIGH-DURHAM ***IFR*** 9 NW **FSS:** RALEIGH on Fld
435 H75/5–23(3) (S–110, T–160, TT–270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: No signal btn SS–SR indicate gnd vsby of less than 2.6 NM and or ceil less than 1000′.
Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 120.6 122.5R
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I–RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H–SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 633′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT **FSS:** ROCKY MOUNT

SEYMOUR-JOHNSON AFB (L) VOR 116.5/GSB
RBn MHW 285/GSB
ILS[1] 109.3 I–GSB Apch Brg 078° BC unusable **LOM** 285/GSB
Remarks: LOM is MHW. [1]Glide slope unusable below 270′

NORTH CAROLINA—*Continued*

WEEKSVILLE RBn (HW) 254/EKV FSS: ELIZABETH CITY

WILMINGTON

§NEW HANOVER CO *IFR* 2 NE FSS: NEW BERN (LC 762–7567)

31 H80/5–23(3) (S–90, T–120 TT–212) BL4, 6, 8A, 9 S5 F5, JP5 **RVR:** Rnwy 34.

Remarks: Rnwy 27 threshold displaced 800′ W. Usable length rnwy 27 Indg 3327′; tkof 4127′. Rnwy 9–4127′ Indg; 3327′ tkof. Due non-vsby some areas of fld, ctc twr. Jet aresting rnwy 16–34.

Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9

Clrnc Del 121.9

Wilmington App Con 118.8 122.5R 110.3T

ILS[1] 110.3 I–ILM Apch Brg 343° **LOM:** 281/IL

Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.

Remarks: [1]Glide slope unusable below 223′.

WINSTON–SALEM

§SMITH REYNOLDS *IFR* 2NE FSS: HICKORY

969 H66/15–33(3) (S–40, T–85, TT–105)* BL4, 6, 8A, 9, 12 S5 F5, JP5 U2 **FVV:** Rnwy 33.

Remarks: Apch lgts oper 0700–2300 only. Rnwy lgts 15–33 only oper 2300–0700. *Rnwy 3–21 (S–56, T–85, TT–105)

Winston-Salem Tower[1] 118.7 126.2 122.7R 278T

Gnd Con 121.7

Radar Services: (BCN)

Greensboro App Con 118.5 122.5R 120.9 109.9T

Greensboro Dep Con 124.6

ILS[2] 110.3 I–INT Apch Brg 328° BC unusable **LOM:** 317/IN

Remarks: [1]Oper 1200–0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300–0700 EST daily.

NORTH DAKOTA

§BISMARCK MUNI *IFR* 2 SE FSS: BISMARCK on Fld

1677 H69/12–30(3) (S–78, T–114, TT–190) BL4, 6, 8 S5 F4 JP4 U2 **RVV:** Rnwy 30

Remarks: Rnwys 17–35, 2–20 and E–W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to Indg acft. Rnwy 2 threshold displaced 530′ SW end. Rnwy 12 threshold displaced 817′ NW end.

Tower 118.3 122.5R **Gnd Con** 121.9

App Con 118.3

ILS 110.3 I–BIS Apch Brg 306° **LOM:** 215/BI

(L) BVORTAC 116.5/BIS 272° 3.6 NM to fld

RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB

DEVILS LAKE (L) BVOR 111.0/DVL FSS: GRAND FORKS

DICKINSON (H) BVORTAC 112.9/DIK FSS: DICKINSON

RBn BH[1] 308/DIK

Remarks: [1]VFR use only.

FARGO

§HECTOR FIELD *IFR* 2NW FSS: JAMESTOWN

900 H91/17–35(3) (S–90, T–120, TT) BL4,6, 8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35 **RVR:** Rnwy 35

Remarks: Arresting barriers rnwy 35.

Fargo Tower 118.3 122.5R **Gnd Con** 121.9

Fargo App Con 125.8 110.3T

VFR ADV Ctc App Con 25 mi out on 125.8

ILS 110.3 I–FAR Apch Brg 351° **LOM:** 219/FA

Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld

Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVOR 109.4 GFK FSS: GRAND FORKS

NORTH DAKOTA—*Continued*

JAMESTOWN (L) BVOR 114.5/JMS FSS: JAMESTOWN

MINOT (L) BVOR 117.1/MOT FSS: MINOT

Rng BMRLZ[1] 209/MT

Remarks: [1]Reliable reception distance 70 NM.

PEMBINA (H) BVORTAC 112.4/PMB FSS: GRAND FORKS

RED RIVER (H) VOR 116.7/RDR

RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN FSS: MINOT

OHIO

§AKRON MUNI *IFR* Adj SE AOE FSS: AKRON on Fld

1059 H53/7–25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2

REIL: Rnwys 7 and 25.

Remarks: Poles E. Obstn lgts inop SE hill apch rnwy 32. Rnwy 25 threshold displaced 511′ SW.

Tower 120.1 122.7R 110.9T **Gnd Con** 121.9

Radar Services:

Akron-Canton App Con 125.5 126.2 122.5R 109.5T

Akron-Canton Dep Con 118.6

ILS 110.9 I–AKR Apch Brg 246° **LOM:** 362/AKR

(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld

RBn MHW 362/AKR 246° 3.7 NM to fld.

Remarks: LOM is MHW.

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§AKRON-CANTON *IFR* 10SE FSS: AKRON

1228 H56/1–19(4) (S–120, T–160, TT–250) BL4,6,11 S5 F5, JP1 DT2 **RVR:** Rnwy 1 **REIL:** Rnwy 23

Remarks: U.S. Customs Indg rgts arpt. Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.

Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.7

Radar Services: (BCN)

App Con 125.5 126.2 122.5R 109.5T

Dep Con 118.6

ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400 Vsby 1 mi Min Alt 1628

ILS 109.5 I–CAK Apch Brg 006° **LOM:** 233/CA

Remarks: VOT: 115.4.

APPLETON (H) BVORTAC 116.7/APE FSS: COLUMBUS

ATHENS RBn MHW 206/UOA FSS: PARKERSBURG

ATTICA (L) BVORTAC 116.9/ATO FSS: MANSFIELD

BELLAIRE (L) BVORTAC 111.0/AIR FSS: WHEELING

BRECKSVILLE RBn MHW 326/BKI FSS: CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV FSS: AKRON

CHARDON (L) BVORTAC 109.8/CXR FSS: CLEVELAND

COVINGTON, KY. (CINCINNATI, OHIO)

§GREATER CINCINNATI *IFR* 9SW Cincinnati FSS: CINCINNATI

890 H86/18–36(2) (S–179, T–283, TT–500) BL4,6,8A,9,11 S5 F5 **REIL:** Rnwy 27 **RVR** Rnwy 18–36

Remarks: Fee. Twr unable to see various portions of fld.

Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7

Clrnc Del 121.3

ATIS 112.9

Radar Services:

Cincinnati App Con 124.7 119.7 126.2 122.7R

Cincinnati Dep Con 121.0

ASR Rnwys 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290. Rnwys 27 Ceil 700 Vsby 1 mi Min Alt 1590

ILS 109.9 I–CVG Apch Brg 360° **LOM:** 287/CV

111.5 I–SIC Apch Brg 180° **LOM:** 351/SI

OHIO—*Continued*

Cincinnati (L) VORTAC 112.9/CVG 043° 2.3 NM to fld

VHF/DF Ctc twr or radar.

Remarks: VOT: 108.4.

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§**CINCINNATI MUNI-LUNKEN FLD** ***IFR*** 3SE **FSS:** CINCINNATI on Fld 488 H61/2R–20L(4) (S–55, T–75 TT–167) BL4,6,8A,9 S5 F4, JP4 U2

Remarks: U.S. Customs Indg rgts arpt. Rnwy 2L threshold displaced 189′ NE. 4795′ avbl Indg rnwy 2L; tkoff rnwy 20R. 4984′ avbl Indg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 701′ SE. 3331′ avbl Indg rnwy 15; tkoff rnwy 33. 4032′ avbl tkoff rwy 15, Indg rnwy 33.

Lunken Tower 118.7 126.2 122.5R **Gnd Con** 121.9

Radar Services:

Cincinnati App Con 119.7 126.2 124.7 122.7R

Cincinnati Dep Con 121.0

ILS[1] 110.9 I–LUK Apch Brg 201°

Cincinnati Rng SABRAZ[2] 335/LUK 227° 4.3 NM to fld

Remarks: [1]Glide slope unusable beyond 11 NM below 2700′ MSL. BC unusable beyond 10 NM. [2]Reliable reception distance 60 NM.

CLEVELAND

§**BURKE LAKEFRONT** Adj N **FSS:** CLEVELAND (DL) 584 H52/6–24(1) (S–31, T–37, TT–55) BL 6 S5 F4, JP1 U2 DT2

Remarks: U.S. Customs Indg rgts arpt. Fee. Rgt tfc rnwy 24.

Lakefront Tower[3] 120.9 126.2 122.5R **Gnd Con** 121.9

Radar Services

Cleveland App Con 124.0[1] 122.7R 118.5[2]

Cleveland Dep Con 121.0

Remarks: [1]270°–089° [2]090°–269° [3]Oper 1100–0300Z.

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§**CLEVELAND-HOPKINS INTL** ***IFR*** 9SW AOE **FSS:** CLEVELAND on Fld 792 H90/5R–23L(5) (S–54, T–78, T–126)* BL4,6,8A,9,10,11 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27

REIL: Rnwy 36L.

Remarks: *(S-125, T–188, TT–338) avbl rnwy 9–27. Rnwy 23L apch restricted by fence. Rnwy 18L threshold displaced 493′S. 4522′ avbl Indg rnwy 18L; tkof rnwy 36R. 5015′ avbl Indg 36R, tkof rnwy 18L.

Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7

‡**Clrnc Del** 127.4

ATIS 112.0[5]

Radar Services: (BCN)

Cleveland App Con 124.0[1] 122.7R 118.5[2] 124.5[6] 110.7T 109.9T **Cleveland Dep Con** 121.0 124.5[6]

ASR Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292. Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.

ILS 109.9 I–CLE Apch Brg 055°

110.7 I–CEE[3] Apch Brg 278°

Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld

Cleveland RBn H–SAB 344●/CLE 070° 0.8 NM to fld

VHF/DF Ctc twr

Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]1000–0200Z. [6]For Cuyahoga County Arpt. **VOT:** 110.4.

CLINTON (T) VOR 113.2/ILN

RBn MHW 219/ILN

COLUMBUS, OHIO STATE UNIVERSITY RBn MHW 348/OSU

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§**COLUMBUS, PORT COLUMBUS INTL** ***IFR*** 6E AOE **FSS:** COLUMBUS on Fld 816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28L **REIL:** Rnwys 10R, 28R.

Remarks: *Rnwy 10L–28R (S–180, T–200, TT–400). Due non-vsby some areas of fld, ctc twr.

OHIO—*Continued*

Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.9

Clrnc Del 121.3

Radar Services: (BCN)

App Con 119.0 126.2 125.4 122.5R 109.5T

Dep Con 120.5 126.2

ASR Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.

Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.

ILS[1] 109.1 I–CBP Apch Brg 096° **LOM:** 271/CB

109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM

RBn BH 391/CMH 070° 1.0 NM to fld

Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM.

VHF/DF Ctc twr.

Remarks: **VOT:** 111.0

CUYAHOGA RBn MHW 275/CUC **FSS:** CLEVELAND

DAYTON

§**JAMES M COX-DAYTON MUNI** ***IFR*** 9N **FSS:** DAYTON on Fld 1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24

Remarks: U.S. Customs Indg rgts arpt. P-line SE. 1096′ twr 10NM S.

Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9

Clrnc Del 125.2

Radar Services: (BCN)

Dayton App Con 118.0 126.5 122.7R 111.6T 110.3T

Dayton Dep Con 125.9 119.9

ILS[1] 110.3 I–DAY Apch Brg 056° **LOM:** 356/DA

Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.

Remarks: VOT: 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI **FSS:** FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY **FSS:**FINDLAY

RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO **FSS:** FINDLAY

Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL **FSS:** CLEVELAND

HAMILTON RBn MHW 260/HAO **FSS:** CINCINNATI

HUBBARD RBn MHW 408/HBD **FSS:** YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN **FSS:** YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA **FSS:** FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK

MADEIRA RBn MHW 379/MDE

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§**MANSFIELD MUNI** ***IFR*** 3N **FSS:** MANSFIELD on Fld 1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32

Tower 119.3 122.5R 110.5T **Gnd Con** 121.9

App Con 124.7 122.5R 110.5T 108.8T

ILS 110.5 I–MFD Apch Brg 320° **LOM:** 374/MF

(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.

RBn MHW 374/MF 320° 4.0 NM to fld.

Remarks: LOM is MHW.

MARION RBn MHW 203/MNN **FSS:** MANSFIELD

MIDDLETOWN RBn MHW 239/MWO **FSS:** DAYTON

MONTGOMERY CO. (T) VORW 110.0/MGY **FSS:** DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW **FSS:** ZANESVILLE

PATTERSON (T) VOR 111.6/FFO

RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD **FSS:** DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY **FSS:** CLEVELAND

OHIO—*Continued*

§SPRINGFIELD MUNI *IFR* 5S **FSS:** DAYTON (LC FA 2-4562)
1049 H90/5-23(3) (S-190, T-200, TT-380) BL4 S5
F4, JP4
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245-2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM **FSS:** CLEVELAND

STRONGSVILLE (L) VOR 112.0/STG **FSS:** CLEVELAND

TIPP CITY RBn MHW 212/TPC **FSS:** DAYTON

TIVERTON (L) BVOR 116.5/TVT **FSS:** MANSFIELD

§TOLEDO EXPRESS *IFR* 9SW **FSS:** FINDLAY (LC 242-4171)
684 H87/7-25(2) (S-107, T-163, TT-287) BL5,6,8A,9 S5
F5, JP1, JP4 U2 **RVV:** Rnwy 7
Remarks: U.S. Customs lndg rgts arpt.
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084.
Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I-TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV **FSS:** TOLEDO

WILLOUGHBY
§LOST NATION *IFR* 2 N **FSS:** CLEVELAND (DL)
626 H50/9-27(2) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W. Rnwy 5 threshold displaced 200′ NE. 4800′ avbl lndg rnwy 5, twof rnwy 23.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°-089° [2]090°-269° [3]Oper 0230-1430Z.

§YOUNGSTOWN MUNI *IFR* 10 N **FSS:** YOUNGSTOWN on Fld
1196 H75/14-32(3) (S-116, T-160, TT-270) BL4, 6, 8A, 9
S5 F4 TP1 U2 **RVV:** Rnwy 32
Remarks: Rnwy 9-27 rnwy lgts inop. No acft over 10,000 lbs.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I-YNG Apch Brg 320° **LOM:** 338/YN
(L) BVORTAC 109.0/YNG 183° 4.1 NM to fld.
VHF/DF Ctc twr.

ZANESVILLE (L) BVORTAC 111.4/ZZV **FSS:** ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS
RBn HW 410/LTS

ARDMORE (L) BVORTAC 116.7/ADM **FSS:** ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO **FSS:** TULSA

BURNS FLAT (L) VOR 110.0/BFV

CLINTON RBn MHW 320/CSM

DUNCAN (L) BVOR 111.0/DUC **FSS:** ARDMORE

OKLAHOMA—*Continued*

GAGE (H) BVORTAC 115.6/GAG **FSS:** GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR **FSS:** HOBART

KINGFISHER (L) BVORTAC 114.2/IFI **FSS:** OKLAHOMA CITY

§LAWTON MUNI *IFR* 2 S **FSS:** WICHITA FALLS (LC EL5-1323)
1109 H54/17-35(1) (S-50, T-75, TT-135) BL4 S5 F5 JP1 U-2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.7R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230-0430Z.

McALESTER (L) BVORTAC 112.0/MLC **FSS:** McALESTER

MUSKOGEE RBn MHW 306/MKO

OKLAHOMA CITY
§WILEY POST *IFR* 7 NW **FSS:** OKLAHOMA CITY on fld
1303 H54/17-35(2) (S-15, T-20, TT-30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200-0400Z.

§WILL ROGERS WORLD *IFR* 6W **FSS:** OKLAHOMA CITY (LC SU9-7452)
1284 H98/17R-35L(4) (S-100, T-180, TT-350) BL4,6,8A,9,10,11
S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3-21 and txwy (C-1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr.
Tower 118.3 126.2R 122.7R 109.9T **Gnd Con** 121.9
ATIS: 109.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I-OKC Apch Brg 351° **LOM:** 219/OK
Oklahoma City (H) BVORTAC 115.0/OKC 098° 8.1 NM to rnwy 12.
Oklahoma City RBn H-SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM **FSS:** TULSA

OWASSO RBn MHW 317/DW **FSS:** TULSA

PAGE (L) BVOR 113.5/PGO **CS/T:** FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC **FSS:** PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO **FSS:** HOBART

STILLWATER (T) BVOR 108.4/SWO **FSS:** OKLAHOMA CITY (LC FR 2-4935)

TINKER AFB RBn HW 394/TIK

TULAKES RBn MHW 406/TWO **FSS:** OKLAHOMA CITY

§TULSA INTL *IFR* 5NE **FSS:** TULSA on Fld
674 H100/17L-35R(5) (S-50, T-75, TT-135)* BL4, 6, 8A, 9, 10
S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R

OKLAHOMA—*Continued*

Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy. *Rnwy 17R–35L: (S–100, T–200, TT–400).
Tower 118.7 122.5R **Gnd Con** 121.9
‡Clnc Del 121.2
ATIS[3] 114.4
Radar Services: (BCN)
App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7
Tfc Info Ctc App Con 25 mi out on 119.1
ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074
ILS 109.7 I–DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I–TUL[2] Apch Brg 355° **LOM:** 338/TU
(H) VORTAC 114.4/TUL 260° 4.3 NM to rnwy 26
RBn H–SAB 245●/TUL 220° 0.9 NM to fld.
Remarks: [1]500–1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL. Both systems not operd simultaneously. [3]Oper 1300–0300Z. **VOT:** 109.0.

§TULSA RIVERSIDE *IFR* 5S **FSS:** TULSA
624 H40/18–36(1) (S–50, T–60, TT–) BL4 S5 F4 U2
Remarks: Due non-vsby some areas of fld, ctc twr.
Tower:[1] 118.1 122.7R
Remarks: [1]Oper 1200–0400Z.

WOODRING (T) BVOR 109.0/ODG **FSS:** PONCA CITY

OREGON

ASTORIA (L) BVOR 114.0/AST **FSS:** HOQUIAM

BAKER (L) BVORTAC 115.3/BKE **FSS:** BAKER

CORVALLIS (L) BVOR 108.4/CVO **FSS:** EUGENE

EUGENE
§MAHLON-SWEET FLD *IFR* 7 NW **FSS:** EUGENE on Fld
365 H55/16–34(2) (S–80, T–120, T–190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16
Eugene Tower 118.9 122.5R **Gnd Con** 121.9
Eugene App Con 119.6 122.5R 112.9T 1095T
ILS 109.5 I–EUG Apch Brg 159° **LOM:** 227/EU
Eugene (L) BVORTAC 112.9/EUG on fld

HILLSBORO
PORTLAND-HILLSBORO *IFR* 2NE **FSS:** PORTLAND (DL)
204 H40/2–20(2) BL4 S5 DT2
Tower[1] 119.3 122.6R **Gnd Con** 121.7 122.6R
VFR ADV: Ctc Portland App Con
Remarks: [1]Oper 0600–2200 lcl time.

JOHN DAY (H) BVOR 115.6/JDA **FSS:** BAKER
Remarks: To be BVORTAC Oct 27

KLAMATH FALLS
§KINGSLEY FLD *IFR* 4 SE **FSS:** KLAMATH FALLS on Fld
4092 H103/14–32(3) (S–100, T–200, TT–380) BL4, 6,8A′, 9′ S5 F4, JP1 U2 DT2
Remarks: [1]Below FAA standards. 1000′ overrun N end, 750′ overrun S end rnwy 14–32.
Kingsley Tower 118.5 122.5R 269T **Gnd Con** 121.9
Radar Services: (BCN)
Klamath Falls App Con 119.4 122.5R
Klamath Falls Dep Con 124.1
Tfc Info Ctc App Con
ILS[1] 109.5 I–LMT Apch Brg 319° BC unusable **LMM:**269/MT
Klamath Falls (L) BVORTAC 115.9/LMT on fld
Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.

OREGON—*Continued*

Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV **FSS:** KLAMATH FALLS

§MEDFORD, JACKSON COUNTY *IFR* 2 N **FSS:** MEDFORD on Fld
1330 H54/14–32(2) (S–80, T–120, TT–180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVV:** Rnwy 14
Remarks: Ngt fueling delay and surcharge 1800–0730 lcl time. Rnwy 27 apch obstructed by logging trucks.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 119.8 110.3T 113.6T
ILS[1] 110.3 I–MFR Apch Brg 141° **LOM:** 394/MF
(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.
RBn SBH 263/MFR 161° 2.1NM to fld.
VHF/DF Ctc twr or FSS.
Remarks: [1]ILS not certified for automatic apchs. [2]VHF/DF coverage 40 NM at MEA excp 360–015°, 9000′; 015–030°, 10,000′; 030–057°, 11,000′; 120–210°, 13,500′; 315–350°, 8000′; 350–360°, 8500′; 057–075°, 30 NM at 11,000′; 075–120°, 30 NM at 13,500′; 210–225°, 30 NM at 12,000′; 225–250°, 30 NM at 10,500′.

NEWBERG (H) BVORTAC 117.4/UBG **FSS:** PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP **FSS:** EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH **FSS:** NORTH BEND
RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO **FSS:** BOISE

§PENDLETON MUNI *IFR* 2 NW **FSS:** PENDLETON on Fld
1493 H63/7L–25R(4) (S–70, T–100, TT–170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25
Remarks: Rnwy 25L threshold displaced 821′W. 2029′ avbl lndg rnwy 25L, 7R–25L dalgt operns only lgt planes.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 114.7T 341T
ILS 110.3 I–PDT Apch Brg 250° **LOM:** 236/PD
(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.
RBn SABH 341●/PDT 259° 1.7 NM to fld

§PORTLAND INTL *IFR* 4 NE **FSS:** PORTLAND on Fld
26 H88/10R–28L(3) (S–100, T–200, TT–400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R
Remarks: U.S. Customs lndg rgts arpt.
Tower 118.7 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1[2] 122.7R 126.2 119.8[3] 109.9T
Dep Con 124.9
Tfc Info Ctc App Con
PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226
ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726
Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826
ILS 109.9 I–PDX Apch Brg 098° BC restricted **LMM:** 201/DX
111.3 I–IAP Apch Brg 278° **LOM:** 383/IA
(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.
RBn SABH 332●/PDX 155° 2.9 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070–289°. [3]290–069°. **VOT:** 111.0.

§PORTLAND-TROUTDALE *IFR* Adj NW **FSS:** PORTLAND (DL)
36 H46/7–25(1) (Max 20) BL 4 S5 F4 U2 DT2
RVV: Rnwy 7
Remarks: Rnwy 7 threshold displaced 400′ E. 4241′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 500′W. 4141′ avbl lndg rnwy 25.
Troutdale Tower[1] 120.5 122.5R **Gnd Con** 121.7

OREGON—*Continued*

Radar Services:
Portland App Con 118.1[1] 119.8[2]
Portland Dep Con 124.9
Remarks: [1]070-289° [2]290-069°. [3]Oper 1500-0700Z.

REDMOND (L) BVORTAC 117.6/RDM **FSS:** REDMOND
RBn H-SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO **FSS:** BAKER

ROSEBURG (L) BVOR 108.2/RBG **FSS:** EUGENE

§SALEM-MCNARY FLD ***IFR*** 1 SE **FSS:** PORTLAND (DL)
207 H58/13-31(2) (S-50, T-75, TT-110) BL4, 6 S5 F4
U1 DT2 **RVV:** Rnwy 31
Remarks: Rnwy 16-34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins. Med Intensity apch lgts sys with sequence flashers rnwy 31.
ILS[1] 110.3 I-SLE Apch Brg 309° **LOM:** 266/SL
Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY **FSS:** PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS **FSS:** THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON ***IFR*** 3 NE
FSS: ALLENTOWN on Fld
388 H62/6-24(4) (S-55, T-76, TT-125) BL4,6,8A,9 S5
F4 JP1 U2 DT2 **RVR:** Rnwy 6
Remarks: 5210′ avbl lndg rnwy 24. Rnwy 14-32 open for ngt operm 2415′ btn threshold lgts plus 175′ of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9
Clrnc Del 121.9
Allentown App Con 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061° **LOM:** 400/AB
Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld
Allentown Rng SBMAZ[1] 321/AE 195° 2.5 NM to fld.
Remarks: [1]Reliable reception distance 40 NM.

ALTOONA (T) BVOR 108.8/AOO **FSS:** ALTOONA

AMBLER RBn MHW 275/ING **FSS:** PHILADELPHIA
Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD **FSS:** BRADFORD
RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP **FSS:** PITTSBURGH

CARROLLTOWN (L) BVORTAC 110.6/CLN **FSS:** ALTOONA

CLARION (L) BVOR 112.9/CIP **FSS:** DU BOIS

COATESVILLE RBn MHW 262/CVE **FSS:** PHILADELPHIA

CREEK RBn MHW 219/CRK **FSS:** PITTSBURGH

CRYSTAL LAKE RBn MHW 392/CYE **FSS:** WILKES-BARRE

DU BOIS RBn BH 356/DUJ **FSS:** DU BOIS

EAST TEXAS (L) BVORTAC 110.2/ETX **FSS:** ALLENTOWN

ELLWOOD CITY (H) BVORTAC 115.8/EWC **FSS:** PITTSBURGH

ERIE
§PORT ERIE ***IFR*** 5 SW .. **FSS:** ERIE on Fld
732 H50/6-24(3) (S-75, T-115, TT-) BL4, 6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **RVR:** Rnwy 6 **REIL:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt. P-lines S, E. Hiway W.
Erie Tower: 118.1 122.5R **Erie Gnd Con** 121.9
Erie App Con 119.0 118.4[1] 122.5R
ILS 110.3 I-ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

PENNSYLVANIA—*Continued*

FRANKLIN (L) BVOR 109.6/FKL **FSS:** YOUNGSTOWN
RBn MHW 233/FKL

§HARRISBURG-YORK STATE ***IFR*** 3 S **FSS:** HARRISBURG on Fld
347 H50/8-26(3) (S-65, T-105, TT-185) BL4, 6, 8A, 9 S5
F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26. Fence SE. Chimney SSW.
Harrisburg Tower 119.5 126.2 122.5R 109.1T
Gnd Con 121.9
Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447.
Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS[2] 109.1 I-HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMRAZ[1] 338/HR 118° 0.9 NM to fld.
Remarks: [1]Reliable reception distance 40 NM. [2]Lclzr crs vagaries and/or flag indications may be encountered below 6000′ MSL beyond 10 NM when more than 15° S lclzr crs.

HAZELTON (T) BVOR 109.4/HZL **FSS:** WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200-2400Z by City.

IMPERIAL (L) BVORTAC 109.4/IRL **FSS:** PITTSBURGH

INDIANA RBn MHW 242/INP **FSS:** ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/IHD **FSS:** MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST **FSS:** ALTOONA

KEATING (L) BVOR 114.7/ETG **FSS:** PHILIPSBURG

§LANCASTER ***IFR*** 5N **FSS:** HARRISBURG (LC 392-0881)
403 H50/8-26(2) (S-77, T-107, TT-) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
Rbn MHW 326/LRP
Remarks: [1]Oper 1200-0400Z.

LATROBE (T) VORW 108.2/LBE **FSS:** PITTSBURGH

MCKEESPORT RBn MHW 287/MKP **FSS:** PITTSBURGH

MILTON (L) BVORTAC 109.2/MIP **FSS:** WILLIAMSPORT

PHILADELPHIA
§ NORTH PHILADEPHIA ***IFR*** 10 NE **FSS:** PHILADELPHIA on Fld
120 H50/6-24(2) (S-120, T-200, TT-) BL4, 6, 12 S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]270-089° [2]090-269°

§PHILADELPHIA INTL ***IFR*** 5 SW **FSS:** PHILADELPHIA (DL)
14 H95/9-27 (3) (S-120, T-200, TT-400) BL4, 6, 8A, 9 S5
F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: U.S. Customs lndg rgts arpt. Fence E, NE. Constr vcnty rnwy 27.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
PAR[3] Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 214

PENNSYLVANIA—*Continued*

ILS 109.3 I–PHL Apch Brg 085°. **LOM:** 237/PH

VHF/DF Ctc twr.

Remarks: [1]270–089°. [2]090–269°. [3]Radar monitoring of instrument apchs only at pilots req. To be decmsnd Nov. 15. **VOT:** 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB **FSS:** PHILIPSBURG

RBn MHW 236/PSB

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PITTSBURGH

§ALLEGHENY COUNTY ***IFR*** 4 S **FSS:** PITTSBURGH on Fld

1252 H55/9–27(3) (S–70, T–120, TT–210) BL6, 8A, 9, 11 S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30 **RVR:** Rnwy 27

Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.

Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7

Radar Services: (BCN)

Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]

Pittsburgh Dep Con 125.9

ILS 109.1 I–AGC Apch Brg 275° BC unusable

(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld

RBn H–SAB 254●/AGC 082° 2.0 NM to fld

Remarks: [1]270–089° [2]090–269°

§GREATER PITTSBURGH ***IFR*** 12 NW **FSS:** PITTSBURGH (DL)

1203 H105/10L–28R(4) (S–120, T–200, TT–400)

BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32

Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. U.S. Customs lndg rgts arpt.

Pittsburgh Tower 119.1 126.2 122.7R 110.3T

‡Clrnc Del 121.3 **Gnd Con** 121.9

Radar Services: (BCN)

Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]

Pittsburgh Dep Con 125.9

Tfc Info Ctc Radar App Con on 124.15 when approaching from NW & NE, and on 118.7 from SE & SW.

PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1403

ASR Rnwys 5, 14, 28, 32 Ceil 500 Vsby 1 mi Alt 1703

Rnwy 10L, 10R, 28L Ceil 400 Vsby 1 mi Min Alt 1603.

ILS 110.3 I–GPB Apch Brg 277° BC unusable **LOM:** 323/GP 111.7 I–LXB Apch Brg 097° BC unusable.

VHF/DF Ctc twr.

Remarks: [1]270–089° [2]090–269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POTTSTOWN (L) BVORTAC 116.5/PTW **FSS:** PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING

§GENERAL SPAATZ FIELD ***IFR*** 2NW **FSS:** HARRISBURG (LC 376–3045)

343 H51/18–36(3) (S–30, T–45, TT–175) BL4, 6, 7, 12 S5 F4, JP4 U2 DT2

Remarks: Rgt tfc rnwys 5, 13, and 36.

Reading Tower 126.2 119.9 122.5R 109.5T

Gnd Con 121.9

Reading App Con 119.9 122.5R 109.5T

ILS 109.5 I–RDG Apch Brg 001° BC unusable **LOM:** 269/RD

VHF/DF Ctc twr.

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

PENNSYLVANIA—*Continued*

TOBYHANNA RBn MHW 410/TSD

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** PHILADELPHIA

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§WILKES-BARRE-SCRANTON ***IFR*** 9 NE **FSS:** WILKES-BARRE on Fld

956 H52/4–22 (3) (S–100, T–140, TT–) BL4–6,8A,9 F5, JP4 DT2 **RVV:** Rnwy 4

Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.

FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.

Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9

Radar Services: (BCN)

Wilkes-Barre App Con 124.5 122.5R 109.9T

Wilkes-Barre Dep Con 126.3

ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956

Rnwy 10,22 Ceil 900 Vsby 1 mi Min Alt 1856

ILS[1] 109.9 I–AVP Apch Brg 043° BC unusable **LOM:** 257/AV

Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.

Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

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§WILLIAMSPORT-LYCOMING CO ***IFR*** 4 E **FSS:** WILLIAMSPORT on Fld

528 H50/9–27 (3) (S–40, T–60, TT–) BL4,6,8A,9 S5 F4, JP1 DT2

Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15–33 open to acft 12,500 lbs and under. Rnwy 12–30 (Max–200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW.

Williamsport Tower 119.1 122.5R

Williampsort Gnd Con 121.9

Williampsort App Con 124.9 122.5R

ILS 110.1 I–IPT Apch Brg 266° BC unusable **LMM:** 281/PT

Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO

PROVIDENCE

§GREEN ***IFR*** 6 S **FSS:** PROVIDENCE on Fld

56 H54/5R–23L(4) (S–94.5, T–143, TT) BL5,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 5R

Remarks: U.S. Customs lndg rgts arpt. Fee. No mult engine lndgs 5L, no tkofs 23R.

Providence Tower 120.7 122.5R 109.3T 368T

Gnd Con 121.9

Clrnc Del 121.9

Radar Services: (BCN)

Quonset App Con 118.6 134.1 120.1

Quonset Dep Con 124.5 126.2 123.8

ILS 109.3 I–PVD Apch Brg 046° BC unusable **LOM:** 368/PV

Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

ANDERSON (L) BVORTAC 108.6/AND **FSS:** ANDERSON

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§CHARLESTON AFB/MUNI ***IFR*** 9 NW **FSS:** CHARLESTON on Fld

45 H90/15–33 (2) (S–100, T–140, TT–250) BL4,6,8A,9,10 S5 F5 JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15

Remarks: U.S. Customs lndg rgts arpt.

Tower 121.0 122.5R 126.2 113.5T[2] 109.7T **Gnd Con** 121.9

Clrnc Del 121.7

ATIS[1] 113.5

SOUTH CAROLINA—*Continued*

Radar Services:
App Con 119.3 118.5 113.5T[2] 109.7T
Dep Con 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.
PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445
Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245
Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445
ILS[1] 109.7 I-CHS Apch Brg 149° BC unusable **LOM:** 329/CH
(H) VORTAC 113.5/CHS on fld.
RBn H-SAB 329●/CH
VHF/DF Ctc FSS
Remarks: LOM is H-SAB. [1]To be comsnd. [2]To be decmsnd.
VOT: 111.0.

CHESTERFIELD (L) BVOR 108.2/CTF FSS: FLORENCE

COLUMBIA
§COLUMBIA METROPOLITAN *IFR* 5SW
FSS: FLORENCE (LC 256-1506)
236 H75/10-28(2) (S-45, T-130, TT-270)* BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10
Remarks: *Rnwy 5-23 (S-45, T-170, TT-320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.
Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
App Con 118.2 122.5R 110.3T
ILS 110.3 I-CAE Apch Brg 107° BC unusable **LOM:** 326/CA
(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.

§OWENS FIELD 1SE FSS: FLORENCE (LC 256-1506)
203 H36/15-33(2) (S-30) L4 S5 F4 U1
Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.
Tower[1] 126.2 122.5R
Columbia App Con 118.2 122.5R 110.3T
Remarks: [1]AAS—Oper weekdays 1230-1630Z and 1745-2115Z. Sats 1230-1600Z.

CONWAY RBn HW 269/MTL

FLORENCE (H) BVORTAC 115.2/FLO FSS: FLORENCE

FORT MILL (L) BVORTAC 112.4/FML FSS: HICKORY

GREENVILLE
§GREENVILLE MUNI DOWNTOWN *IFR* 2 E FSS: GREER
1047 H54/18-36 (3) (S-21, T-30, TT-60) BL4,6 S5 F4, JP1 U2
Remarks: Rgt tfc rnwys 18, 27, 23.
Tower[2] 119.9 126.2 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.0 124.3 122.5R 119.4 109.7T
Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.
ILS[1] 109.7 I-GRL Apch Brg 002° BC unusable **LOM:** 272/GR
Remarks: [1]Glide slope unusable below 1347′ MSL. ILS monitored electronically 0400-1200Z. [2]Oper 1200-0400Z.

GREENWOOD (L) BVORTAC 114.9/GRD FSS: ANDERSON

GREER
§GREENVILLE-SPARTANSBURG *IFR* 3 S FSS: GREER on Fld
972 H76/3-21 (2) (S-120) BL6,8A,9, 14,15 S5 F5, JP5 U2
RVR: Rnwy 3
Remarks: Fee commercial only.
Greer Tower 120.1 126.2 122.7R 115.7T 109.3T
Gnd Con 121.8
Radar Services: (BCN)
Greenville App Con 118.0 124.3 122.5R 119.4 109.7T
Greenville Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.

SOUTH CAROLINA—*Continued*

ILS 109.3 I-GSP Apch Brg 033° **LOM:** 287/GS
VHF/DF Ctc FSS.

MYRTLE BEACH (L) BVORTAC 117.6/CRE FSS: FLORENCE

SHAW AFB RBn HW 375/SW

§SPARTANSBURG DOWNTOWN MEMORIAL *IFR* 2SW
FSS: GREER (LC 585-5470)
816 H52/4-22(3) (S-56) BL4, 6 S5 F5, JP1, JP5
Tower[1] 118.3 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Greenville App Con 124.3
Greenville Dep Con 118.8
(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H-SAB 248●/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100-0300Z.

VANCE (L) BVOR 110.4/VAN FSS: CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR FSS: ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR FSS: PIERRE

ELLSWORTH (L) BVOR 110.8/RCA

HURON
§HOWES MUNI *IFR* 1NW FSS: HURON on Fld
1287 H51/12-30(2) (S-50, T-75, TT-132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17-35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 I-HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM FSS: DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE FSS: HURON
Remarks: VFR use only.

PHILIP (L) BVOR 108.4/PHP FSS: PIERRE

PIERRE (L) BVORTAC 112.5/PIR FSS: PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

§RAPID CITY MUNI *IFR* 8SE FSS: RAPID CITY on fld
3181 H62/14-32(2) (S-63, T-85, TT-140) BL6,11 S5 F4 U2 JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld.
RBn SABH 254●/RAP 102° 1.7 NM to fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300-0500Z.

SIOUX FALLS
§JOE FOSS FIELD *IFR* 2NW FSS: HURON (DL)
1428 H90/3-21(3) (S-85, T-120, TT-220) BL4,6,8A,9,11 S5 F5 JP1 U2 **RVV:** Rnwys 3, 21 **RVR:** Rnwy 3. **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9-27 clsd acft over 30,000 lbs.
Foss Tower 118.3 122.5R **Gnd Con** 121.9

SOUTH DAKOTA—*Continued*

Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 I–FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

WATERTOWN (L) BVORTAC 116.6/ATY **FSS:** WATERTOWN

WINNER (L) BVOR 112.8/ISD **FSS:** PIERRE

YANKTON (L) BVOR 111.4/YKN **FSS:** HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW **FSS:** TRI-CITY on Fld
1519 H66/4–22(2) (S–95, T–125, TT–215) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 119.5 126.2
ILS[1] 109.9 · I–TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 700 Vsby 3/4 mi Min Alt 2219
Remarks: [1]Glide slope unusable below 2219′ MSL. Lclzr unusable above 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME **FSS:** MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E **FSS:** CROSSVILLE (LC 267–5343)
682 H62/2–20(2) (S–90, T–120, TT–) BL4,6,8A,9,10 S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanoga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I–CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn HW 341/CQN 196° 7.7 NM to fld.
Remarks: [1]016–196° [2]197–015° Glide slope unusable below 885′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV **FSS:** NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV **FSS:** CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR **FSS:** DYERSBURG

GRAHAM (L) BVOR 111.6/GHM **FSS:** NASHVILLE

HIGHWAY (L) BVOR 108.4/HIY **FSS:** CROSSVILLE

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE
§McGHEE-TYSON *IFR* 11S **FSS:** KNOXVILLE on Fld
989 H90/4L–22R(3) (S–84, T–90, TT–200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9

TENNESSEE—*Continued*

Radar Services: (BCN)
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I–TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H–SAB[1] 281●/TYS 200X 2.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]AB 1000–0300Z. **VOT:** 112.0.

McKELLER (T) BVOR 112.0/MKL **FSS:** JACKSON

§MEMPHIS METROPOLITAN *IFR* 3S **FSS:** MEMPHIS on Fld
331 H89/9–27(4) (S–105, T–150, TT–240)* BL4,6,8A,9,10,15 S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwy 3–21 & 14–32 (S–100). *Rnwy 17–35. (S–110, T–150, TT–270). 3816′ avbl lndg & tkoff both directions rnwy 14–32. 1088′ (1340′ MSL) twr 9 NM NNE. 1078′ (1333′ MSL) twr 10 NM NE. 1077′ (1349′ MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 118.3 126.2 122.5R 115.5T 110.5T 109.5T
Gnd Con 121.9
ATIS 121.0
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I–MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I–TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn H–SAB 371●/TS 354° 4.7 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]087–267° [2]268–086° [3]Glide slope unusable below 400′ MSL. [4]LOM is Brooks MHW. [5]LOM is H–SAB. [6]Glide slope unusable below 350′ MSL. **VOT:** 111.0

§NASHVILLE METROPOLITAN *IFR* 5SE **FSS:** NASHVILLE on Fld
597 H80/13–31(3) (S–76, T–130, TT–220) BL4,6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 2L
Remarks: Rnwy 2R–20L–240′ overrun N end; 1185′ S end; rnwy 2L–20R–1065′ overrun S end; rnwy 13–31–1000′ overrun SE and NW end. 1368.5′ (2049′ MSL) twr 8.5 NM W. 1179′ (2049′ MSL) 9 NM NNW.
Berry Tower 119.1 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I–BNA Apch Brg 016° **LOM:**304/BN
Nashville (H)BVORTAC 114.1/BNA 313° 4.5 NM to fld.
Nashville RBn H–SAB[2] 304●/BN 016° 5.0 NM to rnwy 2L.
VHF/DF Ctc twr.
Remarks: [1]Main 1200′ til 2 mi from end of rnwy on final to rnwy 20R. LOM is H–SAB. [2]AB 0500–2200. **VOT:** 112.0.

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 275/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT **FSS:** KNOXVILLE

TEXAS

§ABILENE MUNI ***IFR*** 3SE **FSS:** ABILENE on Fld
1778 H60/17-35(2) (S-70, T-89, TT-145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35
Remarks: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc transmit 122.5 and receive 124.1 mc 20 mi out.
Tower[1] 120.1 126.2 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0
Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB
(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.
Remarks: [1]Opers 0600–2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

§AMARILLO AFB/MUNI ***IFR*** 8E **FSS:** AMARILLO on Fld
3605 H135/3-21(2) (S-65, T-330, TT-470) BL6,8A,9,10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21
Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100′ MSL. Overhead tfc ptn 5400′ MSL. Rnwy 13–31 lmtd to 33,000 lbs GWT.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T
Dep Con 119.5
Tfc Info Ctc App Con 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005. Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105
ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM
(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.
RBn SABH 251●/AMA 109° 1.3 NM to fld.
Remarks: [1]Glide slope unusable below 3905′ MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN
§MUELLER MUNI ***IFR*** 2NE **FSS:** AUSTIN on Fld
632 H73/12R-30L(5) (S-74, T-100, TT-159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVR:** Rnwy 30L
Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844′ SE. 6400′ avbl lndg rnwy 12R. Rnwy 16R threshold displaced 589′ S. 4406′ avbl lndg rnwy 16R. 1137′ (2049′ MSL) twr 5 NM W. 1199′ (2049′ MSL) twr 7 NM W.
Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Austin App Con 124.9 118.8 122.7R 112.5T
Austin Dep Con 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
Tfc Info Contact App Con 25 mi out on 118.8.
ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU
Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.
Austin RBn MHW 353/AU 305° 4.8 NM to fld.
Remarks: LOM is MHW.

BEAUMONT RBn MHW 368/BEM **FSS:** BEAUMONT

BEAUMONT-PORT ARTHUR
§JEFFERSON CO ***IFR*** 9SE **FSS:** BEAUMONT on Fld
16 H57/11-29(3) (S-65, T-91, TT-170)* BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16
Remarks: *Rnwy 16–34 (S-83, T-118, TT-212).
Tower 119.5 122.5R **Gnd Con** 121.9
Beaumont App Con 121.3 122.5R 114.9T

TEXAS—*Continued*

ILS 109.5 I-BPT Apch Brg 114° **LOM:** 257/BP
Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.

BEEVILLE **FSS:** ALICE
§CHASE (NAAS) FLD 45E
186 H80/13R-31L(3) BL4,6,7
Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.
Tower: 134.1 126.2

BENBROOK (L) VORW 108.8/BEO

BERGSTROM (L) VORW 109.8/BSM
RBn HW 293/BSM

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326●/BGS

BORGER (L) BVOR 108.6/BGD

BRAZOS SANTIAGO RBn HW 314/PIL **FSS:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE
§RIO GRANDE VALLEY INTL ***IFR*** 4E AOE **FSS:** BROWNSVILLE on Fld 22 H74/13R-31(5) (S-26, T-50, TT-87)* BL4,6,7 S5 F5, JP1 JP4 U2
Remarks: Brush apch 31L. Trees apch rnwy 35R. *Rnwy 17R-35L: (S-35, T-56, TT-108). Rnwys 8–26 and 4–22 do not meet air carrier standards for day/ngt operns. No lgts rnwys 13R-31L and 8–26.
Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I-BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 111.4/ARO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHASE (H) VOR 116.6/NIR

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION
§EASTERWOOD FIELD ***IFR*** 2SW **FSS:** COLLEGE STATION on Fld
319 H51/10-28(3) (S-30, T-40, TT-) BL4 S3 F4 JP1
Remarks: Services offered dalgt hrs only.
Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9
College Station App Con[2] 118.5 126.2
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: [1]Oper 1200–0400Z. [2]App Con from Houston ARTCC 0400–1200Z.

CONNALLY RBn MHW 400/CNW

§CORPUS CHRISTI INTL ***IFR*** 5W **FSS:** ALICE (LC TU 4-5712)
43 H56/13-31(2) (S-96, T-108, TT-152) BL4,6,8A,9 S5 F4, TP-1 JP4 U2 **RVV:** Rnwy 13
Remarks: Amber flashing lgt for rgt ptn. US Customs-lndg rts arpt 0800–1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I-CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

TEXAS—*Continued*

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS

§ADDISON *IFR* 9N **FSS:** DALLAS (LC FL2–8491)
643 H52/15–33(2) (S–50, T–70, TT–120) BL4 S5 F5 JP1 U2
REIL: Rnwy 15
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°–307° [2]308°–126°.

§DALLAS LOVE FIELD *IFR* 5NW **FSS:** DALLAS on Fld
485 H88/13R–31L(3) (S–100, T–150, TT–350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R
RVR: Rnwy 13L
Remarks: U.S. Customs lndg rgts arpt 0030–1430 Mon-Fri, 0030–1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[3] 125.2 125.8[2] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I–DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°–307° [3]308°–126° [4]Glide slope unusable below 677′ MSL due roughness. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request **VOT:** 111.0

§RED BIRD *IFR* 6SW **FSS:** DALLAS (LC FL2–8491)
660 H44/13–31(2) (S–35, T–60, TT–110) BL4 S5 F4, JP1 U2
Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8[1] 119.8[2] 125.2 122.5R 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°–307° [2]308°–126° [3]Oper 1200–0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

DYESS (L) VOR 109.2/DYS
RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

§EL PASO INTL *IFR* 4NE (AOE) **FSS:** EL PASO on Fld
3956 H120/4–22(3) (S–95, T–156, TT–280) BL4,5,6,8A,9,11 S5 F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26
Remarks: Rnwy 4 threshold displaced 1000′ NE. 11,000′ avbl lndg rnwy 4. Rnwy 17 threshold displaced 395′ S. 6606′ avbl lndg rnwy 17.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
Dep Con 119.1
Tfc Info: Expanded radar service avbl
ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I–ELP Apch Brg 218° **LOM:** 266/EL
(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.
RBn H–SAB 242●/ELP 258° 3.2 NM to fld.
Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH

§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE **FSS:** FORT WORTH (DL)
568 H90/17–35(2) (S–83, T–120, TT–210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13
Remarks:1074′ (1679′ MSL) twr 10.5 NM WSW.
Southwest Tower 120.5 126.2 122.7R **Gnd Con** 121.8
Radar Services:
Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T
Fort Worth Dep Con 123.9 122.7R
Tfc Info Ctc App Con 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I–GSW Apch Brg 129° **LOM:** 219/GS
Greater Southwest (L) BVORTAC 110.6/GSW at fld.
VHF/DF[1] Ctc twr.
Remarks: [1]VHF/DF inop til Oct 27. **VOT:** 111.8.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld
692 H52/17–35(3) (S–60, T–80, TT–) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17
Remarks: P-line SE.
Tower[1] 118.3 126.2 122.7R **Gnd Con** 121.9
Radar Services:
Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T
Fort Worth Dep Con 123.9 122.7R
ILS 109.9 I–FTW Apch Brg 174° **LOM:** 365/FT
Fort Worth RBn H–SAB[2] 365●/FT 174° 3.5 NM to rnwy 17
Remarks: [1]Oper 1300–0500Z. Wea bcsts discontd 2400–0500 excp forecast. LOM is H–SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON
RBn HH–SAB[1] 206●/GLS
Remarks: [1]Ctld by Houston FSS.

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK

GREENVILLE

§MAJORS FIELD *IFR* 4SE **FSS:** DALLAS
544 H80/17–35(2) S–26, T–50, TT–) BL4 S5 F4
Remarks: Rgt tfc rnwy 17.
Tower[1] 121.3 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 1330–2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE

HOOD (L) VORW 111.8/HLR
RBn MHW 347/HLR

TEXAS—*Continued*

HOUSTON

§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld
48 H76/3–21(3) (S–75, T–107, TT–185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12
Remarks: U.S. Customs Indg rgts arpt 0800–1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12–30, 3–21 not usable for Indgs or taxg acft; usable rnway pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del: 127.6
ATIS 119.7
Radar Services:
App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T
Dep Con 120.2 126.2
Tfc Info. Expanded radar service avbl.
ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448 Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548
ILS 109.9 1–HOU Apch Brg 036° **LOM:** 251/HO
Houston (H) BVORTAC 115.9/HOU on fld.
VHF/DF Ctc twr.
Remarks: [1]218°–008° [2]009°–217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/IDU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN
1515 H63/17–35(1) L4,11 U1 **REIL:** Rnwy 35
Tower[1] 126.2
Radar Services:
Austin App Con 124.9 118.8 122.7R
Austin Dep Con 120.8
RBn MH 393/JCY 346° 2 NM to fld.
Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (H) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

KELLY (L) VORW 113.8/SKF
RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI

§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2–3612)
524 H49/15–33(1) (S–25, T–37, TT–) BL4 S3 F4 U1
Remarks: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T.
VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.
(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.

LAUGHLIN (L) VOR 114.4/DLF
RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FSS:** SAN ANTONIO

LEONA (L) BVORTAC 110.8/LOA **FSS:** COLLEGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

LONGVIEW

§GREGG COUNTY MUNI *IFR* 6SE **FSS:** GREGG COUNTY on Fld
365 H61/17–35(3) (S–75, T–100, TT–) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13
Tower 118.9 122.5R **Gnd Con** 121.9
ILS 109.5 I–GGG Apch Brg 127° **LOM:** 410/GG
Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

§LUBBOCK MUNI *IFR* 4NE **FSS:** LUBBOCK on Fld
3269 H85/17R–35L(5) (S–90, T–150, TT–250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R
Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl Indg rnwy 35L. Clsd to tactical mil jet acft.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 125.8 112.9T 109.5T 110.8T
Dep Con 119.3
Tfc Info: Ctc App Con 25 mi out.
ASR [1]Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Alt 3669
ILS 109.5 I–LBB Apch Brg 169° **LOM:** 219/LB
(L)BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12
Remarks: [1]Oper 1200–0400Z.

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI
Remarks: Opers 1415–2215Z

McALLEN

§MILLER INTL *IFR* 2S (AOE) **FSS:** McALLEN on Fld
106 H49/13–31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13
Remarks: Rnwy 31 threshold displaced 542′ NE.
McAllen Tower [1]118.9 122.5R **Gnd Con** 121.9
McAllen App Con 118.9
Brownsville App Con[2] 119.5 126.2 118.1
McAllen (L) BVOR 109.8/MFE on fld
Remarks: [1]Oper 1200–0400Z. [2]Oper 0400–1200Z.

§MIDLAND AIR TERMINAL *IFR* 8SW **FSS:** MIDLAND on Fld
2870 H83/10–28(4) (S–100, T–128, TT–280) BL4,6,8A,9 S5 F5,JP2 U2 **RVV:** Rnwy 10
Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl Indg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl Indg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl Indg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
App Con 121.1 122.5R 114.8T 110.3T
ILS 110.3 I–MAF Apch Brg 103° **LOM:** 344/MA
(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.
VHF/DF Ctc FSS

MINERAL WELLS (H) BVORTAC 117.7/MWL **FSS:** MINERAL WELLS
RBn BMH 284/MWL

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CORPUS (L) VORW 109.2/NGP
RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PERRYTON RBn MHW 266/PYX **FSS:** GAGE
Remarks: VFR use only.

PLAINVIEW

§HALE COUNTY *IFR* 1S **FSS:** AMARILLO (LC CA 3–2148)
3372 H52/4–22(2) (S–30, T–40, TT) BL4 S5 F4 U2
Remarks: Hangar NE.
Plainview Tower[1] 118.9 122.5R **Gnd Con** 121.7
Lubbock App Con 118.1 126.2 112.9T
Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.
Remarks: [1]Oper 1200–0400Z.

TEXAS—*Continued*

QUITMAN (L) VORW 114.0/UIM FSS: TYLER

RANDOLPH RBn HW 359/RND

ROCKSPRINGS (L) BVORTAC 111.2/RSG FSS: SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI FSS: BEAUMONT

SALT FLAT (L) BVORTAC 113.0/SFL FSS: EL PASO

SAN ANGELO

§MATHIS FIELD *IFR* 7SW . FSS: SAN ANGELO on Fld
1915 H59/3–21(3) (S–35, T–56, TT–) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3
Remarks: Rnwy 9–27 clsd to acft over 25,000 lbs GWT.
Tower 118.3 122.5R **Gnd Con** 121.9
San Angelo App Con 119.2 118.3 122.5R 115.1T 109.7T
ILS 109.7 I–SJT Apch Brg 033° **LOM:** 356/SJ
San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

§SAN ANTONIO INTL *IFR* 7N FSS: SAN ANTONIO on Fld
808 H85/12–30(3) (S–150, T–225, TT–300) BL4,6,8A,9 S5 F4, JP1 U2 **RVR:** Rnwy 3, 12
Remarks: U.S. customs lndg rgts arpt 1000–2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′. Rnwy 3–21 usable length 4519′.
Tower 118.9 122.5R **Gnd Con** 121.9
Clrnc Del 127.3
Radar Services:
App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 12, 21, 30, Ceil 400 Vsby 1 mi Min Alt 1208 Min Alt 1208
ILS 110.9 I–ANT Apch Brg 123° BC unusable **LOM:** 305/AN
109.7 I–SAT Apch Brg 032° **LOM:** 219/SA
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
VHF/DF Ctc twr.
Remarks: **VOT:** 110.4.

SAN ANTONIO

§STINSON MUNI *IFR* 5S FSS: SAN ANTONIO (LC TA 6–9575)
577 H48/9–27(3) (S–40, T–75, TT–) BL5 S5 F4
Remarks: Tfc 800′ above terrain 1367′ MSL. Rnwy 14 threshold displaced 600′ SE; rnwy 32–400′ NW.
Tower[1] 119.5 122.7R **Gnd Con** 121.7
Radar Services:
San Antonio App Con 120.3 134.1 126.5 126.2R 122.7R
San Antonio Dep Con 123.9
Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld
Remarks: [1]Oper 1300–0500Z.

SEGUIN RBn HW 371/UCT
Remarks: VFR only. Opers daylight hours Mon-Fri.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR FSS: DALLAS

TANK RBn BH 388/DDA FSS: DALLAS

TEMPLE (L) BVOR 110.4/TPL FSS: WACO

TEXICO (H) BVORTAC 112.2/TXO FSS: TUCUMCARI

TRADEWIND RBn MHW 338/AM FSS: AMARILLO

TYLER

§POUNDS FIELD *IFR* 4W FSS: TYLER on Fld
544 H52/13–31(3) (S–40, T–60, TT–100) BL5,6,8A,9 S5 F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl lndg rnwy 17.

TEXAS—*Continued*

Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I–TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT FSS: PALACIOS (512) 445–1281

§WACO MUNI *IFR* 5NW FSS: WACO on Fld
515 H57/18–36(3) (S–26, T–38, TT–)* BL4,6,8A,9 S5 F5 U2 **RVV:** Rnwy 18
Remarks: *Rnwy 14–32 (S–57, T–68, TT–104) Rnwy 5 threshold displaced 453′ E. Usable length rnwy 23–5500′; rnwy 5–5049′.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 115.3T
Dep Con 125.4
ILS 109.7 I–ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS

§SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5N FSS: WICHITA FALLS on Fld
1015 H131/15–33(2) (S–65, T–300, TT–530) BL4,6,8A,9,10 S5 F4, JP1 JP5 U2 **VASI:** Rnwy 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700′ rectangular tfc ptn 2200′ MSL. Rgt tfc rnwys 17 & 33. Rnwy 17–35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Wichita Falls App Con 118.2 122.5R 109.7T
Wichita Falls Dep Con 118.2
ILS 109.7 I–SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.8 NM to rnwy 33.
VHF/DF Ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK FSS: WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL FSS: SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE FSS: BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC FSS: CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA FSS: SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG

HANKSVILLE (H) BVORTAC 115.9/HVE FSS: CEDAR CITY

LA SAL (L) BVORTAC 112.9/LXL FSS: GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU FSS: SALT LAKE CITY

MILFORD (H) BVORTAC 112.1/MLF FSS: CEDAR CITY

MYTON (L) BVORTAC 117.9/MTU FSS: GRAND JUNCTION

§OGDEN MUNI *IFR* 3SW FSS: SALT LAKE CITY (LC 394–8712)
4455 H73/3–21(3) (S–100, T–160, TT–280) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000′ NE end. 6300′ avbl lndg day/nt rnwy 21 and tkof rnwy 3. Rnwy 25 threshold displaced 476′ E end. 5123′ avbl lndg rnwy 25, tkof rnwy 7; 5599′ avbl lndg rnwy 7 and tkof rnwy 25.
Tower[1] 118.7 122.5R ~~121.5~~ **Gnd Con** 121.7

UTAH—*Continued*

Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1
Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
VHF/DF Ctc FSS and twr.
Remarks: [1]Oper 1300–0500Z.

PROVO (H) BVORTAC 116.6/PVU **FSS:** SALT LAKE CITY (LC 374–6327)

§SALT LAKE CITY MUNI NO. 1 *IFR* 4W **FSS:** SALT LAKE CITY on Fld
4226 H100/16R-34L(2) (S–100, T–150, TT–240)
BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: *Rnwy 16L–34R (S–100, T–150, TT–300). Rnwy 14–32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500–2330Z Mon-Fri. No service holidays.
Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
ATIS: 109.5
Radar Services: (BCN)
Salt Lake App Con 120.9 122.7R 116.8T 109.5T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I–SLC Apch Brg 339° **LOM:** 239/SL
(H) BVORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF[1] Ctc FSS
Remarks: [1]VHF/DF unusable 350–140°, 170–225° beyond 15 NM at MOCA. **VOT:** 111.0

VERNAL (L) BVOR 108.2/VEL **FSS:** GRAND JUNCTION

VERMONT

§BURLINGTON MUNI *IFR* 2E AOE **FSS:** MONTPELIER (LC 878–3393)
335 H78/15–33(2) (S–62, T–110, TT–195) BL5,6,8A,9 S5 F5, JP1, JP4 U2 DT2 **RVV:** Rnwys 15 and 33
Tower 118.3 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 122.5R 110.3T
Dep Con 119.2
ILS 110.3 I–BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H–SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF Ctc twr
Remarks: **VOT:** 109.0.

MONTPELIER (L) BVOR 108.2/MPV **FSS:** MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK **FSS:** MONTPELLER

RUTLAND RBn MHWZ 391/RUT **FSS:** GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD **FSS:** LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA **FSS:** BLUEFIELD

BLACKSTONE RBn MHW 326/BKT **FSS:** BLACKSTONE (0600–2200)
FSS: RICHMOND (2200–0600)

BROOKE (L) BVORTAC 111.8/BRV **FSS:** WASHINGTON

CAPE CHARLES (L) BVORTAC **FSS:** NEWPORT NEWS
112.2/CCV

CASANOVA (L) BVORTAC 109.6/CSN **FSS:** WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE *IFR* 7N
FSS: CHARLOTTESVILLE on fld

VIRGINIA—*Continued*

634 H60(1) BL6,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
Remarks: Rnwy 21 threshold displaced 270′ SW.
ILS 109.1 I–CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.7 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD **FSS:** ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN **FSS:** DANVILLE

ECLIPSE RBn HW 209/NGU

EVINGTON RBn MHW 385/EVI **FSS:** ROANOKE

FELKER (T) VOR 111.4/FAF
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU
RBn MHW 356/NTU

FLAT ROCK (H) BVORTAC 113.3/FAK **FSS:** RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN **FSS:** NEWPORT NEWS
RBn H 362/FKN. Private facility

FRONT ROYAL (H) BVORTAC 115.3/FRR **FSS:** MARTINSBURG

GORDONSVILLE (H) BVORTAC **FSS:** CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM **FSS:** NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN **FSS:** WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW **FSS:** RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP **FSS:** ROANOKE
Remarks: Private Facility

LANGLEY (L) VOR 111.6/LFI

LAWRENCEVILLE (L) BVOR 112.9/LVL **FSS:** BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE **FSS:** ROANOKE

LINDEN (L) BVORTAC 114.3/LDN **FSS:** WASHINGTON

§LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sep 6.
Lynchburg Tower 120.7 122.5 R **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS[1] 110.1 I–LYH Apch Brg 032°
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: [1]BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR **FSS:** CHARLOTTESVILLE
112.6/MOL

MORRISON RBn MHW 248/MOV

NAVY NORFOLK SMRLWZ 269/NGU

NEWPORT NEWS
§PATRICK HENRY *IFR* 9NW **FSS:** NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVR:** Rnwy 6
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30-Sep 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 118.5
Tfc Info: VFR Adv service ctc Norfolk App Con 25 mi out.
ILS 110.1 I–PHF Apch Brg 065° **LOM:** 375/PH
Remarks: BC unusable below 1500′ MSL beyond 5 NM.

VIRGINIA—*Continued*

§NORFOLK MUNI ***IFR*** 5NE **FSS:** NEWPORT NEWS (DL)

27 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5 F5, JP1 U2 DT **RVV:** Rnwy 4

Remarks: DT May 30–Sep 5. Rgt tfc rnwy 1, 4, 13. U.S. Customs lndg rgts arpt. Rnwy 13 threshold displaced 214′ SE. 4662′ avbl lndg rnwy 13. 4876′ avbl lndg rnwy 31 and tkof rnwy 13. Rnwy 19 threshold displaced 966′ SW. 4034′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both directions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibited from making eng runup when facing SE at the apch end of rnwy 4. Fuel & services apbl 0600–2300.

Tower 121.1 122.5R 109.1T **Gnd Con** 121.9

Radar Services: (BCN)

App Con 127.2 125.7 **Dep Con** 118.5 126.8

Tfc Info: Expanded radar service avbl 118.9.

ASR- Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526

ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR

(H) BVORTAC 116.9/ORF at fld.

VHF/DF Ctc twr.

PULASKI (H) BVORTAC 115.9/PSK **FSS:** BLUEFIELD

Rng SBMRAZ[1] 272/PK

Remarks: [1]Reliable reception distance 40 NM.

RICHMOND

§RICHARD E. BYRD FLYING FIELD ***IFR*** 6 E **FSS:** RICHMOND on Fld

167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5 F5, JP1, JP4 U2 DT **RVV:** Rnwy 6

Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ operrun each end rnwy 15–33. DT May 30-Sep 5.

Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9 **Clrnc Del** 121.9

Radar Services: (BCN)

Richmond App Con 119.0 126.2 122.5R 119.9 110.3T

Richmond Dep Con 118.2

Tfc Info: Lndg acft ctc App Con 35 mi out on 119.9

ASR Rnwys 2, 15,[1] 20, 24,[1] 33[1] Ceil 400 Vsby 1 mi Min Alt 567

Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667

ILS 110.3 I–RIC Apch Brg 063° BC unusable **LOM:** 382/RI

Richmond (H) BVORTAC 114.1/RIC on fld.

Richmond SBH 260/RIC 018° 1.7 NM to fld.

Remarks: [1]400–¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT** 110.8.

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§ROANOKE MUNI ***IFR*** 3 NW **FSS:** ROANOKE on Fld

1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5 F5, JP1 U2 DT **REIL:** Rnwy 23

Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sep 6.

Tower 118.3 120.2 122.5R **Gnd Con** 121.9

Radar Services: (BCN)

App Con 126.9 122.5R 120.2 109.0T

Dep Con 126.0

ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374

Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.

Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV **FSS:** DANVILLE

SPRINGFIELD RBn MHW 353/SRI **FSS:** WASHINGTON

WOODRUM (T) VOR 109.0/ODR **FSS:** ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI **FSS:** BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K

ELLENSBURG (L) BVORTAC 117.9/ELN **FSS:** WENATCHEE

EPHRATA (H) BVOR 116.8/EPH **FSS:** EPHRATA

EVERETT

§PAINE FIELD ***IFR*** 6 SW **FSS:** SEATTLE (DL)

603 H90/16–34(2) (S–100, T–200, TT–400) BL6, 8A, 9 S5 F4, JP4 U2 DT2

Remarks: Rnwy 11 threshold displaced 1600′. Jet arresting barrier 3″ above rnwy 16/34 J-bar each end rnwy 34 not visible to twr 2000′ to 4000′ from apch end. Due constrn twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.

Tower 121.3 126.2 122.5R

Radar Services:

Seattle Center App Con 121.2

ASR Rnwy 16 Ceil 200 Vsby ½ mi Min Alt 803

ILS 109.3 I–PAE Apch Brg 158° **LOM:** 396/PAE

Everett (L) VOR 114.2/PAE on fld.

Everett RBn HW 396/PAE 158° 7.9 NM to fld

Remarks: LOM is HW.

GRAY RBn MH 216/GRF

HOQUIAM (H) BVORTAC 115.4/HQM **FSS:** HOQUIAM

Remarks: Restricted to awy and apch only.

KITSAP RBn MHW 206/PWT **FSS:** SEATTLE

Remarks: Operd by County.

MOSES LAKE **FSS:** EPHRATA (DL)

GRANT COUNTY 5.5 NW

1186 H135(2) BL5,6 **RVR:** Rnwys 14, 32

Remarks: Apch lgts unattended when twr not in opern. 1000′ asphalt overrun both rnwys each end.

Tower[1] 118.1 122.7R 117.0T **Gnd Con:** 121.9

ILS 109.5 I–MWH **LOM:** 408/MW

Moses Lake (L) VOR 117.0/MWH

Moses Lake RBn MHWZ 408/MW

Remarks: [1]Oper 0700–2400 Mon-Fri; 0700–2300 Sat-Sun and holidays. [2]RBn, ILS & VOR VFR practice only; monitored during hrs twr in opern. LOM is MHWZ.

NEAH BAY RBn HW 391/EBY **FSS:** SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM **FSS:** SEATTLE

PASCO (L) BVOR 108.4/PSC **FSS:** WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM **FSS:** SEATTLE

PULLMAN (L) BVOR 109.0/PUW **FSS:** WALLA WALLA

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§RENTON MUNI ***IFR*** Adj NW **FSS:** SEATTLE (LC RO 2–4000)

29 H53/15–33(1) (S–100, T–190, TT–300) BL5 S5 F4, U2 JP4 DT2

Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195–300° at 1000′ MSL beyond 2 mi.

Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9

Seattle Dep Con 119.2

Remarks: [1]Oper 0700–2300 lcl time.

SEATTLE

§KING COUNTY ARPT, BOEING FIELD ***IFR*** 4 S **FSS:** SEATTLE on fld

17 H1000/13–31(2) (S–100, T–160, TT–290)* BL6, 11, 12 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31

Remarks: *Rnwy 12–30 (Max–12.5)

Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9

Radar Services: (BCN)

Seattle App Con 119.5 123.9 125.9 122.6R 114.5T

Seattle Dep Con 119.2

ILS[1] 110.9 I–BFI Apch Brg 128° BC unusable **LOM:** 260/BF

WASHINGTON—*Continued*

Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.
Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

§SEATTLE-TACOMA INTL *IFR* 10 S FSS: SEATTLE (DL)
428 H119/16–34(2) S–45, T–145, TT–300) BL4,6,8A,9,14
S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Remarks: U.S. Customs lndg rgts arpt.
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I–SEA Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I–SZI[1] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF Ctc twr.
Remarks: [1]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

§SPOKANE INTL *IFR* 5 S FSS: SPOKANE
2372 H90/3–21(2) (S–100, T–200, TT–350) BL5, 6, 8A, 9
S3 F4 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7. Jet arresting barriers rnwy 3–21.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3
Tfc Info Ctc Spokane App Con aprx 20 mi out.
ILS 109.9 I–GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: **VOT:** 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW FSS: SEATTLE

WALLA WALLA
CITY COUNTY *IFR* 3NE FSS: WALLA WALLA on fld
1205 H72/2–20(3) BL4, 6, 8A, 9 S5 F4 DT2
Remarks: 1030′ overrun NE end; 1500′ overrun SW end.
Tower 118.5 122.7R
PAR Rnwy 20 Ceil 200 Vsby ½ mi Min Alt 1405
(L) BVOR 111.8/ALW
RBn BH 356/ALW

WENATCHEE (L) BVOR 111.0/EAT FSS: WENATCHEE

§YAKIMA MUNI *IFR* 2 S FSS: YAKIMA on Fld
1082 H55/9–27(3) (S–50, T–60, TT–100) BL4, 6 8A, 9 S5
F5, JP1, JP4 U2 **RVR:** Rnwy 27
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.7 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I–YKM Apch Brg 269° **LOM:** 284/YK
(H) BVORTAC 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW FSS: CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF FSS: BLUEFIELD

CHARLESTON
§KANAWHA *IFR* 2 NE FSS: CHARLESTON on Fld
982 H56/5–23(2) (S–150, T–200, TT–44) BL4, 6, 8A, 9, 11
S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:

WEST VIRGINIA—*Continued*

Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I–CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/SRW 084° 8.1 NM to fld
VHF/DF Ctc twr.
Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. **VOT:** 111.0.

CLARKSBURG (L) BVOR 115.1/CKB FSS: MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN FSS: ELKINS
Rng SBMRAZ[1] 245/EN
Remarks: [1]Reliable reception distance 40 NM.

HENDERSON (L) BVORTAC 111.2/HNN FSS: HUNTINGTON

HUNTINGTON
§TRI-STATE (WALKER LONG FLD) *IFR* 6 SW
FSS: HUNTINGTON on Fld
828 H53/11–29(1) (S–50, T–75, TT–135) BL6, 8A, 9 S5
F4, JP1 U2 DT1
Huntington Tower 120.9 122.5R **Gnd Con** 121.9
Huntington App Con 118.5 122.5R 109.9T
ILS[1] 109.9 I–HTS Apch Brg 114° **LOM:** 287/HT
Huntington RBn BH 323/HTW 199° 2.5 NM to fld.
Remarks: [1]Lclzr front unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL FSS: ELKINS

§MARTINSBURG MUNI *IFR* 4 S FSS: MARTINSBURG on Fld
556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2
Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Dulles App Con 119.2 126.1
Dulles Dep Con 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ¾ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.
Remarks: [1]Oper 0830–1630 lcl time Tues, Thur, Sat and Sun; 0830–2200 lcl time Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 0830–1630 lcl time Tues thru Sat only.

MORGANTOWN (L) BVORTAC 111.6MGW FSS: MORGANTOWN
RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB FSS: PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL FSS: CHARLESTON

§WHEELING-OHIO COUNTY *IFR* 7 N FSS: WHEELING on Fld
1195 H50/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12
F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21
Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9
ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL
Wheeling (L) BVORTAC 112.2/HLG 220° 5.8 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU
FSS: ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW FSS: GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ FSS: WAUSAU

CAMP MC COY RBn MHW 412/CAY

DELLS (L) BVORTAC 110.4/DLL FSS: LONE ROCK

WISCONSIN—*Continued*

EAU CLAIRE (L) BVORTAC 112.9/EAU FSS: EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD FSS: GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG FSS: MINNEAPOLIS

GREEN BAY

§AUSTIN STRAUBEL ***IFR*** 7 SW FSS: GREEN BAY on Fld
694 H52/6–24(3) (S–63, T–87, TT–160) BL4, 6, 8 S5 F4 U2 DT2 **RVR:** Rnwy 6
Remarks: U.S. Customs lndg rgts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE
Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9
Green Bay App Con 119.4
VFR ADV Ctc App Con on 119.4.
ILS[1] 109.5 I–GRB Apch Brg 059° **LOM:** 356/GR
Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.
VHF/DF Ctc FSS.

JANESVILLE

ROCK COUNTY ***IFR*** 4 SW FSS: ROCKFORD (LC EN5639)
808 H54/4–22(3) BL6, 11 S5 F4 JP1 U2 DT2
REIL: Rnwy 4
Remarks: Rnwy 22 threshold displaced 698′ NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.
Tower[1] 121.2 122.7R 121.5x[2] **Gnd Con** 121.9
Rockford App Con 119.6
(L) BVORTAC 113.4/JVL
Remarks: [1]Opers 0600–2200 lcl time. [2]Thru Rockford FSS.

LACROSSE (T) BVOR 108.4/LSE FSS: LACROSSE
RBn MHW 371/LSE

LAND 'O LAKES RBn MHW 396/LNL FSS: WAUSAU
Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR FSS: LONE ROCK

MADISON

§TRUAX FIELD ***IFR*** 5 NE FSS: MADISON on Fld
859 H76/18–36(4) (S–150, T–190, TT–310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36
Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24–hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.
Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9
Madison App Con 120.1 126.2 109.9T
Madison Dep Con 118.8
VFR ADV Ctc App Con on 120.1.
ILS 109.9 I–MSI Apch Brg 359° **LOM:** 400/MSN
Madison RBn MHW 400/MSN 359° 3.9 NM to fld.
Truax (L) BVOR 115.5/TAX at fld.
VHF/DF Ctc FSS.
Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW FSS: GREEN BAY

MARSHFIELD RBn MHW 391/MFI
Remarks Operd by City

MILWAUKEE

§GENERAL MITCHELL FLD ***IFR*** 5 S FSS: MILWAUKEE on Fld
722 H99/1–19(4) (S–100. T–185, TT–350) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwys 1, 7R
Remarks: U.S. Customs lndg rgts arpt. Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L–25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N. Rnwy 7L threshold displaced 667′ NE. Rnwy 25R threshold displaced 944′ SW. Air carrier turbo-jet trng lndgs and tkofs prohibited 0330–1100Z. Tkofs permitted rnwy 7R btn 040–100° and wind velocity greater than 10 knots only.
Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 120.0
ATIS: 110.3.
Radar Services: (BCN)
Milwaukee App Con 126.5 123.8 126.2 116.4 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360–179° of fld ctc App Con on 123.8; from 180–359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19[2] 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
ILS 110.3 I–MKE Apch Brg 006° **LOM:** 410/MK
110.7 I–GMF Apch Brg 070° **LOM:** 242/GM
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Mitchell RBn H–SAB 242●/GM 070° 5.8 to rnwy 7R
VHF/DF Ctc twr.
Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. [2]Do not descend below 1800′ til ctlr advise passing 5 mi radar fix. LOM is S–HAB. **VOT:** 109.0.

§TIMMERMAN FIELD ***IFR*** 5 NW FSS: MILWAUKEE (DL)
745 H41/15L–33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County Arpt Director except emgcy.
Tower[1] 120.5 122.5R 121.5x[4] **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[3] 126.2 123.8[2] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info Ctc Milwaulkee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200–0400Z. [2]360–179. [3]180–359. [4]Thru Mitchell Twr or Milwaukee FSS.

OSHKOSH

§WINNEBAGO CO ***IFR*** 1 SW FSS: GREEN BAY (DL)
795 H58/9–27(4) (S–40, T–55, TT–80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4–22, 13–31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I–OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300–0500Z

RACINE RBn MH 260/RAC FSS: MILWAUKEE

REWEY (L) BVOR 115.8/RWY FSS: LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI FSS: WAUSAU

SHEBOYGAN MHW 254/SBM

STEVENS POINT (L) BVOR-DME 110.6/STE FSS: WAUSAU
Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC FSS: MILWAUKEE

TRUAX (L) BVOR 115.5/TAX

VOLK (L) VOR 109.0/VOK
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW FSS: WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI FSS: ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY FSS: WORLAND

§CASPER AIR TERMINAL *IFR* 7 NW FSS: CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9
S5 F4, JP4 U2
Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVORTAC 112.2/CKW FSS: RAWLINS

§CHEYENNE MUNI *IFR* 1 N FSS: CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5
F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
App Con 120.0 122.5R 113.1T 109.9T
VFR ADV Ctc App Con on 120.0 aprx 25 mi out.
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1/CYS 196° 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI FSS: SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW FSS: CASPER

DUNOIR (L) BVOR 113.4/DNW FSS: WORLAND

FORT BRIDGER (L) BVORTAC 108.6/FBR FSS: ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC FSS: IDAHO FALLS
Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR FSS: LARAMIE

MEDICINE BOW (L) BVORTAC 114.1/MBW FSS: LARAMIE

RIVERTON (L) BVOR 108.8/RIW FSS: WORLAND

§ROCK SPRINGS MUNI *IFR* 7E FSS: ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290●/RKS
VHF/DF Ctc FSS.

SHERIDAN (L) BVORTAC 115.3/SHR FSS: SHERIDAN

SINCLAIR RBn SBH 368/SIR FSS: RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE FSS: SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ FSS: SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W FSS: SAN JUAN
10 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100–0200Z

§PUERTO RICO INTL 6E FSS: SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9
ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391/SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP FSS: SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

ST. CROIX (L) BVOR 108.2/STX FSS: ST. CROIX
RBn[1] **HW** 224/STX
Remarks: [1]Oper 1100–0300Z

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W FSS: SAN JUAN
11 H42/9–27(1) (S–30, T–45, TT–70) BL5 F4
Remarks: U.S. Customs lndg rgts orpt.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE PART I DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies

ALBUQUERQUE

VHF (Low)	VHF (High)
119.8 120.1 124.5 124.6	132.65 132.9 133.0 133.05
124.7 125.2 125.4 125.9	133.45 133.55 133.65 133.8
126.0 126.4 126.9 127.2	133.85 134.35 134.45 134.75
132.3 134.5	135.05 135.15 135.3 135.7
	135.8

ATLANTA

VHF (Low)	VHF (High)
118.9 120.0 120.3 121.2	132.25 132.75 132.85 132.9
123.8 124.1 124.4 125.2	133.1 133.35 133.7 134.45
125.5 125.9 126.1 126.4	134.55 134.6 135.15 135.75
126.6 126.8 127.55 127.8	
128.3 128.6 128.65 128.75	
135.6	

BOSTON

VHF (Low)	VHF (High)
119.0 121.0 124.0 124.2	127.8 128.1 132.5 132.65
124.9 125.8 127.0 127.1	132.9 133.5 134.3 134.7
127.3 127.6 127.9 128.1	134.45 134.95 134.85
128.2 132.4 132.5 132.65	
135.7	

CHICAGO

VHF (Low)	VHF (High)
119.4 119.6 120.2 120.4	124.5 127.95 128.65 132.15
120.6 120.8 121.4 123.9	132.4 132.5 132.75 133.1
124.0 124.1 124.4 124.8	133.35 133.5 133.7 133.9
125.1 125.2 125.6 126.4	133.95 134.85 135.1 135.35
126.6 126.8 127.0 127.1	135.55
127.5 127.6 127.7 127.8	
128.0 128.05 128.2 128.4	
128.5 128.7 132.2 132.3	
133.9	

CLEVELAND

VHF (Low)	VHF (High)
118.8 118.9 119.6 119.8	132.25 132.45 133.25 133.3
120.2 120.3 120.4 120.6	133.95 134.25 134.65
120.8 121.2 121.4 123.9	
124.2 124.3 124.4 124.6	
125.0 125.1 125.2 125.3	
125.6 125.7 126.1 126.4	
126.8 127.15 127.45 127.5	
127.65 127.9 128.35 128.45	
128.6 134.3	

Center SECTOR Discrete Frequencies

DENVER

VHF (Low)	VHF (High)
119.8 124.1 125.0 125.6	127.3 127.55 128.2 132.1
125.8 126.0 127.2 127.8	132.05 132.15 132.85 133.15
132.5 132.7 133.0 133.4	133.3 133.5 133.75 133.85
134.6	134.4 134.65 134.7 135.5
	135.15 135.65

FORT WORTH

VHF (Low)	VHF (High)
119.4 124.4 124.6 124.7	132.2 132.35 132.45 132.55
124.8 125.0 125.6 126.0	132.75 133.25 133.35 133.5
126.6 127.0 127.3 127.7	133.55 133.7 133.95 134.25
128.1 128.3 128.8 133.1	134.55 134.85 135.1 135.35
133.3 133.9 135.0 135.6	135.4 135.75

GREAT FALLS

VHF (Low)	VHF (High)
120.4 124.1 125.0 125.1	118.9 132.25 132.65 132.95
125.8 125.9 126.4 126.5	133.4 133.55 134.55 135.25
127.6	135.55

HOUSTON

VHF (Low)	VHF (High)
118.2 118.9 120.6 120.7	127.8 132.15 132.4 132.5
121.0 121.2 124.0 124.1	132.6 132.7 132.8 132.95
124.2 125.8 125.9 126.0	133.05 133.4 133.65 133.75
126.4 126.6 126.8 126.9	133.85 134.35 134.8 134.95
126.95 127.0 127.05 127.2	135.2
128.0 128.1 128.2 128.3	
128.4 132.9 134.7	

INDIANAPOLIS

VHF (Low)	VHF (High)
118.2 124.2 124.4 124.8	128.25 132.7 133.05 133.45
126.0 127.0 127.1 127.3	133.75 134.35 134.75 134.9
127.4 128.3 128.4 128.55	134.95
128.8 132.2 132.6 135.1	
135.7 135.8	

ARTCC COMMUNICATIONS FREQUENCIES

Center SECTOR Discrete Frequencies

JACKSONVILLE

VHF (Low)				VHF (High)			
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65
121.3	124.3	124.7	125.1	133.25	133.95	134.25	134.75
125.5	126.5	126.9	127.2	134.85	135.4	135.05	135.25
128.1	132.3	132.5	132.8	135.55	135.65		
133.4	133.5	134.3					

KANSAS CITY

VHF (Low)				VHF (High)			
118.4	118.8	119.0	119.2	132.25	132.65	132.9	132.95
119.7	120.2	120.3	121.0	133.15	133.45	133.8	134.3
123.8	124.1	124.3	124.4	134.7	135.45	135.0	135.25
125.1	125.2	125.3	125.5	135.4			
125.9	127.4	127.5	127.6				
127.7	127.8	128.1	128.4				
128.6	132.1	134.6	134.9				

LOS ANGELES

VHF (Low)				VHF (High)			
119.0	123.9	124.2	124.8	127.9	128.3	128.6	132.15
125.0	125.8	126.0	126.4	133.05	133.25	133.55	134.55
126.6	127.1	127.3	127.4	134.75	134.95	135.25	135.45
128.2	128.4	128.8	132.3				
132.5	132.6	133.4	133.8				
134.2	134.4	134.6					

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	124.4	132.35	133.0	133.55	133.6
124.6	125.4	126.1	127.1	134.25	134.9	135.3	135.5
127.2	127.25	127.3	127.4	135.7			
127.6	127.75	128.05	128.7				
132.1	132.3	132.5					

MIAMI

VHF (Low)				VHF (High)			
118.9	120.0	120.3	124.1	125.7	127.7	132.7	132.15
124.4	124.5	124.7	125.4	132.95	133.65	133.8	134.35
125.6	125.8	126.4	127.0	134.5	134.95	135.5	
127.2	127.3	127.4	128.25				

MINNEAPOLIS

VHF (Low)				VHF (High)			
120.3	120.9	125.1	125.3	132.15	133.4	133.55	133.65
125.5	125.6	125.9	126.0	133.85	134.25	134.45	134.8
126.1	127.1	127.2	127.3	134.55	135.45	135.7	
127.8	127.9	128.6	132.1				
132.6	134.8						

Center SECTOR Discrete Frequencies

NEW YORK

VHF (Low)				VHF (High)			
119.6	119.8	120.2	124.2	127.95	132.1	132.3	132.75
124.8	125.1	125.3	125.4	132.95	133.8	133.9	134.8
125.5	125.6	126.0	126.4	135.45	135.55	135.75	
126.6	126.8	126.9	128.2				
128.3	128.5	128.65	128.7				
132.6	134.6	135.1	135.6				
135.65							

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	127.05	128.15	132.05	132.35
121.2	123.8	123.9	124.2	132.8	132.65	132.85	132.95
124.6	125.5	125.9	126.5	133.3	133.7	133.75	
126.8	127.3	127.2	127.5	134.35	134.7		
127.7	127.8	128.7					

SALT LAKE CITY

VHF (Low)				VHF (High)			
120.3	123.8	124.0	124.4	132.25	132.4	132.5	132.55
124.5	125.3	125.6	126.4	132.75	133.25	133.45	134.15
126.6	127.4	128.4	133.1	134.25	134.85	135.7	

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	120.3	121.2	125.1	125.6
124.3	125.1	125.3	125.6	133.5	133.65	133.9	134.65
125.8	126.0	128.1	132.1	134.75			
132.6	133.5						

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0
121.0	123.9	124.0	124.7	133.15	133.55	133.65	133.85
124.9	125.2	125.8	126.4	134.4	135.2		
127.1	127.6	128.15	128.6				
132.4	133.25	134.3	135.0				
135.4							

SAN JUAN

VHF (Low)	VHF (High)			
125.0	119.9	120.3	121.1	121.5

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 1 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 123.6 and emergency 121.6. These frequencies are normally available at all stations listed. Four designated part-time FSS's transmit and receive on only 123.6 and 121.5 (emergency). These are identified in the tabulation by ✓ symbol preceding the name.

Location and Identifier			Area Code	Telephone
ALABAMA				
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595-6151★
		WB	(205)	595-2101
Dothan DHN	DF	FSS	(205)	794-6683
Huntsville HSV		FSS	(205)	536-1254
		WB	(205)	881-2761◆
Mobile MOB (Bates)		FSS	(205)	342-1177
		WB	(205)	342-2762◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269-4368
		WB	(205)	263-0621◆
Muscle Shoals MSL	DF	FSS	(205)	383-6541
		WB	(205)	383-6657◆
Tuscaloosa TCL		FSS	(205)	758-3628
ARIZONA				
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4-5353
Flagstaff		WB	(602)	774-1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261-4295▬
		WB	(602)	261-3868★
Prescott PRC	DF	FSS	(602)	HI 5-2160
Tucson TUS	DF	FSS	(602)	792-6359▬
Winslow		WB	(602)	289-3592
Yuma YUM		FSS	(602)	725-2601▬
ARKANSAS				
El Dorado ELD (Goodwin)		FSS	(501)	UN 3-9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2-8277

Location and Identifier			Area Code	Telephone
ARKANSAS (Con't)				
Ft. Smith FSM		FSS	(501)	MI 6-7868/69
		WB	(501)	646-5731
Harrison HRO		FSS	(501)	EM 5-3433
Little Rock		WB	(501)	374-1546◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5-0652
Texarkana TXK		FSS	(501)	774-6221
Walnut Ridge ARG		FSS	(501)	TU 6-6671
CALIFORNIA				
Arcata ACV	DF	FSS	(707)	TE 9-2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399-1787▬
Bishop		WB	(714)	873-3213 (0545-1915)
Blue Canyon		WB	Emigrant Gap 2721 (0545-1415)	
Blythe BLH	DF	FSS	(714)	948-6638
Burbank		WB	(213)	848-6206◆
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4-2514
Daggett DAG	DF	FSS	(714)	CL4-2223
Eureka		WB	(707)	442-2171◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251-8269▬
Imperial IPL		FSS	(714)	355-1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429-0337◆
Los Angeles LAX (International)		FSS	(213)	SP 6-2727
		WB	(213)	670-2223
Marysville MYV (Yuba Co.)		FSS	(916)	742-1449
Montague SIY (Siskiyou Co.)		FSS	(916)	459-3003
Mt Shasta		WB	(916)	926-2227 (0730-1600)
Needles EED		FSS	(714)	326-3511

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

CALIFORNIA (Con't.)

Location and Identifier			Area Code	Telephone
Oakland OAK (International)		FSS	(415)	562-7807■
		WB	(415)	832-5418★
				(Via San Francisco)
Ontario ONT		FSS	(714)	983-2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947-3502
Paso Robles PRB	DF	FSS	(805)	238-2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527-0242■
Sacramento SAC	DF	FSS	(916)	428-6500■
Salinas SNS		FSS	(408)	422-4723
San Diego SAN (Lindbergh)		FSS	(714)	296-3181■
San Francisco		WB	(415)	589-6711★
		WB	(415)	761-2052◆
(So. San Francisco)		WB	(415)	588-3012
Santa Barbara SBA	DF	FSS	(805)	967-2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925-3525
				(0600-2200)
Stockton SCK		FSS	(209)	466-3684■
Thermal TRM		FSS	(714)	EX 9-5155
Ukiah UKI		FSS	(707)	462-6136

COLORADO

Location and Identifier			Area Code	Telephone
Akron AKO		FSS	(303)	345-2271
Alamosa		WB	(303)	589-2547
				(0400-2000)
Colorado Springs		WB	(303)	596-0553◆
Denver DEN (Stapleton Intl)		FSS	(303)	297-3277■
		WB	(303)	388-3653★
Eagle EGE		FSS	(303)	328-2125
Grand Junction GJT (Walker Field)		FSS	(303)	242-1801■
La Junta LHX		FSS	(303)	DU 4-4311
Pueblo PUB (Memorial)		FSS	(303)	948-3301
		WB	(303)	948-3376◆
Trinidad TAD	DF	FSS	(303)	846-2623

CONNECTICUT

Location and Identifier			Area Code	Telephone
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247-2855◆
New Haven		WB	(203)	469-2141◆
				(0630-1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3-5590

DELAWARE

Location and Identifier			Area Code	Telephone
Wilmington		WB	(302)	328-2755◆

DISTRICT OF COLUMBIA

Location and Identifier			Area Code	Telephone
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661-8526◆
Washington National DCA		FSS	(202)	DI 7-4040
		WB	(202)	628-0491■
		WB	(202)	347-8016★

■This line answered by FSS or WB. Caller can be switched to either office upon request.

FLORIDA

Location and Identifier			Area Code	Telephone
Apalachicola		WB	(904)	653-3171
Crestview CEW	DF	FSS	(904)	MU 2-2795
Daytona Beach DAB		FSS	(904)	255-4767
		WB	(904)	252-3112
Ft. Myers FMY (Page Field)	DF	FSS	(813)	WE 6-1857★
			(813)	WE 6-2057
				(0600-1400 Apr-Oct)
				(0600-2200 Nov-Mar)
Gainesville GNV		FSS	(904)	376-8521
Jacksonville JAX (Imeson)		FSS	(904)	355-3601■
		WB	(904)	353-8605★
Key West EYW (International)		FSS	(305)	CY 6-2042
		WB	(305)	CY 6-2011
Lakeland		WB	(813)	682-4221
				(0600-2400 Nov 15-Mar 15)
				(0800-1700 Mar 16-Nov 14)
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3-6151
Miami MIA		IFSS	(305)	633-1461■
		WB	(305)	666-2543★
Orlando ORL (Herndon)		FSS	(305)	841-5101■
Pensacola PNS		FSS	(904)	438-4390
St Petersburg PIE (Clearwater Intl)		FSS	(813)	527 2148/9
		FSS	(813)	527-4888★
Tallahassee TLH	DF	FSS	(904)	224-7101
		WB	(904)	222-3335
Tampa TPA (Tampa International)		WB	(813)	229-1708★
		WB	(813)	877-1677◆
Vero Beach VBR	DF	FSS	(305)	562-2167
			(305)	464-1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832-5697★
		WB	(305)	683-3032◆

GEORGIA

Location and Identifier			Area Code	Telephone
Albany ABY	DF	FSS	(912)	435-6201
Alma AMG		FSS	(912)	632-4422 (0600-2200 EST)
Athens		WB	(404)	LI 3-3891◆
Atlanta FTY (Fulton Co.)	DF	FSS	(404)	344-1551
		WB	(404)	767-0244★
		WB	(404)	767-3187◆
Augusta AGS (Bush Fld)		WB	(404)	798-6821
Brunswick SSI (Malcom McKinnon)		FSS	(912)	638-8641
Columbus		WB	(404)	322-1793◆ (0630-2045)
Macon MCN (Muni)	DF	FSS	(912)	788-5064
		WB	(912)	788-1100◆
Rome		WB	(404)	232-6801 (0700-1300 Mon-Fri) (0700-1100 Sat)
Savannah SAV (Travis)		FSS	(912)	234-2257/8▬
Valdosta VLD		FSS	(912)	CH 4-2361

IDAHO

Location and Identifier			Area Code	Telephone
Boise BOI (Air Terminal)		FSS	(208)	343-2525▬
Burley BYI		FSS	(208)	678-7451
Idaho Falls IDA (Fanning Field)	DF	FSS	(208)	522-9024
Lewiston		WB	(208)	743-3841
Malad City MLD		FSS	(208)	766-2971
Mullan Pass MLP		FSS	(208)	PR 5-2001
Pocatello PIH		FSS	(208)	232-2032
		WB	(208)	233-0143◆

ILLINOIS

Location and Identifier			Area Code	Telephone
Champaign CMI (University of Ill.)		FSS	(217)	822-5211
Chicago		WB	(312)	686-2155◆
		WB	(312)	667-5055★
Joliet JOT	DF	FSS	(815)	725-3144
		FSS	(312)	242-3111
Moline MLI (Quad City)		FSS	(309)	762-2412
		WB	(309)	762-1726
Peoria PIA (Greater Peoria)		FSS	(309)	697-0751
		WB	(309)	637-6422◆
Quincy UIN (Baldwin)		FSS	(217)	885-3251
Rockford RFD (Greater Rockford)		FSS	(815)	965-6758
		WB	(815)	963-5816◆ (0515-2115)
Springfield SPI (Capital)		FSS	(217)	544-9012
		WB	(217)	523-5812◆
Vandalia VLA		FSS	(618)	283-0478

INDIANA

Location and Identifier			Area Code	Telephone
Evansville EVV (Dress Memorial)	DF	FSS	(812)	422-8120
		WB	(812)	424-9613◆
Ft. Wayne FWA (Baer Field)		FSS	(219)	747-3139
		WB	(219)	747-2577◆
Indianapolis IND (Weir-Cook)	DF	FSS	(317)	244-3316▬
		WB	(317)	244-2411★
Layfayette LAF (Purdue University)		FSS	(317)	743-1802/3
South Bend SBN (St. Joseph Co.)	DF	FSS	(219)	CE 3-4433
		WB	(219)	234-3937◆
Terre Haute HUF (Hulman)	DF	FSS	(812)	CR-2704

IOWA

Location and Identifier			Area Code	Telephone
Burlington BRL		FSS	(319)	752-4734
Cedar Rapids CID		FSS	(319)	364-3041
Davenport (via Moline Ill.)		WB	(319)	326-2677
Des Moines DSM		FSS	(515)	285-5691
		WB	(515)	284-4493◆
Dubuque		WB	(319)	582-3171 (0545-2105)
Mason City MCW		FSS	(515)	GA 3-7512
Ottumwa OTM		FSS	(515)	MU 2-1846
Sioux City SUX	DF	FSS	(712)	258-1060
		WB	(712)	252-0244 ext 210
Waterloo ALO		FSS	(319)	AD 3-5528
		WB	(319)	234-1602◆

KANSAS

Location and Identifier			Area Code	Telephone
Concordia		WB	(913)	243-3141
Chanute CNU		FSS	(316)	HE 1-4450
Dodge City DDC		FSS	(316)	HU 3-3441
		WB	(316)	483-3311
Emporia EMP		FSS	(316)	DI 2-7475
Garden City GCK (New Municipal)	DF	FSS	(316)	BR 6-2531
Goodland GLD	DF	FSS	(913)	899-7154▬
Hill City HLC		FSS	(913)	674-5642
Hutchinson HUT		FSS	(316)	2-4851
✓Manhattan MHK		FSS	(913)	PR 8-2162 (0700-2100) (Other hrs. Salina) LC PR 6-9751
Russell RSL		FSS	(913)	483-2312
Salina SLN		FSS	(913)	TA 5-5309
Topeka TOP (Phillip Billard)		FSS	(913)	232-5478
		WB	(913)	CE 4-8659◆
Wichita ICT		FSS	(316)	942-2261/2▬
		WB	(316)	942-3284★

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

KENTUCKY

Location and Identifier			Area Code	Telephone
Bowling Green BWG (Warren County)		FSS	(502)	843–4424
Erlanger (Gtr Cincinnati Arpt)		WB	(513)	381–8195 ◆
Lexington LEX (Blue Grass)		FSS	(606)	254–5143
		WB	(606)	255–1774 ◆
London LOZ		FSS	(606)	864–4410
Louisville LOU (Bowman)		FSS	(502)	451–5344
		WB	(502)	368–2188 ◆
Paducah PUK (Barkley)		FSS	(502)	442–1551

LOUISIANA

Location and Identifier			Area Code	Telephone
Alexandria AEX	DF	FSS	(318)	445–3663▬
Baton Rouge BTR (Ryan)		FSS	(504)	EL 5–2763
		WB	(504)	357–9943 ◆
Lafayette LFT		FSS		CE 5–3752
Lake Charles LCH		FSS	(318)	477–1784▬
Monroe MLU		FSS	(318)	322–3157
New Orleans MSY		FSS	(504)	943–5535
		FSS	(504)	947–0679
		WB	(504)	729–2520 ◆
Shreveport SHV (Greater Shreveport)		FSS	(318)	ME 1–3661
		WB	(318)	631–1141 ◆

MAINE

Location and Identifier			Area Code	Telephone
Augusta AUG (State)	DF	FSS	(207)	622–6491
Caribou		WB	(207)	496–8931
Houlton HUL (Memorial International)	DF	FSS	(207)	532–2475
Millinocket MLT		FSS	(207)	723–8343
Old Town OLD		FSS	(207)	827–2363
		FSS	(207)	827–4010
Portland PWM		FSS	(207)	SP 5–0602
		WB	(207)	775–3071 ◆

MARYLAND

Location and Identifier			Area Code	Telephone
Baltimore		WB	(301)	761–1333 ◆
		WB	(301)	766–0757 ★
Salisbury SBY (Salisbury-Wicomico)		FSS	(301)	742–8719

MASSACHUSETTS

Location and Identifier			Area Code	Telephone
Boston BOS (Logan)		FSS	(617)	223–6447
		FSS	(617)	567–7420
		WB	(617)	569–1773 ★
Nantucket ACK	DF	FSS	(617)	228–0815▬
		WB	(617)	228–0971
Worcester ORH		FSS	(617)	PL 5–6083
		WB	(617)	798–2124 ◆ (0600–2200)

MICHIGAN

Location and Identifier			Area Code	Telephone
Alpena		WB	(517)	354–8733 ◆
Battle Creek BTL (Kellogg)		FSS	(616)	962–7878
Detroit DET (City)	DF	FSS	(313)	372–3737
		WB	(313)	274–5310 ★
		WB	(313)	278–7340 ◆
Flint FNT (Bishop)		FSS	(313)	CE 3–6250
		WB	(313)	CE 4–3987 ◆
Grand Rapids GRR (Kent County)		FSS	(616)	949–4090
		WB	(616)	949–4251 ◆
Houghton CMX (Houghton County)		FSS	(906)	482–0380
Houghton Lake (Roscommon County)		WB	(517)	366–5392
Jackson JXN (Reynolds Mun.)		FSS	(517)	ST 4–9640
Lansing LAN (Capital City)		FSS	(517)	482–9237
		WB	(517)	489–4603 ◆
Marquette MQT		FSS	(906)	GR 5–4197
		WB	(906)	226–8642 ◆ (0500–2100)
Muskegon MKG (Muskegon County)		FSS	(616)	798–1222
		WB	(616)	798–3048
Pellston PLN (Emmet County)		FSS	(616)	LE 9–8401
Saginaw MBS (Tri City)	DF	FSS	(517)	695–4111
Saulte Ste Marie SSM		FSS	(906)	632–8271
		WB	(906)	632–9461
Traverse City TVC		FSS	(616)	947–5056
Ypsilanti		WB	(313)	482–5001 (0530–2130)

MINNESOTA

Location and Identifier			Area Code	Telephone
Alexandria AXN		FSS	(612)	763–3710
Duluth		WB	(218)	722–7982 ◆
Hibbing HIB (Chisholm-Hibbing)	DF	FSS	(218)	262–1820
International Falls		WB	(218)	285–5151
Minneapolis MSP St. Paul Intl		FSS	(612)	PA 9–9386
(Wold-Chamberlain)	DF	FSS	(612)	PA 9–1957
		WB	(612)	PA 9–4429 ◆
		WB	(612)	729–9339 ★
Redwood Falls RWF		FSS	(507)	637–8530
Rochester RST		FSS	(507)	289–1579▬
St. Cloud		WB	(612)	251–3213 (0400–2200)
St. Paul (See: Minneapolis)				

MISSISSIPPI

Location and Identifier			Area Code	Telephone
Greenwood GRW		FSS	(601)	GL 3–2631
Jackson JAN (Thompson Field)		FSS	(601)	939–5212
		WB	(601)	939–5881 ◆

MISSISSIPPI (Con'L)

Location and Identifier			Area Code	Telephone
McComb MCB (Pike County)		FSS	(601)	684-7070
Meridian MEI (Key Field)		FSS	(601)	482-1243
		WB	(601)	483-3725◆
Vicksburg		WB	(601)	636-1193
				(0630-1530 Mon-Fri)
				(0630-1130 Sat, Holidays)
				(clsd Sunday)

MISSOURI

Location and Identifier			Area Code	Telephone
Cape Girardeau GGI		FSS	(314)	ED 4-2803
Columbia CBI		FSS	(314)	449-1136/7
		WB	(314)	443-4332
Joplin JLN		FSS	(417)	MA 3-6868
Kansas City MKC		FSS	(816)	GR 1-5484▬
		WB	(816)	471-2131★
Kirksville IRK		FSS	(816)	MO 5-4132
St. Joseph STJ (Rosecrans Memorial)		FSS	(816)	BR 9-2394
St. Louis STL (Lambert)		FSS	(314)	PE 1-0900
		WB	(314)	731-3001◆
		WB	(314)	PE 1-3004★
		WB	(314)	848-3303★
				(Hazlewood)
Springfield SGF	DF	FSS	(417)	862-3588▬
Vichy VIH (Rolla National)		FSS	(314)	AX 9-3677

MONTANA

Location and Identifier			Area Code	Telephone
Billings BIL (Logan Field)	DF	FSS	(406)	259-4545▬
Bozeman BZN (Gallatin Field)		FSS	(406)	586-6520
Butte BTM (Silver Bow)		FSS	(406)	723-3004
Cut Bank CTB		FSS	(406)	938-4522
Dillon DLN		FSS	(406)	683-5651
Glasgow Intl		WB	(406)	228-4042
				(0300-2400)
Great Falls GTF (International)		FSS	(406)	452-6495
		WB	(406)	453-3512◆
Havre		WB	(406)	265-6424
				(0430-1315)
Helena HLN		FSS	(406)	442-9902
		WB	(406)	442-8260
Kalispell		WB	(406)	756-4829
Lewistown LWT		FSS	(406)	538-3639
Livingston LVM (Mission Field)		FSS	(406)	222-2411
Miles City MLS	DF	FSS	(406)	232-1503
Missoula MSO (Missoula City)		FSS	(406)	542-2230
		WB	(406)	543-7996◆

NEBRASKA

Location and Identifier			Area Code	Telephone
Chadron CDR		FSS	(308)	HE 2-3153
Grand Island GRI		FSS	(308)	382-5196
		WB	(308)	384-1907
Imperial IML		FSS	(308)	TU 2-4887
Lincoln LNK (Mun/AFB)		FSS	(402)	477-3929▬
Norfolk		WB	(402)	371-3386
				(0530-2130)
North Plate LBF (Lee Bird)		FSS	(308)	LE 2-4034▬
Omaha OMA (Eppley)		FSS	(402)	341-6178▬
		WB	(402)	342-3603★
Scottsbluff BFF		FSS	(308)	635-2615
		WB	(308)	632-6822
Sidney SNY		FSS	(308)	254-3130
Valentine		WB	(402)	376-3442

NEVADA

Location and Identifier			Area Code	Telephone
Elko EKO		FSS	(702)	738-6506▬
Ely ELY (Yelland Filed)		FSS	(702)	289-2045
		WB	(702)	289-2403
Las Vegas LAS (McCarran)		FSS	(702)	736-1573/4▬
Lovelock LOL (Derby Field)	DF	FSS	(702)	273-2448
Reno RNO		FSS	(702)	784-5414
		WB	(702)	784-5402◆
Tonopah TPH (Nye County)		FSS	(702)	482-6421
Winnemucca		WB	(702)	623-2203

NEW HAMPSHIRE

Location and Identifier			Area Code	Telephone
Concord CON		FSS	(603)	224-7474▬
Lebanon LEB (Regional)		FSS	(603)	298-8360

NEW JERSEY

Location and Identifier			Area Code	Telephone
Atlantic City		WB	(609)	641-4327◆
Millville MIV		FSS	(609)	825-1173
Newark		WB	(201)	624-8118
				624-7272★
				(Via New York)
Teterboro TEB		FSS	(201)	288-9092

NEW MEXICO

Location and Identifier			Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)		FSS	(505)	243-7831▬
		WB	(505)	242-2661★
Carlsbad CNM		FSS	(505)	TU 5-2042
Clayton		WB	(505)	374-9511
				(0430-1130 Mon-Fri)
				(0430-0930 Sat)

NEW MEXICO (Con't.)

Location and Identifier			Area Code	Telepone
Deming DMN		FSS	(505)	546–2726
Farmington FMN	DF	FSS	(505)	325–9271
Grants GNT		FSS	(505)	AT 7–3011
Hobbs HOB (Lea County)		FSS	(505)	EX 3–3222
Las Vegas LVS		FSS	(505)	GA 5–7411
Raton		WB	(505)	445–3891 (0545–1225)
Roswell ROW	DF	FSS	(505)	622–6780▬
Santa Fe SAF		FSS	(505)	YU 3–6581
Silver City		WB	(505)	538–9023 (0530–2000 Mon–Fri)
Truth or Consequences TCS	DF	FSS	(505)	894–3277
Tucumcari TCC	DF	FSS	(505)	461–2900
Zuni ZUN		FSS	(505)	782–3770

NEW YORK

Location and Identifier			Area Code	Telepone
Albany ALB (Albany County)		FSS	(518)	869–9225
		WB	(518)	UN 9–9173◆
Binghamton BGM (Broome County)		FSS	(607)	RA 9–6145
		WB	(607)	797–0784◆
Buffalo BUF (Greater Buffalo)		FSS	(716)	632–6083▬
		WB	(716)	632–5042★
Elmira ELM (Chemung County)		FSS	(607)	RE 9–2471
Glens Falls GFL (Warren County)		FSS	(518)	RX 3–2593
Islip ISP (Long Island MacArthur)	DF	FSS	(516)	JU 8—1061
(New York)		FSS	(914)	723–4330
		FSS	(212)	995–8657
Massena MSS	DF	FSS	(315)	RO 9–2033
New York JFK (John F. Kennedy Intl)		IFSS	(212)	995–8659
		WB	(212)	656–7474★
New York (John F. Kennedy Intl and LaGuardia)		WB	(212)	995–9151◆
Poughkeepsie POU (Dutchess County)		FSS	(914)	462–3400
Rochester ROC (Monroe County)		FSS	(716)	BE 5–5625
		WB	(716)	FA 8–7391◆
Syracuse SYR (Hancock)		FSS	(315)	GL 4–2479
		WB	(315)	454–1214◆
Utica UCA (Oneida)		FSS	(315)	RE 6–9023
Watertown ART		FSS	(315)	NE 9–3321

NORTH CAROLINA

Location and Identifier			Area Code	Telepone
Asheville AVL		FSS	(704)	684–4401
		WB	(704)	684–6906◆
Cape Hatteras		WB	(919)	995–2321
Charlotte		WB	(704)	399–6000◆
Durham		WB	(919)	596–2326
Elizabeth City ECG (Coast Guard Air Station)		FSS	(919)	338–3808
Fayetteville FAY (Grannis Field)		FSS	(919)	483–7904
Greensboro		WB	(919)	299–9499◆
Hickory HKY		FSS	(704)	DA 7–8281

NORTH CAROLINA (Con't.)

Location and Identifier			Area Code	Telephone
High Point		WB	(919)	883–1927 (Answered in Greensboro)
New Bern EWN (Simmons-Nott)		FSS	(919)	ME 7–2080
Raleigh-Durham RDN		FSS	(919)	787–4289
		WB	(919)	787–4092◆ 596–2446 (Durham Exchange) 275–6341 (Greensboro Exchange)
Rocky Mount RMT		FSS	(919)	442–7171
Wilmington ILM (New Hanover County)		FSS	(919)	762–7567
		WB	(919)	762–3240
Winston-Salem		WB	(919)	725–1731
		WB	(919)	724–2208◆

NORTH DAKOTA

Location and Identifier			Area Code	Telephone
Bismarck BIS		FSS	(701)	CA 3–8790
		WB	(701)	223–0920◆
Dickinson DIK		FSS	(701)	225–2989
Fargo		WB	(701)	232–1584◆
Grand Forks GFK (International)	DF	FSS	(701)	772–7201
Jamestown JMS		FSS	(701)	252–4350
Minot MOT (International)		FSS	(701)	833–8112
Williston		WB	(701)	572–3198◆ (0445–2045)

OHIO

Location and Identifier			Area Code	Telephone
Akron ACO		FSS	(216)	ST 4–1246/7
		WB	(216)	896–2246◆
Canton		WB	(216)	499–7933◆
Cincinnati CVG (Lunken)		FSS	(513)	321–1434
		WB	(513)	381–2300★
		WB	(513)	381–6706◆
(Greater Cincinnati)		WB	(513)	684–2129◆
		WB	(606)	283–3696◆
Cleveland CLE (Hopkins)		FSS	(216)	267–3700▬
		WB	(216)	267–3410★
Columbus CMH		FSS	(614)	237–8478▬
Dayton DAY		FSS	(513)	898–4639
		WB	(513)	898–4620◆ (Vandalia Exchange)
Findlay FDY	DF	FSS	(419)	GA 2–3237
Mansfield MFD		FSS	(419)	524–5323
		WB	(419)	522–7070 (0600–1800)
Toledo TOL (Express)		FSS	(419)	242–4171
		WB	(419)	385–4921◆
Youngstown YNG		FSS	(216)	539–5121
		FSS	(216)	856–4806
		WB	(216)	545–2447◆
Zanesville ZZV		FSS	(614)	452–8611

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

OKLAHOMA

Location and Identifier			Area Code	Telephone
Ardmore ADM		FSS	(405)	CA 3–6772
		FSS	(405)	DU 9–5441
Gage GAG	DF	FSS	(405)	923–2601
Hobart HBR		FSS	(405)	GE 6–4234
McAlester MLC	DF	FSS	(918)	GA 3–4091
Oklahoma City OKC (Wiley Post)		FSS	(405)	SU 9–7452
		WB	(405)	WI 3-9873★
		WB	(405)	685–6350◆
(Answered personally after PATWAS message.)				
Ponca City PNC		FSS	(405)	RO 5–5485
Tulsa TUL		FSS	(918)	TE 8–3316▬
		WB	(918)	835–2364★

OREGON

Location and Identifier			Area Code	Telephone
Astoria		WB	(503)	861–2722
Baker BKE		FSS	(503)	523–2961
Eugene EUG (Mahlon-Sweet)		FSS	(503)	343–7738
		WB	(503)	344–0141◆
Klamath Falls LMT (Kingsley Field)		FSS	(503)	882–4641
		WB	(503)	882–5060 (0800–1600)
Meacham		WB	(503)	Meacham 2 (0700–1500)
Medford MFR	DF	FSS	(503)	779–3241
		WB	(503)	773–1525◆
North Bend OTH		FSS	(503)	756–4916
Pendleton PDT		FSS	(503)	276–1761
		WB	(503)	276–1852
Portland PDX (International)		FSS	(503)	AT 2–7293▬
		WB	(503)	282–2285★
Redmond RDM (Roberts Field)	DF	FSS	(503)	548–2522
Salem		WB	(503)	363–6151
The Dalles DLS		FSS	(509)	PO 7–1187

PENNSYLVANIA

Location and Identifier			Area Code	Telephone
Allentown ABE (Bethlehem-Easton)		FSS	(215)	264–4539
		WB	(215)	264–2241
Altoona AOO (Blair)		FSS	(814)	793–3113
Bradford BFD (Bradford-McKean)		FSS	(814)	362–8860
DuBois DUJ		FSS	(814)	328–2231
Erie ERI (Port Erie)		FSS	(814)	833–1345
		WB	(814)	833–1991◆
Harrisburg HAR (Harrisburg-York State)		FSS	(717)	233–5987
		WB	(717)	233–7315◆

PENNSYLVANIA (Con't.)

Location and Identifier			Area Code	Telephone
Philadelphia PNE (N. Philadelphia)	DF	FSS	(215)	OR 3–8020
		WB	(215)	726–7511◆
		WB	(215)	726–3503★ (0600–2300)
Philipsburg PSB (Mid-State)	DF	FSS	(814)	342–0830
Pittsburgh AGC (Allegheny)		FSS	(412)	462–3707
		WB	(412)	462–5585★
		WB	(412)	462–5586★
Pittsburgh (Greater Pittsburgh)		WB	(412)	771–2855◆
Reading (General Spaatz Fld)		WB	(215)	376–4103◆ (0800–0900 Sun, 0700–noon Sat) (0700–1630 Mon–Fri)
Scranton		WB	(717)	457–5650◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)		FSS	(717)	457–9600
		WB	(717)	457–5650◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)		FSS	(717)	368–8547
		WB	(717)	368–1866◆

RHODE ISLAND

Location and Identifier			Area Code	Telephone
Providence PVD (Green)		FSS	(401)	RE 7–5300
		WB	(401)	737–0051◆

SOUTH CAROLINA

Location and Identifier			Area Code	Telephone
Anderson AND		FSS	(803)	225–7501
		FSS	(803)	225–5031◆
Charleston CHS	DF	FSS	(803)	747–5293▬
		WB	(803)	747–5778★
Columbia		WB	(803)	794–4054◆
✓Crescent Beach CRE (Myrtle Beach)		FSS	(803)	448–7187 (0800–2000) (Other hrs Florence)
Florence FLO	DF	FSS	(803)	662–8197
Greer GSP (Greenville)	DF	FSS	(803)	Greenville 239–3738▬ Spartanburg 585–5470

SOUTH DAKOTA

Location and Identifier			Area Code	Telephone
Aberdeen ABR		FSS	(605)	225–5264▬
Huron HON (W. W. Howes)		FSS	(605)	352–3806▬
Pierre PIR		FSS	(605)	224–5894
Rapid City RAP	DF	FSS	(605)	FI 2–2280
		WB	(605)	342–1160 (0200–2300 daily)

SOUTH DAKOTA (Con't)

Location and Identifier		Area Code	Telephone
Sioux Falls FSD (Joe Foss Fld)	FSS	(605)	ED 8-4841
	WB	(605)	338-1441◆
Watertown ATY	FSS	(605)	TU 6-4581

TENNESSEE

Location and Identifier		Area Code	Telephone
Blountville	WB	(615)	323-8752◆
Chattanooga	WB	(615)	892-3747◆
Crossville CSV (Crossville-Cumberland) DF	FSS	(615)	484-6711
Dyersburg DYR	FSS	(901)	285-4842 (0600-2200)
Jackson JKS (McKeller)	FSS	(901)	427-0611
Knoxville TYS (McGhee-Tyson)	FSS	(615)	577-0795
	WB	(615)	577-4805◆
(from Maryville)		(615)	982-3682
Maryville (See Knoxville)			
Memphis MEM DF	FSS	(901)	398-9260/9
	WB	(901)	398-2347★
Nashville BNA (Metropolitan)	FSS	(615)	254-6552/3
	WB	(615)	255-8732★
	WB	(615)	256-4468◆
Tri City TRI	FSS	(615)	323-7242

TEXAS

Location and Identifier		Area Code	Telephone
Abilene ABI	FSS	(915)	OR 4-6915▬
Alice ALI DF	FSS	(512)	MO 4-4291
Amarillo AMA (Air Terminal)	FSS	(806)	349-1608▬
Austin AUS (Robert Mueller)	FSS	(512)	GR 8-6695▬
Beaumont BPT (Jefferson County)	FSS	(713)	722-0288
	WB	(713)	722-7011◆
Brownsville BRO (Rio Grande Valley International)	FSS	(512)	LI 6-6421
	WB	(512)	542-8231◆
Childress CDS	FSS	(817)	WE 7-3892
College Station CLL (Easterwood)	FSS	(713)	VI 6-8784/5
Corpus Christi	WB	(512)	883-3008◆
Cotulla COT	FSS	(512)	TR 9-2417
Dalhart DHT	FSS	(806)	CH 9-2006
Dallas Love Field DAL	FSS	(214)	FL 2-8491▬
	FSS	(214)	FL 7-4343★
Del Rio	WB	(512)	775-2115
El Paso ELP (International)	FSS	(915)	778-6448▬
	FSS	(915)	778-4487★

TEXAS (Con't.)

Location and Identifier		Area Code	Telephone
Fort Worth FTW (Meacham)	FSS	(817)	MA 4-8471
	WB	(817)	334-3362★
	WB	(817)	334-3340◆
Galveston GLS (Scholes)	FSS	(713)	SH 4-3255
	WB	(713)	763-5670
Gregg County GGG (Longview)	FSS	(214)	MI 3-2612
Houston HOU (International)	FSS	(713)	MI 5-6693▬
	WB	(713)	644-1507★
√Junction JCT (Kimble Co.)	FSS	(915)	HI 6-3214 (0600-1800) (Other hrs San Antonio)
Lubbock LBB	FSS	(806)	PO 2-5802
	WB	(806)	762-2380◆
Lufkin LFK (Angelena County) DF	FSS	(713)	NE 4-3544
McAllen MFE (Miller Field)	FSS	(512)	MU 2-2878/9
Midland MAF (Air Terminal) DF	FSS	(915)	563-2611▬
Mineral Wells MWL	FSS	(817)	FA 5-5922
Palacios PSX	FSS	(713)	824-2218
Port Arthur	WB	(713)	722-7011◆
San Angelo SJT (Mathis)	FSS	(915)	655-5638
	WB	(915)	655-9780◆
San Antonio SAN (International)	FSS	(512)	TA6-9575▬
Tyler TYR (Pounds)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	445-1276◆
Waco ACT	FSS	(817)	PL 2-4811
	WB	(817)	754-1582◆
Wichita Falls SPS (Sheppard AFB/Wichita Falls Air Trml) DF	FSS	(817)	322-1302▬
Wink INK DF	FSS	(915)	LA 7-3351

UTAH

Location and Identifier		Area Code	Telephone
Bryce Canyon BCE	FSS	(801)	834-5311
Cedar City CDC DF	FSS	(801)	586-9131
√Delta DTA	FSS	(801)	4741 (0600-1800) (Other hrs Salt Lake City)
Milford	WB	(801)	387-2361 (0900-1700)
Salt Lake City SLC (Municipal No. 1) DF	FSS	(801)	524-5183▬
	FSS	(801)	364-5571★
Wendover	WB	(801)	665-2382 (0430-2015)

VERMONT

Location and Identifier		Area Code	Telephone
Burlington	WB	(802)	862-2475 (0600-2300)
Montpelier MPV (Barre-Montpelier) DF	FSS	(802)	223-2376
	FSS	(802)	878-3393 (from Burlington)

VIRGINIA

Location and Identifier		Area Code	Telephone
Blackstone BKT	FSS	(703)	292-3826 (0600–2200)
Bristol	WB	(615)	323–8242◆
Chantilly (Dulles)	WB	(703)	661–8526◆
Charlottesville CHO (Charlottesville/ Albermarle)	FSS	(703)	973-3909
Danville DAN	FSS	(703)	793–1163
Lynchburg (Muni-Preston Glenn	WB	(703)	239–0345◆ (0600–1930)
Newport News PHF (Patrick Henry)	FSS	(703)	877–0200
Norfolk	FSS	(703)	627–7084▬
Richmond RIC (Byrd Flying Field)	FSS	(703)	737–5249▬
Roanoke ROA (Woodrum)	FSS	(703)	362–1668▬

WASHINGTON

Location and Identifier		Area Code	Telephone
Bellingham BLI DF	FSS	(206)	734–6400
Ephrata EPH	FSS	(509)	SK 4–2361
Hoquiam HQM (Bowerman)	FSS	(206)	GE 9–3432
Olympia	WB	(206)	357–8386
Seattle SEA (Boeing)	FSS	(206)	RO 2–4000
	WB	(206)	682–3655★
Spokane SFF (Felts) DF	FSS	(509)	KE 5–2906
	WB	(509)	624–5674◆
Toledo TDO (Toledo-Winlock)	FSS	(206)	864–2371 (0500–2100)
Walla Walla ALW (City-County)	FSS	(509)	JA 9–1413
Wenatchee EAT (Pangborn) DF	FSS	(509)	TU 4–5654
Yakima YKM	FSS	(509)	GL 3–9862
	WB	(509)	GL 7–4371

WEST VIRGINIA

Location and Identifier		Area Code	Telephone
Beckley	WB	(304)	252–3171◆
Bluefield BLF (Mercer County)	FSS	(304)	325–6521
Charleston CRW (Kanawha)	FSS	(304)	342–1371▬
Elkins EKN (Randolph)	FSS	(304)	636–0810
	WB	(304)	636–1246◆
Huntington HTS (Tri-State)	FSS	(304)	453–3951▬
Martinsburg MRB	FSS	(304)	AM 3–9353

WEST VIRGINIA (Con't.)

Location and Identifier		Area Codes	Telephone
Morgantown MGW DF	FSS	(304)	292–3632
Parkersburg PKB (Wood County)	FSS	(304)	485–6421
	WB	(304)	422–3661 (0700–1400 Mon-Fri) (0700–1200 Sat)
Wheeling HLG (Ohio County)	FSS	(304)	CR 7–1252

WISCONSIN

Location and Identifier		Area Codes	Telephone
Eau Clare EAU	FSS	(715)	835–9642
Green Bay GRB (Austin Straubel) DF	FSS	(414)	494–7417▬
La Crosse LSE	FSS	(608)	785–1225▬
Lone Rock LNR (Tri-County)	FSS	(608)	583–2661
Madison MSN (Traux)	FSS	(608)	244–1033
	WB	(608)	249–6644◆
Milwaukee MKE (General Mitchell)	FSS	(414)	481–4414
	FSS	(414)	744–5860▬
	WB	(414)	744–7810★
Wausau AUW	FSS	(715)	845–7396

WYOMING

Location and Identifier		Area Codes	Telephone
Casper CPR (Air Terminal) DF	FSS	(307)	235–1555▬
Cheyenne CYS	FSS	(307)	638–9711
	WB	(307)	638–3642◆
Lander	WB	(307)	332–2718
Laramie LAR (General Brees Field)	FSS	(307)	745–4010
Rawlins RWL	FSS	(307)	324–3241
Rock Springs RKS DF	FSS	(307)	362–2121
Sheridan SHR (Sheridan County)	FSS	(307)	674–7426▬
Worland WRL DF	FSS	(307)	347–4122

PUERTO RICO

Location and Identifier		Area Codes	Telephone
San Juan SJU (Puerto Rico Intl)	IFSS		791–1780
	WB		791–0320

VIRGIN ISLANDS

Location and Identifier		Area Codes	Telephone
St. Croix STT (Christiansted, Alexander Hamilton)	FSS		773–1425

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Indicate Appropriate Part. Date ______________________________

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3-A, Notices to Airmen

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AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE 1966–67

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Part

Effective Date	Part 1	Part 2	Part 3	Part 3A
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12
January 5			December 16	December 16
January 19				January 9
February 2			January 16	January 16
February 15	January 20			
February 16				February 6
March 2			February 10	February 10
March 16				March 6
March 30			March 13	March 13
April 13				April 3
April 27			April 10	April 10
May 11				May 1

Editorial Staff Telephone Number, Area Code 202—WO 2–4063.

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930–1730 Sun. Up to 12,500′.

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Gadsden: 1000–1700 Weekends. Up to 12,500′.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500′.

ARIZONA

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800–1700. Up to 12,500′.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000′.

● **Yuma, Laguna Army Air Fld:** 5.5 mi WNW at Senator Wash. Dam, 1200–1700 Fris. Up to 20,000′ MSL.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Marked Tree: 2 mi S. Weekends SR–SS. Up to 12,500′.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200–SS. Up to 12,500′.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500′.

California City Arpt: Weekends and holidays. Up to 15,000′ MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000′ MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800′–15,000′, opening at absolute alts of 2000′–2500′. Center of drop zone lctd at 36°38′N, 121°46′W in Restricted Area R-2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000′.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000′.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500′ MSL.

Imperial Beach: Weekends. 0800–1200. Up to 1500′.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld. 7 days a wk. SR–SS.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Los Banos Arpt: 3.5 mi SE; edge of V–113. Suns SR–SS. Up to 10,000′.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000′ MSL.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000′.

Sonoma Valley: Weekends (occansionally during the wk.) 0800–SS. Up to 15,000′.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

Winters-Davis, Yolo Co. Intl Arpt: Weekends and occasionally week days. SR–SS. Up to 12,500′.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Daylgt hrs. Up to 8,000′.

Boulder: 3 mi NE of arpt. Wk-ends and holidays. 0800–SS. Up to 13,000′ AGL.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 18,000′ MSL.

Denver, C&S Arpt: 2.5 mi SE of Cherry Creek Dam. 0800–SS weekends and holidays. Up to 13,200′ MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays. Dalgt hrs. Up to 13,000′.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Loveland: 5 mi NE. Wk-ends and holidays. Up to 18,000′ MSL.

CONNECTICUT

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200–SS. Up to 12,500′.

Harwinton: 0800–dusk. Weekends. Up to 7200′.

PARACHUTE JUMPING AREAS

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500'. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000'.

FLORIDA

Clewiston, Airglades Arpt: Up to 15,000'. Daily SR-SS. Occasional ngts.

Deland Mun Arpt: Up to 7,000' daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500'.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

Homestead AFB: Occasionally. Up to 1,000' MSL.

Howey Arpt: Weekends. Up to 10,000'.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800-1600. Up to 15,000'. (2) 2 mi NW of Herlong Fld. Weekends. 0800-1600. Up to 7,500'.

Kissimmee Arpt: Daily and weekends. Up to 12,000'.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500'.

Ovita Arpt: Wk-ends. 0700-SS. Up to 12,000' MSL.

Palatka: Suns. 0800-1600. Up to 7500'.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500-SS. Up to 12,500'.

Umatilla Arpt: 32 NM 325° rad Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500'.

Zephyrhills Ahpt: Sundays, occasionally weekdays. Up to 12,500'.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500' AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500'.

Cohutta: 10 mi N Dalton. Weekends. 1200-1900. Up to 13,500'.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500'.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000'.

Fitzgerald: Daily, mostly on Sats and Suns. 0900-1700. Up to 12,500'.

Fort Benning: Daily. 0600-2000. Up to 18,000'.

Ft. Steward: Daily, Sats and Suns. Up to 15,000'.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935' MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000'.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500' AGL.

Waycross: Weekends. 1000-1600. Up to 12,500'.

IDAHO

Boise, Floating Feather Arpt: Wk-days. Hvy on wk-ends 0700-1900. Up to 12,000' MSL.

Weiser: 1500Z-SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000'.

Antioch: 4 mi E. Wk-ends and holidays.

Belleville, Flying Dutchman: 1 mi SW city. Wk-ends SR-SS. Up to 12,500' MSL.

Chicago, Hammond Arpt: Weekends. Up to 12,500'.

Clinton: ½ mi E. Weekends. 1200-SS. Up to 10,000'.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500' MSL.

Hebron Arpt: Wed, wk-ends, and holidays. Up to 7500' MSL.

Hillsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500'.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000'.

Pekin: 3 mi S. Weekends. 1200-SS. Up to 15,000'.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500'.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500'.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500'.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500'.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000'.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000'.

Des Moines: 3 mi radius of Camp Dodge. SR-SS wk-ends. 1500-SS wk-days. Up to 12,500' MSL.

Mechanicsville: 5S, 2 mi radius. Weekends and occasionally wk days SR-SS. Up to 15,000'.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500'.

Northwood: Weekends. 0900-SS. Up to 13,000'.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500'.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000'.

KANSAS

Concordia: 3 mi SE. SR-SS wk-ends. Up to 10,500' MSL.

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000'.

Fort Leavenworth Military Reservation: Weekends and holidays Occasionally weekdays. Up to 12,500'.

Fort Riley Military Reservation: Sky diving operations to 10,000', weekends and holidays.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500'.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000'. Occasionally ngts.

Manhattan: 2 mi SE of Tuttle Creek Dam. SR-SS wk-ends and holidays. Up to 12,500' MSL.

Oxford: Weekends. 1300-1900. Up to 13,000'.

Topeka, Skyranch Arpt: SR-SS wk-ends and holidays, occasional wkdays. Up to 12,500' MSL.

KENTUCKY

Ashland, Boyd Co.: Wed and wkends.

Fort Knox: 3 mi SW of Godman AAF weekends and holidays, 1300-1700. Up to 10,000'.

LOUISIANA

Abbeville: Weekends. 0900-SS. Up to 17,000'.

Alexandria, (England AFB): 0700-2300 weekedays; 0900-1800 weekends.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500'.

Bodcaw: SR-SS wk-ends. Up to 13,000' MSL.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900-SS. Up to 12,000'.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000'.

Fort Polk, Polk AAF: 2 nmi radius.

Hammond: SR–SS seven days a wk. Up to 15,000′.

Houma—Terrebonne Arpt: Weekends SR–SS. Up to 15,000.

Mansfield Arpt: SR–SS wk-ends. Up to 13,000′ MSL.

Pollock Arpt: SR–SS wk-ends; 1200–SS wkdays. Up to 13,000′ MSL.

Youngsville: Weekends. 0900–SS. Up to 13,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland Mun: Up to 12,000′.

Edgewood: 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

Frederick Mun: Glider activities wkends and holidays.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 2200. Up to 20,000′.

Patuxent River NAS: On V–213. 2200–2400 weekdays; 1500–2100Z Sat, Sun and holidays. Up to 12,500′.

Stevensville, Carroll's Arpt: Weekends. Up to 12,500′.

MASSACHUSETTS

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Day time only. Up to 15,000′.

Orange Muni Arpt: Day time only. Up to 15,000′.

Pepperell Arpt: Day time only. Up to 15,000′.

Tauton Muni Arpt: Day time only. Up to 15,000′.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500′.

E. Tawas, Iosco Arpt: Up to 13,500′.

Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500′.

Gaylord: Weekends. Dawn-Dusk. Up to 12,500′.

Grand Rapids (So. Kent Fld): Weekends. 0900–dusk. Up to 12,000′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Lake City: 6mi E, 1 N. Weekends. SR–SS. Up to 12,500′.

LaSalle: 5 mi S of Custer Arpt. 0900–SS. Up to 12,500′.

Marksfield, Lawton: Sat and Sun. 0900–SS. Up to 15,000′.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Midland: Sat, Sun, Wed. SR–SS. Up to 12,500′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

Nunica: 1 mi SE. Up to 15.000′.

Saginaw Arpt: Weekends. Up to 13,000′.

Tecumseh Arpt: Daily. Up to 17,500′.

Traverse City: Weekends. SR–SS. Up to 12,500′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Monticello, Flynn Arpt: Wk-end. Up to 12,000′ AGL.

Rosemount: 3 mi SE. Up to 2500′.

Stanton, Carleton Arpt: Wed 1600–SS during June; July and Aug wk-ends 0800–SS. Up to 14,500′ AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000′.

Jackson: 10 mi SW. 0900–SS. Weekends. Up to 12,500′.

Louisville: 5 mi S. Weekends. Up to 12,500′.

Lucedale, Farmco Arpt: Weekends and holidays SR–SS. Up to 12,500′ MSL.

Ocean Springs, Gulfpark Arpt: SR–SS Sats, Suns, holidays and occasional wk days. Up to 12,500′ AGL.

MISSOURI

Columbia Muni Arpt: Weekends and holidays. Up to 12,000′ MSL.

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lebmaster Arpt: Weekends and holidays. Up to 11,000′.

Valleroy: Weekends. 1200–1800. Up to 8000′.

Vichy, Rolla Natl Arpt: Daily SR–SS. Up to 12,500′.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800–dusk. Up to 10,000′.

Glendive: Sat and Sun, occasionally wk days.

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Kalispell: Weekdays 1700–dark, weekends SR–SS. Up to 13,000′.

Laurel: Sat, Sun. SR–SS. Up to 16,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500′ MSL.

Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500′.

Silver Springs Arpt: Daily SR–SS. Up to 12,500′ MSL.

NEW HAMPSHIRE

Hollis: 3 mi SW Boire Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600′.

Hooksett: Tues, Sat Sun, and holidays. 0900–2100. Up to 12,500′.

Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900–dusk. Up to 5,200′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500′.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

Manville, Decker Arpt: ½ mi SW rnwy. Dawn to dusk. Up to 15,000′.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500′.

NEW MEXICO

Alamogordo Muni Arpt: Fri, Sat, Sun and holidays SR–SS. Up to 12,500′ AGL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000′.

Belen: 3½ mi SE. Suns SR–SS. Up to 12,500′ AGL.

Roswell Arpt: 8 mi W. Wk-ends 0700–1400. Up to 7,500′ MSL.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.

Gardiner Airfield: 1 mi radius wk-ends and holidays SR–SS. Up to 15,000′ MSL.

Greene Arpt: Within 5 mi radius. Daily 1100Z–SS. Up to 12,500′.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500′.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MSL.

Randolph Arpt: Daily. Up to 15,000′.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000′.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500′ MSL

Wallkill (Galesville): Every day of wk. 1000–2130. Up to 14,000′.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500′.

Charlotte, Brockenborough Arpt: 5 mi N. Wed and Fri 1500–SS, Sat and Sun 1200–SS. Up to 14,000′.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900–1630. Up to 13,000′.

New River MCAF: On V157 1100–0300 daily from 23,500′.

Oak Grove OLF: Sat, Sun and holidays from 0800–1830. Up to 15,000′.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000′.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12,000′.

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

Ada Arpt: Wk-ends SR–SS. Up to 12,500′ AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000′.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500′.

Brunswick Arpt: 1300–0100Z daily. Up to 8,500′ MSL.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000′

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000′.

Darbydale: Daily 1000–SS. Up to 12,500′ AGL.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500′ AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.

Galloway, Columbus Arpk: Wkends, holidays dalgt hrs and Wed 1600–SS.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.

Lenox Arpt: Sat and Sun. 0900 2100 EDST. Up to 12,500′.

Lima: Weekends. 1200–SS. Up to 12,500′.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000′ MSL.

Oberlin: Daily 1600-dark. Up to 12,500′.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500′ AGL.

Piqua Arpt: Up to 12,000′. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500′.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500′.

South Dayton Arpt: Up to 18,000′. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.

Valley City: 3.5 mi W. Wed 2200–0100Z. Up to 12,500′ AGL.

Van Wert: Weekends 1200–SS. Up to 12,500′ AGL.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500′.

Frederick: Weekend. Dawn-dusk. Up to 10,000′.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Albany: 1½ mi NE of arpt. Weekends 1000–SS. Up to 13,000′ MSL.

Ashland Arpt: Dalgt. wk ends, holidays and evenings. Up to 9,000′.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 1 mi N and 3 mi SE. Periodically June thru Sept. From 2000′ AGL.

Creswell: 2 mi SW. Thurs, Fri, Sat, 1600–2030. Up to 15,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR–SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR–SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

Portland: ½ mi S and 2 mi E of Scholl Arpt, Orchards, Wash.

Portland: 4 mi N Aurora Flight Strip, Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

Coudersport, Cherry Springs Arpt: Up to 10,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

● **Easton, Bethlehem–Easton Arpt:** 1300-dark weekends and holidays. Up to 7000′.

Erie: 12 mi E. Wk-ends and holidays. SR–SS. Up to 12,500′ AGL.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 15,000′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Maytown, Donegal Arpt: 2 mi NE. Weekend SR–SS. Up to 15,000′ MSL.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

New Hanover Arpt: Most activities weekends. Up to 15,000′ MSL.

Quakertown, Upper Bucks Co. Arpt: 7 mi E. Suns 0900–SS. Up to 12,500′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Ricenn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

Darlington Co. Arpt: Thurs, Sat and Sun SR–SS. Up to 15,000′ MSL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR-SS. Up to 12,500′.

Pierre: 4 mi NW arpt. Wk-ends SR–SS. Up to 10,000′ MSL.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

Pierre: 4 mi NW arpt. Wk-ends SR–SS. Up to 10,000′ MSL.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens,McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Alvarado: 1 mi N of City. Wkdays 1200–SS. Wk-ends SR–SS. Up to 15,000′ AGL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Bonham Arpt: Weekends SR–SS. Up to 12,500′.

Cedar Hill: Weekends SR–SS. Up to 12,500′.

Clear Springs Arpt: Suns and holidays, SR–SS. Up to 14,000′ AGL.

Commerce Arpt: Weekdays only SR–SS. Up to 10,000′.

Dickenson, T & C Drop Zone Arpt: 1 mi radius. Up to 12,500′

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AAF. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampassas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

Littlefield Mun: Suns. SR–SS. Up to 12,500′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

San Antonio, Northeast Arpt: Suns and holidays SR–SS. Up to 12,500′ AGL.

San Marcos Arpt: Sat, Sun, occasional weekdays SR–SS. Up to 12,500′ AGL.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

Green River: 6 mi NNE of arpt. Daily SR–SS. Up to 10,000′ MSL.

Hill AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

●**Chesapeake, Navy Fentress Fld:** Daily 1000–1400Z. Up to 10,000′.

Forest, New London Arpt: Daily. Up to 11,000′.

Hanover Arpk: 12 nmi N of Richmond VOR on radial 352. Daily and occasionally ngts. Up to 13,000′ MSL.

Hopewell Arpt: Weekends. Up to 9000′.

Manassas: On the Herndon 195 radial 15 mi. Weekends, Wed evenings and holidays. Occasional ngt jumping. Up to 12,500′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000′.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Muni Arpt: Cont. Up to 12,000′.

Target Fld: 2 mi NNE of Manassas. Sat, Sun, and holidays SR–SS. Up to 13,000′ MSL.

●**Virginia Beach, NAS Oceana:** Sat, Sun 1600–2400Z. Up to 10,000′.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

Bellingham Arpt: 6NE. 7days per wk. Up to 12,500′ AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000′ MSL.

Coupeville: 1 mi S. Weekends and holidays, occasional weekday afternoons. Up to 12,500′ AGL.

Issaquah-Seattle Skyport: Daily SR–SS. Up to 24,000′ AGL.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 6 mi N SR to 1 hr after SS. Up to 12,000′ AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500′.

WEST VIRGINIA

Morgantown Arpt: 2 mi SW on radial 230°. Tues., Thurs., Sat and Sun. SR–SS.

WISCONSIN

Antigo Arpt: 2 mi S. Weekends SR–SS. Up to 12,500′ AGL.

LaCrosse, Maple Grove Arpt: Tues and Thur 1700–SS. Sat and Sun 1000–SS. Up to 7200′.

Lake Geneva Wal-Co. Farms Arpt: Tues, Wed, Fri 1800–2030. Up to 7500′. Sat, Sun 1200–2030. Up to 12,500′.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500′ MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500′ AGL.

Oskkosh: 8 mi NW. Weekdays 1700–1900. Weekends 1000–2100. Up to 13,000′ AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000′.

WYOMING

Laramie: 2 mi S. Weekends SR–SS. Up to 20,000′ MSL.

Sheridan Muni Arpt: Weekends and holidays SR–SS. Up to 16,500′ MSL.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston	V2 GDM (L-25)
Kennedy	V91 RVH (L25)
LaGuardia	V91 V487 Stamford (L25)
Newark	V489 Budd Lake (L25)

ALBUQUERQUE

Denver	Aden V19W SAF V83 PUB V19E IOC (L-4, 6)
Kansas City	Aden V19W SAF V19 LVS V190 DHT V234 V280 Farley (L-6)
Los Angeles	GNT V12 EED V208 TNP V264S ONT. (L-4, 3)
Phoenix	GNT V190N SJN V190 Lake. (L-4)

ATLANTA METRO AREA

Birmingham	Chattahoochee V18 ANB (L20, 14)
Charlotte	Conyers V66 FML (L-20)
Cincinnati	Crabapple V97 Dry Ridge (L-20, 22)
Chicago	Crabapple V51 CGT (L-14, 20, 21, 23)
Dallas	Chattahoochee V18 MLU V94 V477E Forney (L20, 14, 18, 17, 13)
Dulles	Conyers V66 FML V454 LVL V155 GVE V39E Brandy (L20-22)
Houston	Chattahoochee V18 MEI V194 MCB V222 LCH V222N Monument (L20, 14, 18)
Kennedy	Conyers V66 FML V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
Jacksonville	Griffin V243 AYS V243W Callahan (L20, 18)
La Guardia	Conyers V66 FML V454 LVL V157 RIC V20 V213 RBV (L-20, 22, 24)
Memphis	Chattahoochee V18 BHM V176N HLI (L20, 14)
● Miami	Brooks V97 ABY V159 V159W CTY V7 FMY V35 MIA (L20, 18, 19)
Newark	Conyers V66 FML V454 V157 V20 V213 V29 V433 Rocky Hill (L-20, 22, 24)
Orlando	Griffin V243 AYS V157 OCF V159W Clermont (L20, 18, 19)
Pittsburgh	Crabapple V97 TYS V115 PKB V119 HLG (L-20. 22, 24)
Tampa	Brooks V97 ABY V159 V159W CTY V7 Homo V35E Hazel (L20, 18, 19)
Washington	Conyers V66 FML V454 LVL V157 Ironsides (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta	BHM V18S Palmetto (L14, 20)
New Orleans	TCL V18 MEI V455 HBG V455W Madison (L14, 18 17)
Pittsburgh	GAD V115E CHA V115 PKB V119 HLG (L-14, 22, 24)

BOSTON METRO AREA

Albany	V14 Melrose (L-25)
Buffalo	V14 Bellona V31 ROC V142 Grant (L-25)
Cleveland	V14 ALB V72 Hadley V232 Mentor (L-25, L-24)
Kennedy	PUT V475E V16 RVH (L25)

BOSTON METRO AREA—Continued

LaGuardia	Millbury V3 V445 Stamford (L25)
Newark	Millbury V3 V292 Budd Lake (L25, 24)
Philadelphia	Millbury V3 Warrington (L25, 24)
Rochester	V14 Bellona V31 Fishers (L–25)
Washington	PUT V308 North Barch (L25, 24)
Windsor Locks	PUT PUT 295 rad Meadow, (L25)

BUFFALO

Boston	GEE V14 GDM (L–12, L–25)
Cleveland	Langford V464 DKK V14 Mentor (L–12, 24)
Detroit	V2 QO V90N Dolphin V90 QG (L–12, 23)
Kennedy	V252 BGM V270 V34 CMK BDR RVH (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 Liberty (L–12, 25)
Midway	V84 LAN V218 Surf (L–12, 23)
Newark	V252 GEE V147 TOH V226 Budd Lake (L12–25)
O'Hare	V84 OBK (L12, 23)
Philadelphia	V33 PSB V238 ESR (L–12, 24)
Pittsburgh	V115 EWC (L–12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn DCA (L12–24)

CHARLESTON, W. VA.

Cincinnati	V128 California (L22)
Cleveland	V115 PKB V59 V427 V40 Sharon (L22, 24, 23)
Columbus	V133 V214 Hanover (L–22, 23)
Louisville	V128 YRK V44 FLM V502 (L–22, 21)
Pittsburgh	V115 PKB V119 HLG (L–22, 24)
Washington	V4S EKN V4 HRN (L22, 24)

CHARLOTTE

Atlanta	CLT V194 OCR (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 BGT (L–20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 RBV (L–20, 22, 24)
● Miami	FML V37 ALD V157 LAL V7 FMY V35 MIA (L20, 18, 19)
Washington	New London V454 LVL V157 Ironsides (L–20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	EON V171 SCJ V243 Kennesaw (L23, 21, 14, 20)
Denver	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	Musky V100 ELX V218 Troy (L23, 12)
Dulles	EON V144 Blue Ridge (L23, 24)
Kennedy	V6 SEG V170 V276 RBV (L23, 24)
Indianapolis	EON V128 (L–23)
La Guardia	V6 V433 Liberty (L–23, 24)
Los Angeles	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	Big Run V173 CAP V9 Kerrville (L–23, 21, 14)
● Miami	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 FMY V35 MIA (L23, 21, 14, 20, 18, 19)
Minneapolis	Malta V218 RST V82 FGT (L23, 11, 10)
Newark	V6 SEG V30 Rocky Hill (L–23, 24)
Philadelphia	V6 PSB V238 ESR (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 EWC (L23, 24)
San Francisco	Malta V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
St. Louis	Big Run V191 V14 Staunton (L23, 21)
Tampa	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 Homo V35E Hazel (L23, 21, 14, 20, 18, 19)
Tulsa	API V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	EON V144 ESL V4 HRN (L23, 24)

From Midway only

Cleveland	Crib V6 SKY V232 Vermillion (L23)
Des Moines	API V8 CVA V233 CID V172 TNU (L23–11)
Kansas City	API V10 Kearney (L–23, 11, 21)
Metro Wayne Co	Crib V10 Milan (L23)
Omaha	API V8 CVA V233 CID V172 EOL (L23, 11)
Willow Run	Crib V10 Milan (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 Vermillion (L–23)
Des Moines	V172 TNU (L–23, 11)
Kansas City	V84 BDF V10 Kearney (L–23, 11, 21)
Metro Wayne Co	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Omaha	V172 EOL (L23, 11)
Willow Run	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Windsor	V100 V218 Troy (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 OCR (L–21, 22, 20)
Charleston W. Va	V128S YRK V128 (L22)
Chicago	V97 CGT (L–21, 23)
Detroit (City)	V275 SVM (L21, 23)
Indianapolis	V97 (L–21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 Liberty (L22–24)
Louisville	V47 ABB V51 (L–21)
Metro Wayne Co	V275 Milan(L21, 23)
● Miami	V47 ABB V51 Crabapple V97 ABY V159 V159W CTY V7 FMY V35 MIA (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 Rocky Hill (L22–24)
Pittsburgh	V128S YRK V44 PKB V119 HLG (L22–24)
St. Louis	V47 ABB V44 Mounds (L21)
Willow Run	V275 Milan (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 GDM (L–23, 24, 12, 25)
Buffalo	V14N Crystal Beach (L–23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L–23, 22, 20)
Chicago	V126 CGT V7 Niles (L–23)
Columbus	V443 TVT V43 APE (L–23)
Dayton	V14 ATO V435 ROD (L–23)
● Detroit (City)	Crib V103 CLE 345 rad Comber (L23)
Kennedy	ACO V30 SEG V170 V276 RBV (L24)
Indianapolis	CLE V14 (L23)
La Guardia	ACO V30 CIP V6 Amboy V433 Liberty (L–24)
Metro Wayne Co	V42E V103 Lasalle (L23)
● Miami	V443 V133 V35 V185 Dover V157 LAL V7 FMY V35 MIA (L23, 22, 20, 18, 19)
Newark	ACO V30 Rocky Hill (L–24)
Philadelphia	ACO V30 PSB V238 ESR (L–24)
Pittsburgh	ACO V297 EWC (L–24)
Rochester	V14N ERI V14 BUF V2 Clifton (L–23, 24, 12)
Washington	ACO V103 IRL V37 Millsboro V92 FRR V4 HRN (L–24)
Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L-23, 24, 22)
Indianapolis	Grindell V210 (L-23)
LaGuardia	APE V12 V106 V6 V433 Liberty (L23, 24)
Pittsburgh	APE V12 HLG (L-23, 24)
St. Louis	V12N V210 Staunton (L23, 21)
Toledo	V38 FDY V47 (L-23)
Washington	APE V144 ESL V4 HRN (L-23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	Lakeside V114 Claude (L-13)
Atlanta	DAL V278 V18S Palmetto (L13, 14, 20)
Dulles	DAL V278 V16 BNA V140 MOL V251 V174 Blue Ridge (L13-14-21-22)
El Paso	Joshua V94 INK V16 RIO (L-13, 4)
Houston	Trinity Fork V477 LOA V477W Fairbanks (L-13, 17)
Los Angeles	Joshua V94 INK V16 SFL V94 GBN V461 BXK V16 ONT (L-13, 4, 3)
Memphis	DAL V278 TXK V16 Walls (L13-L14)
Midway	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
New Orleans	DAL V114 French (L-13, 17)
O'Hare	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
San Antonio	Red Oak V15E ACT V17 AUS V17W Bergheim (L-13, 15)
Tulsa	DAL V15 Gunter PNX MLC V131 OKM Haskell; or DAL V15 OKM Haskell (L-13, 6)
Washington	DAL V278 V16 BNA V140 MOL V16N GVE V16 Ironsides (L-13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 CGT (L-23)
Cleveland	V275 V47W FDY V8 MFD V246 Sharon (L23)
Detroit/City	V275 SVM (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V275 Milan (L23)
Willow Run	V275 Milan (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N Langston (L23-21-6)
Washington	V12 APE V144 ESL V4 HRN (L-23, 24)

DENVER METRO AREA

Chicago	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT (L-8, 11, 23)
Kennedy	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX RBV (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 RBV (L12, 24)

From City and Windsor only

Newark	V221 ERI V170 SEG V30 Rocky Hill (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 ESR (L-12, 24)
Ft. Wayne	SVM V170 Leslie V45 JXN V221 (L-23)
Midway	SVM V170 V84 V7E V116 (L-23)
Milwaukee	SVM V170 PMM V30S Pike (L-12, 23)
O'Hare	SVM V170 V84 OBK (L-23)

From Metro or Willow Run only

Buffalo	V221 V90 V14N Crystal Beach (L-12)
Cleveland	Stripe V297 Vermillion (L23)
Ft. Wayne	Dexter V221 (L-23)
Midway	Pinckney V170 V84 V7E V116 (L-12, 23)
Milwaukee	Dexter V116 JXN V45 Leslie V170 PMM V30S Pike (L-12, 23)
O'Hare	Pinckney V170 V84 OBK (L-12, 23)
Pittsburgh	Stripe V133 Bay V6 V42 ACO V297 EWC (L23, 24)
Rochester	V221 V90 V14 V2 (L-12)
Washington	Stripe V133 ZZV V144 ESL V4 HRN (L23, 24)

EL PASO

Dallas	HUP V66 MAF V16S BGS V16 ABI V66 Denton V114 Lakeside (L-4, 13)
Los Angeles	EWM V94 GBN V461 BXK V16 ONT (L-4, 3)
San Antonio	HUP V198 Boerne (L-4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 PRR (L-19)

HOUSTON METRO AREA

● Atlanta	LaPorte V20S LCH V20 LFT V70 MVC V20 (L17, 18, 14, 20)
Dallas	Gulf Coast V477E Forney (L-17, 13)
New Orleans	LaPorte V20S LCH V20 Turtle (L-17)
San Antonio	Andrau V222 Hunter (L-17, 15)

INDIANAPOLIS

Detroit	V11 SVM (L-23)
Evansville	V11W SCJ V11E (L-21)
Kennedy	V50 DAY V12 V106 V276 RBV (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V1 V10 Milan (L23)
Midway	V97W V97 CGT (L-23)
Newark	V50 DAY V12 V106 V30 Rocky Hill (L23, 24)
Pittsburgh	V50 DAY V12 HLG (L-23, 24)
St. Louis	V14 Staunton (L21)
Willow Run	V11 V10 Milan (L23)

JACKSONVILLE

Atlanta	Kings V5E DBN V5 McDonough (L18, 20)
Dulles	Clinch V3E SAV V3 RDU V155 GVE V39E Brandy (L18-20-22)
Kennedy	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 BGT (L-18, 20, 22, 24)
LaGuardia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 RBV (L-18, 20, 22, 24)
Miami	Blue Jacket V267 New River (L-19)
Newark	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 Rocky Hill (L-18, 20, 22, 24)
Norfolk	Clinch V3E SAV V437 CHS VI MYR V213 RMT V189 FKN V266 Burdette (L18-20-22)
Orlando	Blue Jacket V267 Woodruff (L-18, 19)
Philadelphia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 OOD (L-18, 20, 22, 24)
Washington	Clinch V3E SAV V3 RDU V155 LVL V157 Ironsides (L-18, 20, 22)

PREFERRED ROUTES

KANSAS CITY METRO AREA

Midway	Excelsior V116 JOT (L-21, 23)
O'Hare	Excelsior V116 JOT (L-21, 23)
St. Louis	BSP V12 MTS (L-21)
Wichita	Bonner Springs V12 De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 Liberty (L-21, 22, 24)
Newark	V4 CRW V106 V30 Rocky Hill (L-21, 22, 24)

MEMPHIS

Atlanta	HLI V176 BHM V18S Palmetto (L14, 20)
Dallas	Prichard V16S PBF V16 DAL (L13–L14)
Dulles	Moscow V16S GHM V16 V140 MOL V251 V174 Blue Ricge (L14, 21, 22)
Midway	Cuba V9W V9 JOT (L-14, 21, 22)
New Orleans	Savage V9W GRW V9 Madison (L14–L17)
O'Hare	Cuba V9W V9 JOT (L-14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 Ironsides (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

● Atlanta	MIA V157 AMG V5 McDonough (L19, 18, 20)
●. Charlotte	MIA V157 ALD V37 FML (L19, 18, 20)
● Chicago	MIA V157 AMG V51 DBN V267 TYS V97 CGT (L19, 20, 22, 21, 23)
● Cleveland	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 Sharon (L19, 20, 22, 21, 23)
● Detroit (city)	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 QG (L19, 20, 22, 21, 23)
Dulles	Guppy drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E **Brandy** (L19–L20–L22)
Habana	Gary V51 EYW drct SF/Rbn or PRR/Rbn B19 EYW drct SF. Rbn (L19)
Kennedy	Guppy drct Halibut Control 1150 ILM V1 BGT (L-19, 20, 22, 24)
● Jacksonville	Martin V295 VRB V3 DAB V3E Shiloh (L19)
La Guardia	Guppy drct Halibut Control 1150 ILM V1W V213 RBV (L-19, 20. 22, 24)
● Metro Wayne Co.	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)
Newark	Guppy drct Halibut Control 1150 ILM V1 V29 V433 Rocky Hill (L-19, 20, 22, 24)
● Pittsburgh	MIA V157 ALD V37 AGC (L19, 20, 22, 24)
● Tampa	MIA V97 Gibson (L19)
Washington	Guppy drct Halibut Control 1150 ILM V1 ISO V157 Ironsides (L-19–L20–L22)
● Willow Run	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 API; or Taylor V7E V116 Surf (L-12, 23)
Detroit	V2S MKG V2 SVM (L-12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 RBV (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	Prescott V2 V97 V171 V6 API (L-10, 11, 23)
O'Hare	Prescott V2 V97 Lakewood (L-10, 11, 23)

MONTGOMERY

Washington	TPE V154 MCN V56 AGS V155 V157 Ironsides (18, 20, 22)

NASHVILLE

LaGuardia	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V213 RBV (L21, 22, 24)
Newark	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 Rocky Hill (L21, 22, 24)

NEW ORLEANS METRO AREA

● Atlanta	PCU V70 MVC V20 Tyrone (L17, 18, 20)
Birmingham	PCU V455 MEI V154 V209 BWA drct BHM/LOM (L-17, L-18, L-14)
Dallas	Walker V-114N AEX V-114 GGG V-94 V-477E Forney (L-17, 13)
Dulles	PCU V70 MVC V20 SBV V39 GVE V39E Brandy (L-17, 18, 20, 22)
Houston	TBD V20S LFT V20 LCH V222N Monument (L-17)
Kennedy	PCU V70 MVC V20 V213 ENO V44 Barnegat (L-17, 18, 20, 22, 24)
Memphis	PCU V9E MCB V9 GRW V9E Independence (L-14)
Newark	PCU V70 MVC V20 V213 ENO V29 V433 Rocky Hill (L-17, 18, 20, 22, 24)
Washington	PCU V70 MVC V20 SBV V39 GVE V16 Ironsides (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	Sound POU V487 Brainard (L-25)
Bradley	Sound V433 Waterbury (L25)

From Newark only

Albany	SAX POU V487 Brainard (L-25)
Atlanta	SBJ V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	SBJ V3 V93 (L24)
Boston	SAX POU V58 V167 Sterling (L25)
Buffalo	TVE V188 V147 V36 Dale (L-25)
Cincinnati	SBJ V3 V166 V4 V174 V128 California (L24–22)
Cleveland	TVE V232 Mentor (L-24, 23)
Detroit (City)	TVE V188 TOH V147 V116 QG (L24, 23)
Detroit Metro Area	TVE V188 V147 V116 QG (L24, 23)
Dulles Int'l	SBJ V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	TVE V232 ETG V226 V119 V210 (L24–23)
Jacksonville	SBJ V3 V29 SBY V1 V437 SAV V3 St. Marys (L24, 22, 20, 18)
Louisville	SBJ V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co.	TVE V188 TOH V147 V116 QG (L24, 23)
● Miami	SBJ V3 V29 SBY Y1 Control 1150 Porpoise PBI V3 Bradley (L24, 22, 20, 19)
Nashville	SBJ V3 EMI V39 V140 Lebanon (L24, 22, 14)
New Orleans	SBJ V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18)
Norfolk Metro Area	SBJ V3 V29 SBY V1 CCV (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 Warrington (L24)
Pittsburgh	TVE V232 ETG V226 EWC (L-24)
Providence	SAX POU V58 V130 Lafayette (L25)
Rochester	SAX V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	SAX V483 (L-25)
Toledo	TVE V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	TVE V188 TOH V147 V116 QG (L24, 23)

From Kennedy only

Atlanta	Dutch V308 ENO V213 V20 SPA V20N OCR (L24, 22, 20)
Baltimore	Dutch V308 ENO V268 (L24)
Boston	HTO V139 HTM (L25)
Buffalo	HUO V126 V36 Dale (L-25)
Cleveland	HUO V126 V58 IPT V188 JFN V14 Mentor (L25, 24, 23)
Detroit	HUO V126 V116 QG (L25, 24, 23)
Dulles	HUO V39 V162 HAR V223 Sugar Loaf (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	Dutch V139 V1 V437 V3 St. Marys (L-24, 22, 20, 19)
Louisville	HUO V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
Metro Wayne Co.	HUO V126 BFD V172 V188 V103 Lasalle (L25, 24, 23)
● Miami	Dutch V139 V1 Control 1150 Porpoise PBI V3 Bradley (L24, 22, 20, 19)
Montreal	Sound POU V487 (L-25, 26)
New Orleans	Dutch V308 OTT V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	Dutch V139 CCV (L-24, 22)
O'Hare	HUO V126 V116 V170 V84 OBK (L25, 24, 23)
Philadelphia	Dutch V312 CYN V16 V239 OOD (L24)
Pittsburgh	HUO V126 AVP V58 V226 EWC (L-25, 24)
Providence	HTO V139 (L25)
Rochester	HUO V249 V34 Fishers (L-25)
Syracuse	HUO V483 (L25)
Toronto	HUO V126 AVP V36 (L-25, 12)
Washington	Dutch V308 North Beach (L24, 18)
Willow Run	HUO V126 AVP V116 QG (L25, 24, 23)

From LaGuardia only

Atlanta	Paterson V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	Paterson V3 V93 (L24)
Boston	Sound V467 MAD V475E V16 BOS (L25)
Buffalo	SAX V36 Dale (L-25, 12)
Cincinnati	Paterson V3 V166 V4 V174 V128 California (L24–22)
Cleveland	SAX TOH V188 JFN V14 Mentor (L-24, 23)
Columbus	SAX TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	SAX TOH V147 V116 QG (L24, 23)
Dulles Intl	Paterson V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	SAX TOH V226 V119 V210 (L24, 23)
Louisville	Paterson V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	Sound POU V487 (L-25)
Metro Wayne Co.	SAX TOH V147 V116 QG (L24, 23)
Nashville	Paterson V3 EMI V39 V140 Lebanon (L24, 22, 14)
O'Hare	SAX TOH V147 V116 V170 V84 OBK (L24, 25)
Philadelphia	Paierson V3 Warrington (L24)
Pittsburgh	SAX TOH V226 EWC (L24)
Providence	Sound V467 V475E V130 Lafayette (L24, 25)
Rochester	SAX V116 AVP V29 V423 V34 Fishers (L25)
Toronto	SAX V36 (L-25, 12)
Washington	Paterson V3 ESR V140 Dayton GTN/Rbn DCA (L24)
Willow Run	SAX TOH V147 V116 QG (L24, 23)

NORFOLK METRO AREA

Charlotte	CVI V194 RDU V66 Midland (L22, 20)
Dulles	Farnham V286 Brandy (L22)
Kennedy	CCV V1 BGT (L-22, 24)
Jacksonville	CVI VI CHS V437 SAV V3 St. Marys (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 RBV (L-22, 24)
Newark	CCV V1 SBY V29 V433 Rocky Hill (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 OOD (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 Ironsides (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	Prague V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	Crescent V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 Brooks (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E Shiloh (L-19)

PHILADELPHIA METRO AREA

Baltimore	EWT V166 V93 (L-24)
Boston	MIV 101 rad V139 HTM (L24, 25)
Buffalo	Boyer V170 SLT ELZ V119 Burns V36 Dale (L-25)
Cleveland	Boyer V162S HAR V12 AGC V8 BSV V40 Sharon (L-24, 23)
● Detroit (City)	Boyer V162S V12 V37 V103 CLE 345 rad Comber (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 Sugar Loaf (L24)
Kennedy	Columbus V123 RBV (L-24)
Jacksonville	MIV 205 rad ATR V1 V437 V3 St. Marys (L24, 22 20, 19)
LaGuardia	Columbus V213 RBV (L-24)
Metro Wayne Co.	Boyer V162S V12 V37 V103 Lasalle (L24, 23)
● Miami	MIV 205 rad ATR V1 Control 1150 Porpoise PBI V3 Bradley (L28, 27, 19)
Newark	V433 Rocky Hill (L-24)
Norfolk	MIV 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	Boyer V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	EWT V166 V140 Dayton GTN/Rbn DCA (L24)
Willow Run	Boyer V162S V12 V37 V103 Lasalle (L24, 23)

PHOENIX

Albuquerque	Lake V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 Harrington Ranch (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N Farley (L-4, 6)

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 Sharon (L-23, 24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
Willow Run	V40 V42 V103 Lasalle (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 OCR (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 (L-24) EMI
Boston	Freeport V119 V276 TON V35 ELM V72 ALB V2 GDM (L-24, 25)
Charleston W. Va.	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 Niles (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
Detroit Metro Area	V40 V42 V103 Lasalle (L24, 23)
Kennedy	V119 V276 RBV (L-24)
Indianapolis	V210; or Kilgore V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 Liberty (L24)
Newark	V119 V276 Reedsville V106 SEG V30 Rocky Hill (L-24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
St. Louis	Kilgore V210 Staunton (L23, 21)
Washington	V103 V92 FRR V4 HRN (L-24)

From Allegheny Co. only

Chicago	AGC V8 FDY V422 CGT V7 Niles (L-24, 23)
Kennedy	V12 V106 Reedsville V276 RBV (L24)
LaGuardia	V12 V106 SEG V6 V433 Liberty (L24)
Newark	V12 V106 V30 Rocky Hill (L24)

PROVIDENCE

Kennedy	V167 V16 RVH (L25)
LaGuardia	V167 V3 V445 Stamford (L52)
Newark	V167 HFD V292 Budd Lake (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 OOD (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 GDM (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 Park (L-12, 23)
Kennedy	V147 GEE V252 BGM V270 V34 CMK BDR RVH (L25)
LaGuardia	V147 ABE V6 V433 Liberty (L-25)
Newark	V147 TOH V226 Budd Lake (L25)
Philadelphia	V147 ABE V149 V3 Warrington (L25-24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn DCA (L25-24)
Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 Lasalle (L12, 23)

SAN ANTONIO

Dallas	Mission V17 ACT V15 Desoto (L-15, 17, 13)
El Paso	Guadalupe V222 Rio (L-15, 4)
Houston	Clear Spring V198 ELA V180 Arcola (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	LIN V113 RNO V6 MBW V100 Lakewood (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	Shrimp V27 SBP V137 Pozo V25 V12 FIM (L-2, 3)
Kennedy	LIN V113 RNO V6 MBW V100 OBK V84 LAN V2 SVM V116 ERI V170 V276 RBV (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	TOY V12 Wilbur V11 IND V14 FDY V8 MFD V246 Sharon (L-21, 23)
Columbus	TOY V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 Lakeside (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 Justin (L-21, 6, 13)
Indianapolis	TOY V12 Wilbur V11 (L-21, 23)
Kansas City	V4 Missouri City (L-21)
Memphis	V9 Kerrville (L-21, 14)
Midway/O'Hare	V9 JOT (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	TOY V52 EVV V4 HRN (L-21, 22)

SYRACUSE

Kennedy	V273 HNK V34 CMK BDR RVH (L25)
LaGuardia	V153 V29 V6 V433 Liberty (L25)
Newark	V273 Budd Lake (L25)
Philadelphia	V29 BGM V149 V3 Warrington (L25-24)

TAMPA METRO AREA

Atlanta	V97W Scallop V97 Brooks (L-19, 18, 20)
● Miami	Hansen V35 Chester (L19)

TORONTO

Kennedy	V34 CMK BDR RVH (L12, 25)
LaGuardia	V36 V147 V6 V433 Liberty (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 JOT (L-6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 Lakeside (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis	V140 FYV V72 V9 Lemay (L-6, 21)

● UTICA

Newark	RKA HNK V273 Budd Lake (L25)

WASHINGTON/BALTIMORE METRO AREA

Boston	Swan Point V268 V139 HTM (L24-25)
Chicago	Flint Stone V8 FDY V422 CGT (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 Sharon (L-24, 23)
Jacksonville	BRV V3 St. Marys (L-22, 20, 18)
Kennedy	Swan Point V123 RBV (L24)
LaGuardia	Swan Point V123 RBV (L24)
Newark	Swan Point V433 Rocky Hill (L24)
Philadelphia	Swan Point V123 OOD (L24)
Pittsburgh	Flint Stone V8 AGC (L-24)

From Washington only

Atlanta	CSN V140 MOL V143 LYH V222 AVL V35 Clemson V20N OCR (L-22, 20)
Charleston W. Va.	CSN V308 V174 V4 Ivydale (L22)
Charlotte	BRV V3 RDU V66 Midland (L22, 20)
Dallas	CSN V140 BNA V16 DAL (L22, 21, 14, 13)
Greensboro	CSN V140 MOL V143 Leaksville (L-22)
Harrisburg	Ashburn V8N V223 (L-24)
Jacksonville	BRV V3 St. Marys (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21, 14)
● Miami	BRV V3 V155 V157 V213 V1W ILM Control 1150 Porpoise PBI V3 Bradley (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	CSN V140 Lebanon (L22, 21)
New Orleans	CSN V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W Madison (L22, 20, 14, 18)
Norfolk Metro area	BRV V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 St. Marys (L-24, 22, 20, 19)

From Dulles Intl only

● Kennedy	Braddock V166 EWT V157 RBV or Braddock V166 V239 V238 ACY V1 BGT (L24)
Jacksonville	CSN V39 GVE V155 FAK V3 St. Marys (L24)
● LaGuardia	Braddock V166 EWT V157 RBV (L24)
● Miami	CSN V39 GVE V155 V157 V213 V1W ILM Control 1150 Porpoise PBI V3 Bradley (L22, 20, 19)
● Newark	Braddock V166 EWT V433 Rocky Hill (L24)
Philadelphia	Braddock HRN 354 rad V251 V238 ESR (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E Langaton (L6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Part 1)
(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

LOMA ONE DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 fee. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 302 and Myton VORTAC 120 radials to Myton. Cross Loma Intersection at or above 8300 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

Note.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence

via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Philipsburg VORTAC 082 radial Philipsburg VORTAC 082 radial to Philipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**—Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transiton**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 090 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 062 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, heading 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

• CALIFORNIA

SAN LUIS OBISPO "SBP" VORTAC SHUTDOWN

Nov 14, VOR will be shutdown til aprxly Nov 18. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V25W/ 27	GVO VORTAC to SBP VORTAC	GVO VORTAC to Tmpry SBP Int via GAV VORTAC 306 rad	6,000	17,000
V25W..	SBP VORTAC to PRB VORTAC	Tmpry SBP Int to PRB VORTAC via PRB VORTAC 167 rad	5,000N 6,000S	17,000 17,000
V27....	SBP VORTAC to Blancas Int	Tmpry SBP Int to Blancas Int via SBA VORTAC 295 rad	6,000	17,000
V137...	SBP VORTAC to FLW VORTAC	Tmpry SBP Int to FLW VORTAC via FLW VORTAC 259 rad (*8000 MCA Tmpry Pozo Int SE bound V25)	8,000E *6,000W	17,000 17,000

Existing Reporting Points	Temporary Reporting Points	MRA
SBP VORTAC................	Tmpry SBP Int—GVO VORTAC 306 rad PRB VORTAC 167 rad and FLW VORTAC 259 rad	6,000
Blancas Int................	BSR VORTAC 141 rad and PRB VORTAC 251 rad	4,000
Orcutt Int................	GVO VORTAC 306 rad and FLW VORTAC 225 rad	6,000
Pozo Int................	PRB VORTAC 133 rad and FLW VORTAC 259 rad	6,000

• GEORGIA

NORCROSS "OCR" VORTAC SHUTDOWN

Nov 15, VOR will be shutdown until aprxly Nov 17. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V20N/ 92E	ATL VORTAC to OCR VORTAC	ATL VORTAC to Tmpry OCR Int via ATL VORTAC 033 rad	3,000	17,500
V267/ 97E	OCR VORTAC to HRS VOR	Tmpry OCR Int to HRS VOR via ATL VORTAC 033 rad and HRS VOR 190 rad	6,000	17,500
V222...	OCR VORTAC to TOC VOR	Tmpry OCR Int to TOC VOR via ATL VORTAC 033 rad and TOC VOR 230 rad	4,000	17,500
V20N..	OCR VORTAC to Clemson Int	None		
V267...	OCR VORTAC to Wayside Int	None		
V184/ 311	OCR VORTAC to Homer Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
OCR VORTAC..............	Tmpry OCR Int—ATL VORTAC 033 rad and AHN VORTAC 270 rad	3,000
Buckhead Int..............	ATL VORTAC 006 rad REG VORTAC 321 rad	3,000
Kennesaw Int..............	ATL VORTAC 346 rad RMG VOR 108 rad	4,000
Crabapple Int..............	ATL VORTAC 006 rad AHN VORTAC 278 rad	4,000

All other ints based on OCR VORTAC unusable.

• ILLINOIS

PEOTONE "EON" VORTAC SHUTDOWN

Nov 15, VORTAC will be shutdown til aprxly Nov 18. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V53/128/144	City Int to EON VOR	None		
V38/144/177	MOI VOR to Demotte Int	MOI VOR to Demotte Int via MOI 277 rad	3,000	17,500
V38/144	Demotte Int to EON VOR	Demotte Int to Tmpry EON Int via MOI 277 rad	4,000	17,500
V53/128	EPT VOR to Kentland Int	EPT VOR to Kentland Int via EPT 330 rad	2,600	17,500
V53/128/491	Kentland Int to EON VOR	Kentland Int to Tmpry EON Int via EPT 330 rad	4,500	17,5C0
V171...	DNV VOR to EON VOR	DNV VOR to Tmpry EON Int via DNV 348 rad	4,000	17,500
V38.... **171**	Manteno Int to EON VOR	Manteno Int to Tmpry EON Int via JOT 123 rad	2,500	17,500
V332...	BFD VOR to OXI VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
EON VOR......................	JOT 123 rad and CGT 212 rad...	2,500
City Int......................	API 088 rad and ORD 151 rad...	2,500
Griffith Int......................	ORD 139 rad and CGT 087 rad...	2,600
Lowell Int......................	CGT 156 rad and MOI 277 rad...	3,500
Demotte Int......................	CGT 138 rad and MOI 277 rad...	3,000
Kentland Int......................	EPT 330 rad and RBS 061 rad...	2,600
Fowler Int......................	EPT 330 rad and LAF 285 rad...	2,600
Morris Int......................	CGT 250 rad and JOT 202 rad...	3,000

• MICHIGAN

LITCHFIELD "LFD" VORTAC SHUTDOWN

Nov 7, VOR will be shutdcwn til aprxly Nov 11. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V221...	JXN VOR to LFD VOR	JXN VOR to Tmpry LFD Int via JXN 231 rad	3,000	17,500
V90....	Bridgewater Int to LFD VOR	None		
V10....	Milan Int to LFD VOR	Milan Int to Tmpry LFD Int via CRL 274 rad	3,000	17,500
V30....	VWV VOR to LFD VOR	VWV VOR to Hudson Int via VWV 308 rad	2,500	17,500
		Hudson Int to Tmpry LFD Int via VWV 308 rad	4,000	17,500
V221...	Garrett Int to LFD VOR	Garrett Int to Tmpry LFD Int via FWA 016 rad	6,000	17,500
V10....	Centerville Int to LFD VOR	Centreville Int to Tmpry LFD Int via SBN 075 rad	6,000	17,500
V30....	Cooper Int to LFD VOR	Cooper Int to Leroy Int via PMM 112 rad	3,000	17,500
		Leroy Int to Tmpry LFD Int via PMM 112 rad	7,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
LFD VOR......................	JXN VOR 231 rad and BTL VOR 125 rad	3,000
Hudson Int......................	VWV VOR 308 rad and SVM VOR 223 rad	3,000
Sherwood Int......................	SBN VOR 075 rad and BTL VOR 176 rad	5,000
Bridgewater Int......................	None	
Brooklyn Int......................	CRL VOR 274 rad and JXN VOR 145 rad	3,000

NEW YORK

ITHACA "ITH" VOR SHUTDOWN

VOR will be shut down til aprxly Nov 11. For substitute route structure during shutdown, use flwg:

Airways	Existing Airways	Substitute Routes	MEA	MAA
V34....	Bellona Int to ITH VOR	None		
V34....	ITH VOR to HNK VOR	None		
V423..	BGM VOR to ITH VOR	None		
V423...	ITH VOR to Scipio Int	None		
V428...	ITH VOR to GGT VOR	ITH to GGT VOR via GGT VOR 249 rad	3,800	17,500
V428...	ELM VOR to ITH VOR	ELM VOR to ITH Int via ELM VOR 055 rad	3,800	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
ITH VOR......................	Tmpry ITH Int: BGM VOR 335 rad GGT VOR 249 rad	3,800
Cortland Int......................	Cortland Int: GGT VOR 249 rad and BGM VOR 007 rad	3,800

• NORTH DAKOTA

MINOT "MOT" VORTAC SHUTDOWN

Nov 14, VOR will be shut down thru Nov 25. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V15....	BIS VOR to MOT VOR	BIS VOR to MIB VOR via BIS VOR 336 rad and MIB VOR 153 rad	3,400	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V430...	ISN VOR to MOT VOR	ISN VOR to MIB VOR via ISN VOR 070 rad and MIB VOR 255 rad	4,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
MOT VOR	MIB VOR	1,800
Logan Int	MIB VOR 158 and SE course MT LFR	2,000

OHIO

BRIGGS "BSV" VORTAC SHUTDOWN

Due to unusable sectors, following substitute route is efctv immediately.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V40,75	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,75,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500
BSV VORTAC		Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad	3,100	

• CLEVELAND "CLE" VORTAC SHUTDOWN:

Nov 15. VORTAC will be shut down thru Nov 17. For substitute route structure during shutdown use the flwg:

Low Altitude

Airways	Existing Airways	Substitute Airways	MEA	MAA
V6.....	Angler Int to CLE VORTAC	Angler Int to STG VOR via STG 013 rad	4,000	17,500
V14N..	Fairport Int to CLE VORTAC	None		
V14/126	JFN VORTAC to CLE VORTAC	JFN VORTAC to CLE Int via JFN VORTAC 255 rad	4,500	17.500
V6.....	Chagrin Falls Int to CLE VORTAC	Chargrin Falls Int to STG VOR via STG 089 rad	3,500	17,500
V42....	ACO VORTAC to CLE VORTAC	ACO VORTAC to CLE Int via ACO VORTAC 293 rad	3,000	17,500
V40/75/443E	Sharon Int to CLE VORTAC	None		
V443...	TVT VOR to CLE VORTAC	TVT VOR to CLE Int via TVT VOR 001 rad	3,000	17,500
V5.....	MFD VORTAC to CLE VORTAC	MFD VORTAC to CLE Int via MFD VORTAC 036 rad	3,000	17,500
V14....	ATO VORTAC to CLE VORTAC	ATO VORTAC to CLE Int via ATO VORTAC 068 rad	3,000	17,500
V6/126.	Bay Int to CLE VORTAC	Bay Int to STG VOR via STG VOR 280 rad	3,500	17,500
V42....	Pelee Int to CLE VORTAC	Pelee Int to CLE Int via QG VOR 153 rad	4,000	17,500
V26....	Stripe Int to CLE VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
CLE VORTAC	Tmpry CLE Int—STG VOR 280 rad and MFD VORTAC 036 rad	3,000
Crib Int	CXR VORTAC 285 rad and STG VOR 346 rad	3,000
Gill Int	JFN VORTAC 284 rad and STG 005 rad	3,500
Fairport Int	None	
Mentor Int	ACO VORTAC 341 rad and CXR VORTAC 285 rad	3,000
Chagrin Falls Int	ACO VORTAC 316 rad and YNG 277 rad	3,500
Sharon Int	TVT VOR 020 rad and MFD VORTAC 069 rad	3,000
Bay Int	SKY VORTAC 345 rad and STG VOR 280 rad	3,500
Vermillion DME Int	None	

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J85/91.	QG VOR to CLE VORTAC	QG VOR to CLE Int via QG VOR 153 rad	FL 180	FL 450
JHL/545	XU VOR to CLE VORTAC	XU VOR to CLE Int via XU 209 rad	FL 180	FL 450
J29/82.	ERI VORTAC to CLE VORTAC	ERI VORTAC to CLE Int via ERI VORTAC 251 rad	FL 180	FL 450
J60....	PSB VORTAC to CLE VORTAC	PSB VORTAC to CLE Int via PSB VORTAC 286 rad	FL 180	FL 450
J34....	AGC VORTAC to CLE VORTAC	AGC VORTAC to CLE Int via AGC VORTAC 310 rad	FL 180	FL 450
J85/91	CRW VORTAC to CLE VORTAC	CRW VORTAC to CLE Int via CRW VORTAC 360 rad	FL 200	FL 450
J83....	APE VOR to CLE VOR	APE VOR to CLE Int via APE VOR 017 rad	FL 180	FL 450
J29....	DAY VORTAC to CLE VORTAC	DAY VORTAC to CLE Int via DAY VORTAC 052 rad	FL 180	FL 450
J60/82	JOT VORTAC to CLE VORTAC	JOT VORTAC to VWV VORTAC via JOT VORTAC 088 rad to VWV VORTAC 273 rad thence via VWV VORTAC 096 rad to CLE Int	FL 180	FL 410
J34....	PMM VORTAC to CLE VORTAC	PMM VORTAC to VWV VORTAC via PMM VORTAC 121 rad and VWV VORTAC 301 rad thence via VWV VORTAC 096 rad to CLE Int	FL 180	FL 410

Existing Reporting Points	Temporary Reporting Points	MRA
CLE VORTAC	Tmpry CLE Int—APE VORTAC 017 rad and AGC VORTAC 310 rad	FL 180
Vienna Int	ERI VORTAC 201 rad and PSB VORTAC 286 rad	FL 180

VIRGINIA

HERNDON "HRN" VOR SHUTDOWN

VORTAC will be shut down thru Nov 9. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V30	EMI VORTAC to HRN VORTAC	EMI VORTAC to HRN Int via EMI 226 rad	3,000	17,500
	HRN VORTAC to CSN VORTAC	HRN Int to CSN VORTAC via CSN 046 rad	3,000	17,500
V223	Keymar Int to HRN VORTAC	Keymar Int to HRN Int via HAR VORTAC 204 rad	9,500	17,500
V4	FRR VORTAC to HRN VORTAC	FRR VORTAC to HRN Int via FRR VORTAC 103 rad	4,000	17,500
V30E/223	HRN VORTAC to Brandy Int	None		
V140	HRN VORTAC to Towson Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
HRN VORTAC	Tmpry HRN Int—EMI VORTAC 226 rad and FRR VORTAC 103 rad and MRB VORTAC 149 rad and CSN VORTAC 046 rad	2,500
Sugarloaf Int	HAR VORTAC 204 rad and MRB VORTAC 110 rad	5,000
Ashburn Int	DCA VORTAC 331 rad and BAL VORTAC 276 rad	2,800
Brandy Int	BRV VORTAC 306 rad and GVE VORTAC 040 rad	2,800

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J80/34	FRR VORTAC to HRN VORTAC	FRR VORTAC to Tmpry HRN Int via FRR VORTAC 103 rad	FL 180	FL 450

Existing Reporting Points	Substitute Reporting Points	MRA
HRN VORTAC	Tmpry HRN Int—FRR VORTAC 103 rad GVE VORTAC 034 rad	FL 180

• WISCONSIN

MILWAUKEE "MKE" VORTAC SHUTDOWN

Nov 14, DME will be shut down thru Nov 18, VOR will be shut down Nov16. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V2	LNR VOR to Marshall Int	LNR VOR to TAX VOR via LNR VOR 102 rad and TAX VOR 281 rad	3,000	7,000
		TAX VOR to Marshall Int via TAX VOR 090 rad	3,600	7,000

Existing Reporting Point		Temporary Reporting Point		MRA
	Marshall Int to MKE VOR	Marshall Int to MKE Int Int via TAX VOR 090 rad	3,600	17,500
	Minnow Int to Seaweed Int	Minnow Int to Seaweed Int via MKG VOR 270 rad	5,000	17,500
	Seaweed Int to Cardinal Int	Seaweed Int to Cardinal Int via MKG VOR 270 rad	6,000	17,500
	Cardinal Int to MKE VOR	Cardinal Int to MKE Int via MKG VOR 270 rad	7,000	11,000
V9/191	Eden Int to MKE VOR	Eden Int to MKE Int via OSH VOR 165 rad	3,000	17,500
V7	Chilton Int to Calvary Int	Chilton Int to Calvary Int via GRB VOR 182 rad	3,000	17,500
	Calvary Int to MKE VOR	Calvary Int to MKE Int via GRB VOR 182 rad	7,000	17,500
V63	JVL VOR to MKE VOR	JVL VOR to MKE Int via JVL VOR 044 rad	3,000	17,500
V479	OBK VOR to MKE VOR	OBK VOR to MKE Int via OBK VOR 342 rad	3,900	17,500
V308/191	MKE VOR to Horlick Int	MWG VOR to Horlick Int via MWC VOR 127 rad	3,000	17,500
V308	Horlick Int to Rainbow Int	Horlick Int to Rainbow via MWC VOR 127 rad and PMM VOR 282 rad	3,000	17,500
V28/30/170	MKE VOR to Sunfish Int	MWC VOR to Sunfish Int via MWC VOR 104 rad	2,700	17,500
V170	Randolph Int to MKE VOR	None		
V9/429	Elkhorn Int to MKE VOR	None		
V9	Marengo Int to Elkhorn Int	None		
V7/7E/217	Taylor Int to MKE VOR	None		
V7E	Taylor Int to Int with CGT 011 rad	None		

Existing Reporting Point	Temporary Reporting Point	MRA
MKE VOR	Tmpry MKE Int—OSH VOR 165 rad and JVL VOR 044 rad	3,000
Big Bend Int	OBK VOR 342 rad and JVL VOR 062 rad	3,900
Braves Int	MWC VOR 127 rad and OBK 038 rad	3,000

Existing Reporting Points	Temporary Reporting Points	MRA
Calvary Int	GRB VOR 182 rad and OSH VOR 120 rad	3,000
Cardinal Int	MKG VOR 270 rad and N crs MKE ILS	6,000
Horlick Int	MWC VOR 127 rad and ORD VOR 017 rad	3,500
Marshall Int	TAX VOR 090 rad and JVL VOR 001 rad	3,600

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
Morey Int	TAX VOR 281 rad and JVL VOR 330 rad	3,000 MAA 7,000
Pike Int	MWC VOR 127 rad and JVL VOR 073 rad	4,000
Randolph Int	DLL VOR 094 rad and OSH VOR 206 rad	3,000
Seaweed Int	MKG VOR 270 rad and OBK VOR 017 rad	5,000
Watertown Int	TAX VOR 090 rad and JVL 028 rad	3,600
Wind Lake Int	OBK VOR 342 rad and JVL VOR 073 rad	3,000
Wall Eye Int	None	
Lake Park Int	None	
Harbor Int	None	
Oakwood Int	None	
Racine Int	None	
Taylor Int	None	
Elkhorn Int	None	
Harvard Int	None	
Belgium Int	None	

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J89/101	OBK VORTAC to MKE VORTAC	OBK VORTAC to MKE Int OBK VORTAC 343 rad	FL 180	FL 450
J34/70	PMM VORTAC to MKE VORTAC	PMM VORTAC to MKE Int via PMM VORTAC 293 rad		
J34/36	ODI VORRAC to MKE VORTAC	ODI VORTAC to MKE Int via ODI VORTAC 104 rad	FL 180	FL 450
J105	BDF VORTAC to MKE VORTAC	BDF VORTAC to MKE Int via BDF VORTAC 022 rad	FL 180	FL 450
J101	BRB VORTAC to MKE VORTAC	GRB VORTAC to MKE Int via GRB VORTAC 182 rad	FL 180	FL 450
J16/38	MKE VORTAC to ECK VORTAC	None		
J70	MSP VORTAC to MKE VORTAC	None		
J89	DLH VORTAC to MKE VORRAC	None		
J16	MCW VORTAC to MKE VORTAC	None		

Existing Reporting Point	Temporary Reporting Point	MRA
MKE VORTAC	Tmpry MKE Int—OBK VORTAC 343 rad and PMM VORTAC 293 rad	FL 180

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

ABERDEEN

42nd Edition, August 18, 1966

No hazardous changes.

•ALBANY

57th Edition, July 21, 1966

Add UNICOM Barnes Muni arpt 42°09'39"N, 72°42'48"W. Add ctl twr freq 122.7R Oneida County. Add UNICOM Sicho arpt 42°41'25"N, 73°34'50"W. Delete Brantingham Inn SPB 43°41'23"N, 75°16'43"W. Add obstr 1755' MSL 42°52'29"N, 75°09'47"W.

•ALBUQUERQUE

57th Edition, August 18, 1966

Add obstn 4269' MSL 34°51'00"N, 102°33'42"W. Delete UNICOM Grants Milan arpt 35°10'N, 107°54'W.

•AROOSTOCK

43rd Edition, April 28, 1966

Add Loring AF VOR freq 115.0 ident LIZ class L mag var 22°W 46°50'10"N, 67°51'24"W. Relocate Andover SPB 46°48'N, 67°47'W to 46°46'N, 67°42'W. Add obstr 1765' MSL 46°33'05"N, 67°48'37"W. Add Loring (AF) VOR freq 115.0 ident LIZ class TVOR mag var 22°W 46°50'10"N, 67°51'24"W.

•AUSTIN

62nd Edition, Nov. 10, 1966

No hazardous changes.

•BEAUMONT

56th Edition, September 15, 1966

Add obstn 417' MSL 30°01'39"N, 92°17'17"W. Add obstn 495' MSL 30°23'03"N, 91°03'27"W. Add obstn 430' MSL 30°14'20"N, 92°14'03"W. Add obstn 411' MSL 29°58'44"N, 92°09'15"W. Add Polk AAF VOR freq 108.4 ident POE class LVOR mag var 7°E 31°06'41"N, 93°13'03"W. Add obstn elev 544 MSL 31°55'55"N, 92°38'30"W. Delete S P Lumber arpt 31°12'N, 94°47'W.

BELLINGHAM

53rd Edition, May 26, 1966

Add UNICOM Campbell River arpt 49°57'N, 125°16'W. Add V304 awy Vancouver to Enderby (036°M from Vancouver). Delete Belcher arpt 48°15'N, 122°17'W.

•BIRMINGHAM

62nd Edition, Oct. 13, 1966

Add obstr 700 MSL 32°56'38"N, 87°50'06"W. Add obstr 1019 MSL 33°30'34"N, 87°25'41"W. Delete DF Columbus AFB ctl twr 33°39'N, 88°27'W. Correct type bottom of REX VOR facility box to read DME.

•BOISE

42nd Edition, May 26, 1966

Delete FM Eagle code — — — — — 43°43'30"N, 116°26'00"W. Add R–3202 bounded on the S by 42°40'00", W by 115°38'14"N by 42°48'45" and E by 115°32'41". Delete Allen arpt 43°44'N, 118°05'W. Add UNICOM Jerome County arpt 42°44'N, 114°27'W.

•BOSTON

58th Edition, September 15, 1966

Change obstr elev 375' MSL to 549' MSL 41°58'05"N, 70°42'03"W. Delete OTIS (AF) VOR 41°39'44"N, 70°30'53"W.

•BURLINGTON

47th Edition, Nov. 10, 1966

No hazardous changes.

BUTTE

46th Edition, July 21, 1966

Add UNICOM Boulder arpt 46°13'N, 112°06'W.

CASPER

52nd Edition, Oct. 13, 1966

No hazardous changes.

•CHARLOTTE SECTIONAL CHART

59th Edition, Oct. 13, 1966

Add obstn 440' MSL 35°16'15''N, 78°21'16''W. Add obstn 1392' MSL 34°07'07''N, 80°56'12''W. Add DF Florence arpt 34°11'N, 79°43'W. Delete Shaw (AF) VOR 33°58'N, 80°27'W. (to be decmsnd eff. 10–22–66). Change Anderson VORTAC freq to 108.6.

•CHATTANOOGA

58th Edition, August 18, 1966

Add UNICOM Albertville arpt 34°14'N, 86°15'W. Add McKellar VOR freq 112.0 ident MKL class T/BVOR mag var 4°E 35°36'13''N, 88°54'38''W. Delete Milan arpt 35°56'N, 88°44'W. Change obstn elev 2287' MSL to 2549' MSL 35°08'05''N, 85°19'26''W. Delete Boen arpt 35°57'N, 88°45'W. Delete Martin non-Federal RBn 35°30'N, 88°58'W. Delete Hardee non-federal RBN 35°35'N, 88°56'W. Add obstr elev 750' MSL 35°08'39''N, 89°48'20''W. Add obstr elev 2214' MSL 35°13'10''N, 85°53'11''W. Add aband arpt symbol & type 35°54'N, 89°24'W.

CHEYENNE

54th Edition, June 23, 1966

Add obstn 4536' MSL 41°11'09''N, 103°03'05''W. Add obstn 4567' MSL 41°21'57''N, 102°58'24''W. Delete aband arpt symbol and type 40°36'N, 105°09'W. Add UNICOM Fort Collins-Loveland arpt 40°27'N, 105°01'W. Add obstn 5586' MSL (9 towers) 40°40'41''N, 105°02'50''W. Delete Buske arpt 41°35'N, 102°35'W. Change Meeker VORTAC freq 111.8 Ch 55 to 115.2 Ch 99 40°04'03''N, 107°55'27''W.

•CHICAGO

62nd Edition, May 26, 1966

Delete Carm arpt 43°45'N, 88°01'W. Add Sturgis RBn freq 380 ident IRS class MHW 41°49'N, 85°26'W. Delete ctl twr freq 342 at DuPage Co. Delete Berg arpt 40°33'N, 84°14'W. Add unicom Allen Co arpt 40°42'N, 84°02'W. Delete Goshen RBn 41°31'N, 85°52'W. Add obstn 1050' MSL 41°08'17''N, 87°53'46''W. Add obstn 1019' MSL 41°19'56''N, 88°49'30''W. Delete Prosperi arpt 41°33'N, 87°47'W. Add UNICOM Kirsch arpt 41°49'N, 85°26'W. Add UNICOM Marion arpt 40°29'N, 85°41'W. Delete UNICOM Wapakoneta 40°37'N, 84°11'W. Delete Midway arpt. 41°37'N, 85°55'W. Delete UNICOM Culver arpt 41°13'N, 86°23'W. Add UNICOM Highland arpt 40°04'N, 87°29'W.

•CINCINNATI

62nd Edition, August 18, 1966

Add Connersville non-federal RBn freq 275 ident CEV class MHW 39°41'51''N, 85°08'04''W. Delete Morrow arpt 39°20'N, 84°08'W. Add Huntingburg non-federal RBn freq 239 ident HNB class MHW 38°14'51''N, 86°56'47''W. Add obstr elev 1849' MSL at 39°53'59''N, 86°12'02''W.

•CLEVELAND

63rd Edition, Nov. 10, 1966

No hazardous changes.

CORPUS CHRISTI

57th Edition, July 21, 1966

Add obstn 560' MSL 26°15'26''N, 98°13'53''W.

•DALLAS

63rd Edition, July 21, 1966

Delete Starnes arpt 33°53'N, 101°59'W. Increase obstn elev 3315' to 3469' MSL 33°31'15''N, 101°46'27''W. Change ctl twr freq 118.9 to 120.5 Greater Southwest Intnl 32°50'N, 97°03'W. Add obstn 906' MSL 33°15'45''N, 97°06'06''W. Delete Edwards Ranch No 2 arpt 32°05'N, 101°34'W.

•DEL RIO

42nd Edition, Nov. 10, 1966

No hazardous changes.

DENVER

56th Edition, June 23, 1966

Add R–2602 beginning at 38°39'N, 104°52'W to 38°36'20''N, 104°52'W to 38°32'06''N, 104°49'18''W to 38°32'06''N, 104°45'00''W to 38°26'10''N, 104°45'00''W to 38°26'10''N, 104°57'13''W to 38°32'38''N, 104°57'13''W thence along Highway #115 to point of beginning. Altitudes surface to 35,000'. Time cont.

•DES MOINES

56th Edition, Nov. 10, 1966

No hazardous changes.

•DETROIT

61st Edition, July 21, 1966

Add UNICOM Moorhead arpt 42°11'N, 79°53'W. Delete Central RBn 43°16'57''N, 81°26'28''W. Centralia ctl twr decmsnd 43°18'N, 81°31'W. Add obstn elev 1026' MSL 42°32'42''N, 82°54'04''W. Change obstn elev 1946' MSL to 2170' MSL 42°03'53''N, 80°00'18''W.

•DOUGLAS

44th Edition, Oct. 13, 1966

Add obstn elev 3921' MSL 31°54'05''N, 111°04'43''W.

•DUBUQUE

52nd Edition, September 15, 1966

Add obstn 1760' MSL 42°04'08''N, 95°19'51''W. Add obstn 1705' MSL 42°21'45''N, 95°29'15''W. Add obstn 1799' MSL 42°02'05''N, 95°37'05''W. Change obstn elev 1665' to 1855' MSL 43°23'20''N, 94°51'00''W.

DULUTH

40th Edition, July 21, 1966

In northern border delete Graham LFR legs box & type. Delete Robbel arpt 45°56'N, 90°28'W. Change ident DHL to DL Duluth RBn. Relocate Grand Rapids (Minn) VOR from 47°12'54''N, 93°30'40''W to 47°09'47''N, 93°29'21''W.

ELKO

46th Edition, May 26, 1966

Add V507 awy from Reno to Sod House (196°M from Sod House).

•EL PASO

56th Edition, August 18, 1966

Delete UNICOM Hurd Memorial arpt 31°34'N, 102° 54'W.

•FARGO

45th Edition, August 18, 1966

Delete Chandler arpt 47°31'N, 96°49'W. Add obstr 2675' MSL 46°18'51''N, 101°17'52''W. Add obstr 2340' MSL 47°27'46''N, 100°15'00''W. Add obstr 1700' MSL 47°19'29''N, 98°12'29''W.

GLACIER PARK

39th Edition, Oct. 13, 1966

No hazardous changes.

GRAND CANYON

42nd Edition, May 26, 1966

Add Grand Canyon VOR freq 109.0 ident GCN class T-BVOR mag var 15°E 35°57'38''N, 112°08'50''W. Add UNICOM Grand Canyon Natl Park arpt 35°57'N, 112°09'W.

•GRAND JUNCTION

45th Edition, Nov. 10, 1966

No hazardous changes.

GREEN BAY

53rd Edition, May 26, 1966

Delete Valley arpt 44°08'N, 88°30'W. Add Iron Mountain VOR freq 111.2 ident IMT class L/BVOR mag var 1°E 45°48'59''N, 88°06'43''W. Add ctl zone 5 mi radius Ford arpt 45°49'N, 88°07'W with S, SE & W extsns ctl efctv by NOTAM's. Add V9 Green Bay to Iron Mountain to Houghton (348°M from Iron Mountain). Add V430 awy Escanaba to Iron Mountain to Ironwood (297°M from Iron Mountain). Add V9E awy Iron Mountain to Marquette (027°M from Iron Mountain). Add 700' Transition area 6 mi radius Otsego Co arpt 45°01'N, 84°42'W a 1200' transition area 8 mi N & 5 mi S of 087°T bearing from Otsego Co arpt to a point 12 mi E & the airspace 5 mi each side of 304°T bearing from the arpt to V193. Add UNICOM Boyne Mtn arpt 45°10'N, 84°56'W.

HAWAIIAN ISLANDS

18th Edition, December 9, 1965

Change Maui ctl twr freqs from 118.1 257.8 to 118.7 279.6. Delete ctl twr freq 278 at Hilo. Add obstn 6827' MSL 20°47'N, 156°14'W. Delete ctl twr freq 278 Gen Lyman. Delete ctl twr freq 265 MCAS Kaneohe Bay.

HUNTINGTON

56th Edition, August 18, 1966

Delete UNICOM Potomac Airpark 39°41'N, 78°10'W. Delete Boggs arpt 39°52'N, 83°14'W.

•JACKSONVILLE

55th Edition, Nov. 10, 1966

No hazardous changes.

KANSAS CITY

58th Edition, August 18, 1966

Delete Rush arpt 39°46'N, 95°15'W. Add UNICOM Civic Memorial arpt 38°53'N, 90°03'W. Add obstn 1090' MSL 39°03'14''N, 95°34'08''W. Delete Farley RBn 39°18'48''N, 94°49'36''W. Add UNICOM Booneville arpt 38°59'N, 92°45'W.

KANSAS CITY LOCAL

36th Edition, August 18, 1966

Correct lctn Berry Arpt to 38°52'N, 94°10'W.

KLAMATH FALLS

55th Edition, September 15, 1966

No hazardous changes.

KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06'N, 119°46'W. Add Castlegar FM code ——— 49°19'N, 117°38'W. Increase terrain elev at lat 48°25'N & long 114°07'W to 4000'–6000' MSL.

LA GRANDE

45th Edition, July 21, 1966

No hazardous changes.

•LAKE HURON

41st Edition, May 26, 1966

Add obstn 1110' MSL 44°54'46''N, 79°23'16''W. Delete Peterborough SPB 44°23'N, 78°23'W.

•LAKE SUPERIOR

44th Edition, August 18, 1966

Delete RBn Grand Marais 46°38'16''N, 85°58'56''W. Add obstn 1549' MSL 46°29'52''N, 87°24'59''W.

LAKE OF THE WOODS

39th Edition, August 18, 1966

Delete Cache Bay SPB 48°12'N, 91°01'W.

•LEWISTON

46th Edition, Nov. 10, 1966

No hazardous changes.

•LINCOLN

55th Edition, Oct. 13, 1966

Correct BS station 40°51'27''N, 97°35'36''W from KHAS 1230 to KAWL 1370.

•LITTLE ROCK

50th Edition, July 21, 1966

Delete Fort Smith RBn 35°30'00'N, 94°24'30''W. Change ident LIT to LI & relocate from 34°41'03''N, 92°11'13''W to 34°40'08''N, 92°18'19''W. Little Rock RBn.

•LOS ANGELES

62nd Edition, August 18, 1966

Correct elev NAS Los Alamitos arpt from 25 to 35. Change obstn elev 454' MSL to 585' MSL 33°51'35''N, 118°20'56''W. Add obstn 3551' MSL 34°55'06''N, 117°22'33''W. Change ctl twr freq 120.3 to 120.2 Van Nuys. Change ctl twr freq 118.1 to 120.9 Torrance. Change ctl twr freq 120.4 to 119.2 Palmdale AF Plant 42. Add UNICOM Yucca Valley arpt 34°08'N, 116°25'W.

•MIAMI

54th Edition, September 15, 1966

Add obstn 277' MSL 27°26'43''N, 80°24'47'' W. Add UNICOM Barton arpt 27°57'N, 81°47'W. Add Venice non-federal RBn freq 209 ident XVN class MHW 27°04'46''N, 82°26'41''W. Delete UNICOM Okeechobee Co arpt 27°16'N, 80°51'W.

•MILES CITY

46th Edition, Oct. 13, 1966

Add obstn 2714' MSL 47°54'42''N, 103°27'02''W.

•MILWAUKEE

60th Edition, May 26, 1966

Delete ctl twr freq 342 DuPage Co. Delete ctl twr freq 396 Kellog. Delete Carm arpt 43°46'N, 88°01'W. Twr comsnd Rock County arpt freqs 121.2, 122.7R. Add obstn 851' MSL 43°41'49''N, 83°58'48''W. Add UNICOM Cottonwood arpt 42°18'N, 89°08'W. Delete Air City arpt 42°41'N, 87°53'W. Add Sheboygan RBn freq 254 ident SBM class MHW 43°45'44''N, 87°51'03''W. Add obstn 891' MSL 42°06'15''N, 86°28'19''W. Add obstn 1340' MSL 43°01'31''N, 89°23'46''W. Add obstn 1126' MSL 42°27'34'N, 89°01'44'W. Relocate RBn 42°54'32.6''N, 87°53'38.5''W to 42°54'32.6''N, 88°02'27.4''W change name Milwaukee to Mitchell ident MKE to GM class SABH to H/SAB/LOM. Add Alma RBn freq 329 ident AMN class MHW 43°23'08''N, 84°40'27''W. Add UNICOM Greater Rockford arpt 42°12'N, 89°06'W. Add obstn 1232' MSL 43°48'56''N, 88°50'47''W. Add UNICOM Rock County arpt 42°37'N, 89°02'W.

MINOT

44th Edition, September 15, 1966

No hazardous changes.

•MOBILE

59th Edition, July 21, 1966

Delete DF Cairns AAF ctl twr 31°16'N, 85°43'W. Add obstn 641' MSL 31°56'33''N, 87°04'11''W. Delete Brantley arpt 31°36'02''N, 86°13'50''W. Add obstn 525' MSL 31°48'45''N, 89°03'21''W. Add obstn 405' MSL 31°16'50''N, 89°51'12''W. Add obstn elev 693' MSL 31°55'30''N, 89°02'12''W. Add obstn elev 629' MSL 31°48'51''N, 89°03'04''W. Delete Lee arpt. 31°27'45''N, 87°21'00''W. Delete Crestview RBn 30°48'N, 86°31'W. Delete DF Turner AFB ctl twr 31°36'N, 84°05'W.

MT. SHASTA

56th Edition, Nov. 10, 1966

No hazardous changes.

MT. WHITNEY

57th Edition, June 23, 1966

Add obstn 2355' MSL 36°12'52''N, 115°09'18''W. Add UNICOM Gallaher arpt 36°16'N, 119°18'W.

•NASHVILLE

57th Edition, July 21, 1966

Change ctl twr freq 229.6 to 241.0 Godman AAF. Add UNICOM Gallatin Mun 36°23'N, 86°25'W. Delete Gee arpt 36°31'N, 89°43'W. Add obstn 1280' MSL 37°01'11'N, 85°53'38''W. Add obstn 1120' MSL 36°32'07''N, 85°27'12''W. Delete Kollehner arpt 37°25'N, 89°17'W.

•NEW ORLEANS

60th Edition, September 15, 1966

Add obstn 417' MSL 30°01'39''N, 92°17'17''W. Add obstn 411' MSL 29°58'44''N, 92°09'15''W. Add obstn elev 430' MSL 30°14'20''N, 92°14'03''W. Add obstn, elev 495' MSL 30°23'03''N, 91°03'27''W.

•NEW YORK

65th Edition, Oct. 13, 1966

Add obstn elev 1549' MSL at 41°25'23''N, 72°57'06''W.

•NORFOLK

59th Edition, September 15, 1966

Add UNICOM Emporia arpt 36°41'N, 77°29'W. Add SW extn to New Bern ctl zone 4 mi wide to a point 8 mi SW of EWN-VOR.

• OKLAHOMA CITY

60th Edition, Nov. 10, 1966

No hazardous changes.

•ORLANDO

56th Edition, Nov. 10, 1966

No hazardous changes.

•PHOENIX

55th Edition, July 21, 1966

Delete Rainy Mesa arpt 33°33'N, 108°38'W. Add obstn 3614' MSL 33°04'07''N, 111°03'16''W. Change ctl twr freq 257.8 to 256.9 Phoenix Sky Harbor. Add obstn 5071' MSL 32°45'48''N, 110°56'13''W. Change Phoenix VOR freq & ident 115.6 PHX to 113.3 EPX TACAN portion tmprly shutdown.

POCATELLO

52nd Edition, Oct. 13, 1966

No hazardous changes.

•PORTLAND

55th Edition, July 21, 1966

Add UNICOM Hood River County arpt 45°40'N, 121°32'W. Add ctl zone 5 mi radius Hillsboro arpt 45°32'15''N, 122°56'30''W with extsn 8 mi S of arpt. See NOTAMs/AIM for CZ efctv hrs. Add standard South alternate V448S awy from Portland to Yakima. Delete Carson arpt 45°43'N, 121°49'W. Add UNICOM Oregon City arpt 45°16'N, 122°35'W. Twr comsnd Portland Hillsboro arpt freqs 119.3, 240.8 & 122.6 R.

•PRESCOTT

46th Edition, September 15, 1966

Add UNICOM Oak Creek Canyon arpt 34°51'N, 111°47'W. Delete UNICOM Cottonwood Clemenceau arpt 34°44'N, 112°02'W. Delete UNICOM Grants Milan arpt 35°11'N, 107°51'W.

RAPID CITY

44th Edition, June 23, 1966

Delete awy bcn site #2B 44°33'06"N, 106°42'28"W.

•RENO

46th Edition, June 23,1966

Ctl twr decmsnd Stead AFB fld clsd. Add area R-4813 from 39°51'N, 118°38'W to 40°01'N, 118°15'W to 39°52'36"N, 118°01'W thence via 15 mi arc centered at 39°52'36"N, 118°20'27"W to 39°45'50"N, 118°38'W. (Contact Lovelock FSS) Add area R–4812 5 mi either side of aline 39°10'N, 118°37'30"W and 39°13"N, 118°12'42"W bounded on the E by R–4804 on the W by R–4810. Change freq 254 to 351 Reno RBn.

•ROSWELL

55th Edition, June 23, 1966

Add UNICOM Midland Airpark 32°02'N, 102°06'W. Add obstn 864' MSL 33°41'33'N, 95°23'45"W. Add obstn 4205' MSL 32°54'51"N, 103°19'42"W.

•SACRAMENTO

56th Edition, June 23, 1966

Ctl twr decomsnd Stead AFB fld clsd. Add UNICOM Garberville arpt 40°05'N, 123°49'W. Add Travis RBn freq 400 ident SU class MHW 38°20'10"N, 121°49'18"W. Delete abandoned arpt 38°25'N, 122°45'W. Change freq 254 to 351 Reno RBn. Change ctl twr freq 257.8 to 239.0 Stockton. Delete Inglenook Ranch arpt 38°28'N, 122°27'W.

SALINA

55th Edition, September 15, 1966

Delete Wilkens arpt 38°34'N, 98°22'W. Add UNICOM Salina arpt 38°47'N, 97°39'W.

SALT LAKE CITY

53rd Edition, May 26, 1966

Change freq 111.8 to 115.2 Meeker VOR.

•SAN ANTONIO

58th Edition, June 23, 1966

Add obstn 636' MSL 29°59'33"N, 95°28'23"W. Add UNICOM Hondo muni arpt 29°21'N, 99°10'W. Delete Arrowhead Ranch arpt 28°15'36"N, 98°33'54"W. Delete Dial Ranch arpt 28°39'40"N, 97°35'57"W. Delete Mangum arpt 28°58'30"N, 95°54'55"W. Add obstn 390' MSL 29°16'46"N, 95°44'26"W. Add obstn 455' MSL 28°56'44"N, 95°20'12"W. Delete Riverview arpt 29°16'N, 98°36'00"W. Delete San Antonio RBn 29°34'N, 98°28'W. Add UNICOM Spaceland Airpark 29°30'N, 95°09'W. Delete Bergmann 29°50'38"N, 98°46'57"W. Delete Flying W Ranch arpt 28°29'29"N, 99°25'00"W. Delete Roundtree Ranch arpt 27°17'55"N, 97°49'46"W.

•SAN DIEGO

60th Edition, August 18, 1966

Change obstn elev 454' MSL to 585' MSL 33°51'35"N, 118°20'56"W. Add obstn elev 139' MSL 33°14'37"N, 115°30'36"W. Add obstn elev 295' MSL 33°28'41"N, 115°51'43"W. Change ctl twr freq 142.74 to 126.2 NAAS Ream. Change ctl twr freq 118.1 to 120.9 Torrance.

•SAN FRANCISCO

59th Edition, June 23, 1966

Delete Blackwells arpt 35°37'N, 119°53'W. Add obstn 530' MSL 36°48'18"N, 121°46'50"W. Change Stockton ctl twr freq 257.8 to 239.0.

• SAVANNAH

60th Edition, September 15, 1966

Delete Shaw (AF) VOR 33°58'N, 80°27'W. (to be decmsnd. eff. 10–22–66).

SEATTLE

59th Edition, June 23, 1966

Add ctl zone 5 mi radius Kitsap Co arpt 47°29'35"N, 122°45'35"W with extsn 8 mi SW of RBn. See NOTAMs/AIM for CZ efctv hrs. Add standard South alternate V448S awy from Portland to Yakima. Change ctl twr freq 119.1 to 119.7 at Yakima.

• SHREVEPORT

51st Edition, June 23, 1966

Add obstn 856' MSL 33°09'35"N, 94°56'12"W. Change ctl twr freq 119.7 to 118.9 at Gregg County. Delete Arneson arpt 32°26'N, 91°19'W. Add ctl zone 5 mi radius Greenville Muni arpt 33°29'05"N, 90°59'06"W with extsn 8.5 mi N of VOR efctv 0700 to 2000 hrs daily. Delete Mulinax arpt 35°56'N, 95°16'W. Add obstn 462' MSL 33°39'34"N, 91°21'48"W. Add obstn 864' MSL 33°41'33"N, 95°23'45"W. Delete Paynes arpt 33°54'N, 90°05'W. Delete McPherson arpt 32°27'N, 91°25'W. Delete ctl twr freq 278 Hawkins 32°20'N, 90°13'W.

•SIOUX CITY

44th Edition, Nov. 10, 1966

No hazardous changes.

SPOKANE

53rd Edition, June 23, 1966

Ctl twr decomsnd Larson AFB 47°12'34"N, 119°18'51"W. Delete Larson RBn 47°06'57"N, 119°16'24"W. Delete Larson FM code — — 47°06'57"N, 119°16'24"W. Delete Larson (AF) VOR 47°05'41"N, 119°15'41"W. Add ctl zone 5 mi radius Pullman-Moscow Regional arpt 46°40'25"N, 117°13'30"W with extsn 8 mi SW of VOR. see NOTAMs/AIM for CZ efctv hrs. Add Moses Lake RBn freq 408 ident MW class MHW 47°06'57"N, 119°-

16'24"W. Add Moses Lake VOR freq 117.0 ident MHW class LVOR mag var 21°E 47°05'42"N, 119°15'41"W. Twr comsnd Grant County arpt freq 118.1 257.8 47°06'57"N, 119°18'51"W. Add Pullman VOR freq 109.0 ident PUW class L/BVOR mag var 20°E 46°40'25"N, 117°13'30"W.

•TRINDAD

44th Edition, September 15, 1966

Add obstn 3995' MSL 36°19'56"N, 102°04'51"W.

TULSA

58th Edition, Oct. 13, 1966

On some printings of Tulsa Sectional, 58th Edition dated Oct. 13, 1966, a 1200' floor was inadvertently shown within the Walnut Ridge Control Zone. Please disregard.

•TWIN CITIES

53rd Edition, Nov. 10, 1966

No hazardous changes.

•WASHINGTON

64th Edition, Oct. 13, 1966

Correct arpt info to read Airlie (Pvt) 38°45'N, 77°47'W. Non-Federal Tower comsnd Hagerstown arpt freq's 118.5 257.8.

•WICHITA

56th Edition, June 23, 1966

Delete Vance RBn 36°16'N, 97°55'W. Add UNICOM Sunray arpt 36°02'N, 101°50'W. Add UNICOM Ulysess arpt 37°36'N, 101°22'W. Add UNICOM Piper arpt 37°45'N, 97°13'W. Add Perryton non-federal RBn freq 206 ident PYX class MHW 36°24'46"N, 100°44'17"W. Delete Fincham arpt 37°49'N, 98°°46'W. Relocate Wichita RBn from 37°38'53"N, 97°16'19"W to 37°34'42"N, 97°27'20"W. Change ident ICT to IC class SABH to H–SAB. Add obstn 3400' MSL 37°34'09"N, 101°21'29"W. Add obstn 1623' MSL 36°32'12"N, 98°06'06"W. Add UNICOM Wellington arpt 37°19'N, 97°23'W.

WILLISTON

40th Edition, July 21, 1966

No hazardous changes.

•WINSTON-SALEM

58th Edition, Oct. 13, 1966

Add obstn 848' MSL 37°02'23"N, 78°16'45"W.

YELLOWSTONE PARK

44th Edition, September 15, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

GADSDEN VORTAC: DME unusable beyond 20 nmi 140-195°.

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000' MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000' MSL 190-290°: below 7000' MSL 320-345° and 005-035°; below 8000' MSL 035-060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500' MSL; 175-240°, 090-145° below 10,500' MSL 040-090°, below 14,000' MSL 300-040°.

FLAGSTAFF VOR: VOR unusable at 40 nmi below 18,000' MSL 325°-340°; below 22,000' MSL 340°-360°; below 18,000' MSL 360°-025°; below 11,500' 025°-305°; below 12,500' MSL 305°-325°.

GRAND CANYON VOR: VOR unusable beyond 40 nmi below 10,000' MSL 177°-210°; below 11,500' MSL 210°-336°; below 13,000' MSL 336°-346°; below 11,500' 346°-120°; below 11,500' MSL 153°-177°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000' MSL beyond 40 nmi from 195-230°.

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000' MSL 152-170° and 200-210° and beyond 6 nmi below 7000' MSL 078-125°.

PRESCOTT VORTAC: VORTAC unusable beyond 40 nmi below 11,000' MSL 145-155° and 175-200°; below 17,000' MSL 200-225°; below 12,000' MSL 225-235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON VORTAC: VORTAC unusable beyond 40 nmi below 15,000' MSL 145-190°; below 14,000' 190-255°; below 10,500' MSL 350-145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000' MSL from 320-045°; below 16,500' MSL 045-065°; below 15,000' MSL 065-080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000' MSL 280-300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346-311° beyond 20 nmi below 3,500' MSL; 312-345° beyond 15 nmi below 5,500' MSL and beyond 30 nmi below 7,500' MSL. MSL.

CALIFORNIA

AVENAL VORTAC: DME unusable beyond 40 nmi below 3000' MSL 320-065° below 4000' MSL, 065-095° below 4500' MSL, 095-125° below 8500' MSL, 125-170° below 7500' MSL, 170-198° below 7000' MSL, 195-230° below 8000' MSL, 230-305°.

BAKERSFIELD VORTAC: VOR portion 121° rad V165 to Arvin Int unusable below 4000'.

BIG SUR VORTAC: DME unusable beyond 40 nmi below 8000' MSL 085-120° below 7000' MSL 120-130° below 6000' MSL 290-320° and below 9000' MSL 320-085°.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000' MSL 324-018° below 9000' MSL 189-217°, below 10,000' MSL 175-189°, below 15,000' MSL 277-324°.

CRESCENT CITY VORTAC: DME restricted 040-180° below 12,000' at 40 nmi and 180-220° below 4000' at 40 nmi.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000' and below 280-290° and 14,000' and below 290-350°

FORTUNA VORTAC: DME unusable below 9500' MSL 050-070° and below 5000' MSL 150-200° beyond 40 nmi.

FRESNO VORTAC: DME unusable below 4000' MSL 200-250°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000' MSL 265-290° and 15,000' MSL 290-310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000' MSL 265-310° below 10,500' MSL 350-040°; below 5500' MSL 125-155°; below 10,500' MSL 155-170° below 14,500' MSL 170-219°; below 31,000' MSL 219-250°; below 25,000' MSL 250-265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180-230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180-230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180-230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180- 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000' MSL from 135-180°, below 7000' MSL from 268-290°. V-201 011° rad beyond 20 nmi below 9000' MSL. DME unusable beyond 40 nmi below 3500' MSL from 180-210°.

NAPA VORTAC: DME unusable beyond 40 nmi below 7500' from 280-045°.

NEEDLES VORTAC: VORTAC unusable below 11,500′ MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: DME unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340-355°, below 8000′ MSL 355-005°, below 9000′ MSL 005-060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360-040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110-130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SAN LUIS OBISPO VORTAC: VOR unusable below 7000′ MSL beyond 7 nmi from 300–090°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050-265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unusable beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072-140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220-280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265-280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL: 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115-125°, beyond 15 mi from 125–135°, beyond 15 mi from 225-235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

CROSS CITY VOR: VOR unusable beyond 16 nmi below 2500′ MSL on the 149° rad.

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

● ST. PETERSBURG VORTAC: VOR unusable 080–120° above 14.500 beyond 50 mi.

TALLAHASSEE VOR: VOR unusable above 17.500′ MSL on 287 rad and beyond 50 mi on 090 rad.

GEORGIA

●ATLANTA VORTAC: VOR radial 197° unusable.

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 138–156°, 170–218°, 250–255°, 285–315°, and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115–210° below 2500′ MSL.

IOWA

ESTHERVILLE VOR: VOR unusable 220–240° beyond 15 nmi.

WATERLOO VORTAC: DME unusable beyond 15 nmi 335–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

●POLK VOR: VOR unusable 360–120°, 190–300°.

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 288° rad beyond 34 mi above 18,000′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

●BOSTON VORTAC: VOR unusable 020–040° beyond 65 nmi above 14,500′ MSL; 000–026° beyond 10 nmi 14,500′ MSL; 026–045° beyond 22 nmi below 3500′ MSL; 026–045° beyond 26 nmi below 4500′ MSL; 026–045° beyond 28 nmi below 5500′ MSL; 026–045° beyond 32 nmi below 7500′ MSL; 045–360° beyond 26 nmi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL.

MICHIGAN

ALPENA VORTAC: DME unusable 260° to 280° below 4000′ MSL beyond 30 nmi.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–005° beyond 15 nmi below 6000′ MSL. 096–103° beyond 30 nmi below 4000′ 104–330° beyond 25 nmi below 3000′; 331–036° beyond 25 nmi below 3500′.

MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335–350° beyond 30 mi below 2,900′ MSL. DME unusable 200–290° beyond 30 nmi below 4000′ MSL, from 290350° beyond 30 nmi below 4500′ MSL, from 350–050° beyond 30 nmi below 4000′ MSL.

●SAWYER VOR: VOR unusable 270–300° and beyond 17 nmi.

●WHITEFISH VORTAC: VOR unusable 075–145° beyond 18 nmi.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′.

FLYING CLOUD VOR: VOR unusable following areas: 242–255° below 5000′ MSL within 30 mi; 242–255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

PARK RAPIDS VOR: VOR unusable following areas: 185–265° beyond 20 mi below 3,000′ MSL; 265–185° beyond 22 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334–082° and 122–204° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3.500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252–260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000' MSL.

BUTTE VORTAC: VORTAC unusable following areas: 005–120° beyond 20 nmi below 10,000' MSL; and 120–325° beyond 20 nmi below 11,000 MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250-030° beyond 25 mi below 10,500' MSL, 030-250° beyond 25 mi below 12,000' MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235-245° beyond 10 mi below 6,800' MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360-065° beyond 20 mi below 10,000' MSL; 065-090° beyond 25 mi below 11,000' MSL; 110–120° beyond 20 mi below 16,000' MSL; 120-240° beyond 20 mi below 10,000' MSL; 240–320° beyond 25 mi below 10,000' MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000' MSL.

MALMSTROM VOR: VOR unusable 250-280° beyond 15 nmi below 7000' MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345-060° beyond 15 mi; 060–095° beyond 31 mi below 12,000' MSL; 095-165° beyond 20 mi below 10,000' MSL; 165–270° beyond 20 mi below 12,000' MSL; 285–315° beyond 20 mi below 12,000' MSL; 315–345° beyond 20 mi; VOR below 11,000' MSL DME below 14,000' MSL. Possible momentary VOR flag activity on V–2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360-040° beyond 30 mi below 14,500' MSL; 040–055° beyond 30 mi below 12,000' MSL; 120–160° beyond 30 mi below 14,500' MSL; 215–230° beyond 20 mi below 14,500' MSL; 230–285° beyond 35 mi below 14,500' MSL; 285–360° beyond 30 mi below 13,500' MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36-55 mi below 3,600' MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055-060°; 15 nmi 115–165°; 15 nmi 255-285°.

BEATTY VORTAC: VOR restricted below 8000' beyond 27 nmi, 060-360°; below 10,000' beyond 10 nmi, 360–060°.

● BOULDER CITY VORTAC: VOR unusable beyond 20 nmi above 9000' MSL 185-210°.

COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000' MSL 060-075°; beyond 15 nmi below 10,000' MSL 155–180°; beyond 25 nmi below 11,200' MSL 300–015° acct reduced comerage. DME unusable beyond 15 nmi below 14,000' MSL 065–075°; below 17,000' MSL 150-235°; below 16,000' MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245-260°; 30 nmi 260–290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500' MSL from 120–170° and 240–320°; below 14,000' MSL 170–220° and 320–340°; below 15,000' MSL from 220–240°; below 12,000' MSL from 340–010°; beyond 10 nmi below 13,000' MSL from 010–120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500'.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500' MSL from 190° to 220° below 12,500' MSL from 220° to 255°, below 14,500' MSL from 255° to 270°, below 16,000' MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000' MSL from 055 to 100°; 14,000' MSL from 100 to 110°; 17,000' MSL from 110 to 135°; 16,000' MSL from 285 to 340°.

RENO RBN: H facility unusable 030–140° beyond 10 nmi, 140–250° beyond 25 nmi, 250–030° beyond 20 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000'. DME unusable below 14,500' beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500' MSL beyond 40 nmi from 020–075° and 220–235°.

SPARKS RBN: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH VORTAC: VOR unusable below 13,000' MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000' MSL 005–030°: below 22,500, 185–210°: below 15,000, 335–350°; and below 12,000', 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000'.

LEBANON VOR : VOR unusable 110–115° beyond 35 mi below 6,900' MSL.

NEW JERSEY

ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1500' MSL.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000' MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000' MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000' MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500' MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000' MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000' MSL: 001–025° beyond 20 nmi below 13,300' MSL; 150–175° beyond 30 nmi below 10,500' MSL; 176–210° beyond 20 nmi below 10,500' MSL; 240–265° beyond 35 nmi below 10,700' MSL; unusable 001–010°.

SANTA FE VORTAC: VORTAC unusable 015–030° beyond 30 mi below 14,600' MSL.

NEW YORK

● ALBANY VORTAC: VOR unusable 115–135° beyond 10 nmi below 14,500', beyond 50 nmi below 18,000', beyond 75 nmi below 45,000'.

BINGHAMPTON RBN: Erratic ADF action 4–13 mi SSE of facility at 3,500' MSL.

CANARSIE VOR: VOR unusable 060–095° beyond 15 mi below 4,000′ MSL.

DEER PARK VORTAC: VOR unusable following areas: 070–180° beyond 35 mi below 1,700′ MSL; 180–240° beyond 30 mi below 1,700′ MSL; 240–350° beyond 25 mi below 2,200′ MSL; and 350–040° beyond 30 mi below 2,200′ MSL.

DUNKIRK VOR: VOR unusable 120–180° beyond 22 mi below 4,000′ MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500′ MSL in following areas: 115–140° beyond 35 mi; 140–160° beyond 30 mi; 160–180° beyond 35 mi; 190–210° beyond 30 mi; and 210–215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305–315° beyond 35 mi below 7,000′; 315–350° beyond 30 mi below 8,000′.

HAMPTON VORTAC: DME unusable following areas: 280–325° beyond 35 mi below 1,700′ MSL; and 325–355° beyond 30 mi below 2,000′ MSL.

HUGUENOT VORTAC: VOR unusable 210–230° beyond 20 mi below 6,500′ MSL.

ITHACA VOR: VOR unusable 360–150° beyond 25 mi below 3,800′ MSL.

KENNEDY VORTAC: VOR unusable below 1,500′ MSL in the following areas: 015–030° beyond 30 mi; 030–045° beyond 26 mi; 060–075° beyond 24 mi; 075–100° beyond 30 mi; 100–150° beyond 28 mi; 150–165° beyond 26 mi; 165–215° beyond 30 mi; 215–270° beyond 26 mi; and 350–015° beyond 35 mi. VOR unusable below 2,000′ MSL in following areas: 045–060° beyond 24 mi; 270–340° beyond 26 mi; and 340–350° beyond 30 mi. DME unusable within 9 nmi of VORTAC.

KINGSTON VOR: VOR unusable 045–050° beyond 35 mi below 4,300′ MSL and 070–140° beyond 30 mi below 3,400′ MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015–025° beyond 20 mi below 1,900′ MSL; 025–045° beyond 35 mi below 2,700′ MSL; 065–075° beyond 30 mi below 1,700′ MSL; 075–135° beyond 25 mi below 1,700′ MSL; 135–145° beyond 35 mi below 1,700′ MSL; 165–205° beyond 15 mi below 1,700′ MSL; 205–215° beyond 35 mi below 1,700′ MSL; 215–220° beyond 30 mi below 1,700′ MSL; 220–230° beyond 25 mi below 1,700′ MSL; 230–240° beyond 30 mi below 1,700′ MSL; 240–250° beyond 20 mi below 1,700′ MSL; 250–260° beyond 10 mi below 2,500′ MSL; 260–270° beyond 20 mi below 1,700′ MSL; 270–285° beyond 25 mi below 1,800′ MSL; 285–295° beyond 30 mi below 2,700′ MSL; 295–305° beyond 35 mi below 2,700′ MSL; 315–325° beyond 35 mi below 3,200′ MSL; 325–005° beyond 25 mi below 2,700′ MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260–270° beyond 35 mi below 6,000′ MSL.

ROCHESTER VOR: VOR unusable 045–065° beyond 12 mi.

SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360–015° below 5000′ MSL; 015–025° below 4500′ MSL; 025–100° below 5000′ MSL; 100–165° below 9000′ MSL; 165–180° below 7000′ MSL; 180–190° below 6500′ MSL; 190–200° below 7000′ MSL; 200–220° below 6000′ MSL; 220–240° below 5000′ MSL; 240–295° below 5500′ MSL; 295–305° below 7000′ MSL; 305–360° below 4500′ MSL.

NORTH CAROLINA

CHARLOTTE VORTAC: VOR unusable 010°–050°.

ELIZABETH CITY VOR: VOR unusable 026–042° and 085–100° all altitudes; 276–312° below 5000′ MSL. Use Franklin VOR 130° radial for V–290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500′.

GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290–320° and 100–145°.

●GREENSBORO VORTAC: VOR unusable beyond 30 nmi below 14,500′ MSL 350–010°.

NORTH DAKOTA

DICKINSON VORTAC: VOR unusable 090–120° beyond 40 mi btn FL 145 and FL 310 GTF Center RADAR service available.

OHIO

AKRON VORTAC: VOR unusable 030–080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500′ MSL.

BELLAIRE VORTAC: VOR unusable 325–345° below 6000′ MSL.

BRIGGS VORTAC: VOR unusable 330–010°, 120–145° and 305–325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033–070°, 085–135°, 155–225°, 250–280° and 295–023°.

STRONGSVILLE VOR: VOR unusable 080–200° beyond 35 nmi.

YOUNGSTOWN VORTAC: VORTAC unusable beyond 30 nmi from 140–180°.

OREGON

●ASTORIA VORTAC: VOR unusable beyond 40 nmi below 7300′ MSL 075–130°; below 6500′ MSL 130–180°; below 4000′ MSL 180–270°; below 2500′ MSL 270–330°; below 6500′ MSL 330–360°.

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000′ MSL 020–085°; 18,000′ MSL 085–120°; 12,000′ MSL 190–340°; 14,000′ MSL 340–020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 600′ MSL 150–170°; 6000′ MSL 320–350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000′.

REDMOND VORTAC: VORTAC unusable below 11,000′ MSL 190–210°; below 13,000′ MSL 210–240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020–060° beyond 26 mi below 3,500′ MSL.

ALTOONA VOR: VOR unusable 070–100°, 235–260°, 290–350°.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VORTAC: VOR unusable 070–085° beyond 10 nmi.

CLARION VOR: VOR unusable 215–223°.

ELLWOOD CITY VORTAC: VOR unusable 310–335°.

HARRISBURG VORTAC: VOR unusable in following areas: 105–140° beyond 26 mi; 140–165° beyond 30 mi; and 195–230° beyond 28 mi. DME unusable 325–360° beyond 30 mi; and 360–025° beyond 35 mi.

IMPERIAL VORTAC: VOR unusable 150–170° below 8,000′ MSL and 345–360° below 14,500′ MSL.

LANCASTER VOR: VOR unusable in following areas: 190–220° beyond 25 mi below 3,000′ MSL; 220–250° beyond 25 mi below 4,000′ MSL; 320–340° beyond 15 mi below 5,000′ MSL; 320–340° beyond 25 mi below 6,000′ MSL.

LATROBE VOR: VOR unusable beyond 20 mi.

SELINSGROVE VORTAC: VOR unusable in following areas: 105–115° beyond 26 mi below 3,000′ MSL; 210–230° beyond 35 mi below 2,500′ MSL; and 250–285° beyond 26 mi below 3,400′ MSL. DME unusable 100–115° beyond 30 mi below 3,000′ MSL; 115–170° beyond 35 mi below 2,900′ MSL; 190–300° beyond 35 mi below 3,500′ MSL.

YARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250–265° beyond 17 mi; 265–280° beyond 10 mi; and 280–290° beyond 17 mi. DME unusable 225–275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

PROVIDENCE VORTAC: VOR and DME unusable 220–310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

ALLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

FLORENCE VORTAC: VOR unusable 360–010° beyond 20 mi below 5000′ MSL.

TENNESSEE

● KNOXVILLE VORTAC: VOR unusable 140–175° all alts, 175–186° above 17,000′ MSL.

TEXAS

AMARILLO VORTAC: DME unusable 110-235° beyond 15 NM below 7000′ MSL.

AUSTIN VORTAC: VOR unusable 260–320° beyond 35 mi below 3,500′ MSL.

EL PASO VORTAC: DME unusable 265–300′ beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085–210° beyond 35 mi below 2,500′ MSL.

SALT FLAT VORTAC: VORTAC unusable 031–049° beyond 30 NM below 15,000′ MSL.

UTAH

CEDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi 090–125° and beyond 35 nmi 125–150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040-080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330–005° and below 13,500′ MSL beyond 40 nmi from 170–200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180–220°; below 12,000′ MSL 280–310°; below 11,000′ MSL 310–330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025–115°, 30 nmi, 235–330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360–055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010–035°; below 16,000′ MSL 035–050°; below 15,000′ MSL 275–285°; below 14,000′ MSL 285-295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010–020°; below 20,000′ MSL 020–030°; below 23,000′ MSL 030–060°; below 24,000′ MSL 060–080°; below 19,000′ MSL 080–095°; below 17,000′ MSL 095–125°; below 16,000′ MSL 125–140°; below 16,000′ MSL 195–210°; below 10,000′ MSL 280–290°; below 16,000′ MSL 350–010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220–260°.

VERMONT

BURLINGTON VOR: VOR unusable 080–155° beyond 30 mi below 9,000′.

MONTPELLER VOR: VOR unusable 205–280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230–270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360–010° beyond 5 nmi, 010–020° beyond 10 nmi, 020–030° beyond 20 nmi, 030–040° beyond 10 nmi, 040–060° beyond 20 nmi. 190–210° beyond 5 nmi, 230–240° beyond 20 nmi, 240–300° beyond 5 nmi, 310–330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050–075° beyond 30 mi; 075–095° beyond 20 mi; 105–120° beyond 35 mi; and 165–215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355–010° beyond 18 nmi below MEA 030–070° beyond 20 nmi below MEA 170–190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215–250° beyond 8 mi below 1,800′ MSL and 215-270° between 14,500–18,000′ MSL.

LINDEN VORTAC: DME unusable 140–180° beyond 25 mi below 3,500′ MSL and 180–225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110–220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 286–360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130–150°, 4500′ MSL and 150–290°. 4000′ MSL. VOR intermittent roughness may be observed on V–23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RBN: H facil unusable 100–130° below 6500′ MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280°. VOR 348° rad unusable below 4500′ VOR intermittent roughness may be observed on V287, 148° rad below 7000′ from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270°. Coverage within R–6715 from 270–320° not flt checked.

PORT ANGEL8S VOR: VOR coverage 40 nmi; 220–110° at 7000′; 110-140° at 14,500′; 140–150° at 20,500′; 150–170 °at 29,000′; 170–190° at 20,500; 190–220° at 16,000′.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000′ MSL from 158–165° beyond 20 nmi below 12,000′ MSL from 305–355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000′ MSL and beyond 50 nmi below 18,000′ MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000′, 355–020° and 148–176°; below 7500′ from 130–150°; below 10,500′ from 020–060° and 110–130°; below 12,700′ from 065–110°.

WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000′ MSL 000–020° beyond 30 nmi below 20,000′ MSL 020–075° beyond 40 nmi below 14,000′ MSL 075–090° below 18,000′ MSL 090–190° below 19,000′ MSL 190–240°.

● YAKIMA VORTAC: DME unusable beyond 40 nmi below 16,000′ MSL 340–010°, 14,000′ MSL 010–040°, 10,000′ MSL 040–240°, 11,000′ MSL 240–280°, 12,000′ MSL 280–340°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325–350° beyond 20 mi below 5,000′ MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100–150° and 230–060° beyond 20 mi below 3,300′ MSL.

TIMMERMAN VOR: VOR unusable 300–310° beyond 35 mi below 3,400′ MSL.

WAUSAU VORTAC: DME unusable 300–310° beyond 30 nmi below 3000′ MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion on V–85 20–25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000′ MSL 160–175°; below 15,000′ MSL 175–200° and below 16,500′ MSL 200–230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed): bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Aberdeen, S.D.: 301°; over apch end rnwy 30; 1700′.

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom Lake; 2800′. Alternate for lgt acft 099°; 9 NM clt twr and bcn; 2800′.

Alexander, La. (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

● **Allendale, S.C.** (Barnwell Co. Arpt): 342°; 15 mi, over N/S rnwy.

Alliance, Nebr.: 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

● **Alpena, Mich.:** 256°; 10.3 NM, over Dam NE corner of Fletchers Pond; 2100′.

● **Anniston, Ala.;** 082°; 9.5 NM, over center of segmented circle; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

● **Asheville, N.C.** (Muni): 278°; 13.6 NM, over ctl twr; 3200′.

Athens, Ga.: 025°; 11.5 NM, over red brick bldg inside tfc circle at crossroads in Danielsville; 2000′.

● **Augusta, Ga.** (Bush Fld): 140°; 12.8 mi directly over No. 17 of rnwy 17; 1200′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Battle Creek, Mich.: 262°; 11 mi from VORTAC over power house stacks 1 mi E of Comstock, Mich.; 2000′.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

● **Beaumont, Tex.** (Jefferson County): 057°; water twr. aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16-34; 1000′ MSL.

Bemidji, Minn: 131°; over apch end rnwy 13; 1800′.

Big Spring, Tex: 199°; 11.7 mi, over the rdo bcn; 3600′.

Billings, Mont: 073°; over int of rnwys 22-27; 4600′.

Blackwater, Mo.: 321°; 17.5 NM, over Marshall VORTAC bldg; 2000′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Blytheville, Ark.: 094°; 5.8 mi, over hangar adj to Admin Bldg; 1300′.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brainerd, Minn.: 294° over centerline apch end rnwy 30; 1800′.

Britton, Tex: 285°: 13.5 mi, int hwy 81S and Farm Road #787 NW arpt; 1700′.

Brownwood, Tex.: 169°; 6.2 mi over arpt bcn; 2600′.

● **Brunswick, Ga.** (McKinnon): 025°; 7.2 mi, over rot bcn; 1050′.

Burlington, Iowa: 296°; 11.4 NM, over rdo twr; 2500′.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

Butte, Mont.: 094°; intersection of rnwy 29-33; 6500′.

Cape Girardeau, Mo.: 032°; 3.2 NM, over smoke stack NNE; 1700′.

● **Carleton, Mich.** (Detroit Metro): 031°; 11 NM, the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21-25-30; 6300′.

Centralia, Ill. (Muni): 027°; 6.1 NM, at apch end of rnwy 36; 2000′.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 18.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 NM; 9000′.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.: 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

VOR RECEIVER CHECK POINTS

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

●**Crestview, Fla.:** 106°; 8.6 mi, over rot bcn twr; 1200′.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over metal hangar; 2900′.

Cut Bank, Mont: 311°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

●**Danville, Ill.** (Vermillion Co.): 194°; 5.5 NM, int of rnwys 21 and 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Des Moines, Iowa: 293°; 5.5 NM, over grain elev Cummings, Iowa; 2500′.

Devils Lake, N. Dak.: 178°; 7.2 nmi over 2087′ MSL rdo twr; 2600′.

Dublin, Ga. (Muni): 069°; 7.8 NM, over SW end NE/SW rnwy; 1400′.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin Fld): 004°; 6 NM, over white water twr in Smackover; 1500′.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

El Paso, Tex: 232°; 4.2 mi, over water twr, 2 mi SE of arpt; 5000′.

El Toro MCAS, Calif (Orange City): 254°; over int rnwys. 19R and midfld txwys; 200′.

Emporia, Kans.: 047°; 8.5 NM, over schoolhouse in Neosho Rapids, Kans: 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evansville, Ind. (Dress Memorial): 056°; 13 miles over intersection E/W and NE/SW runways; 2000′.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; 7 NM, over center of Open Air Theatre NE of the town of Fredericktown; 2300′.

Fayetteville, Ark.: 183°; 14.3 mi, white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; 8 NM, over water twr at Parktown, N.C.; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

Flippin, Ark: 051°; 5.0 mi, dual water twr at Mountain Home; 1900′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; 16 NM, water twr N side E/W hwy; 2600′.

Fort Smith, Ark.: 233°; 5.2 NM, water tank at N edge of arpt; 1500′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800′.

Fulton Co., Ga.: 261°; 11.5 NM, over water twr tank in Douglasville, Ga; 2500′.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; 19 NM; at RR tracks and Main St. crossing in town of Cimarron, Kans; 3800′.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Muni): 083°; 16 NM, over water twr NE edge of Town of Brewster, Kans; 4000′.

Gordonsville, Va.: 305°; over lclzr ant at apch end of rnwy 21, Charlottesville-Abermarle Arpt., 16 NM from GVE-VOR; 2500′.

Grand Island, Nebr.: 142°; 5.5 NM; over smoke stack; 3100′.

Grand Junction, Colo. (Walker Fld): 059°; int rnwys 22 and 29; 6500′.

Grants, N. Mex: 295°; 12.7 mi, over FSS adj to rnwy; 7000′.

Greeley, Colo. (Weld Co. Arpt): GLL 205°; 5.8 NM, over Trml Bldg; 6100′.

Hallsville, Mo.; 225°; 14 NM; Int of E/W and N/S rnwys over Columbia Muni Arpt, Mo; 2700′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hastings, Nebr.: 266°; 11 NM; over RR crossing in center of town of Kenesaw; 3200′.

● **Hattiesburg, Miss.** (Muni):149°; 10 NM, over water twr and rot lgt bcn on arpt; 1150′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C. (Muni): 225°; 10.2 NM, over end rnwy 24; 2200′.

Hill City, Kans.: 057°; 20 NM; Hill City Arpt bcn lgt; 4200′.

Hobart, Okla.: 353°; 7 mi, centerline of N/S rnwy; 2500′.

Hoquaim, Wash. (Bowerman); 059°; 8.5 NM, W end and center rnwy 6; 1000′.

● **Houghton, Mich.** (County Meml): 241°; 3.5 NM, over WHDF com. bdcst twr; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Hutchinson, Kans.: 033°; 5 NM, apch end rnwy 3 Hutchinson Muni Arpt; 3500′.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Iowa City, Iowa: 019°; over arpt bcn; 2000′.

●**Jack's Creek, Tenn.** (McKellar): 267°; 27 NM, over bcn twr; 1500′.

● **Jackson, Miss.** (Hawkins): 189°; 10.8 NM, over int rnwys 11–29 and 34–16; 1300′.

Janesville, Wis.: 035°; 4.3 mi, over end of rnwy 04; 1800′.

Jefferson City, Mo.: 123°; 9.1 NM over hwy bridge on Osage rvr; 2500′ MSL.

● **Joliet, Ill.:** 102°; 6.5 NM, over centerline of NW end of NW/SE rnwy; 1500′.

Kalispell, Mont (Flathead Co. Arpt): 314°; apch end rnwy 9; 4000′.

Kearney, Nebr.: 215°; 4.8 NM, over rdo twr KGFW; 3200′.

● **Keeler, Mich.:** 266°; 13.3 NM, over int of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; 8.2 NM, over water twr at La Plata, Mo; 2500′.

● **Kokomo, Ind.** (Marion Co. Arpt): 097°; 17.5 NM, over int NW/SE and NE/SW rnwys; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

● **Lafayette, Ind.:** 135°; 10.4 NM, over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa (Lamoni); 041°; 12 NM, over hwy "Y" 1 NM W of Leon, Iowa; 2200′.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

● **Laurel, Miss.** (Muni): 025°; 17 NM, over water twr and rot lgt bcn E side of arpt; 1250′.

Lawrenceville, Va.: 123°; over arpt bcn; 1500′.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; 8.5 NM, grain elev along RR track; 3900′.

Lincoln, Nebr.: 082°; 9.8 NM, grain elev Waverly, Nebr; 2500′.

● **Litchfield, Mich.:** 050°; 18 NM, NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Muni): 050°; 6.3 NM, rdo twr; 1800′.

Malden, Mo.: 349°; 14.8 NM, RR crossing 0.5 NM E of Dexter, Mo; 1500′.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Manhattan, Kans. (Mun): 062°; 6 nmi over RR bridge SE; 2,500′.

● **Manitowoc:** 162°; 1.9 NM over Portland Cement Co. Stack; 1900′.

Marion, Ill.: 274°; 12 NM, int rnways 6–24 and 18–36 at Southern Arpt; 1500′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

Maxwell, Calif. (Willows-Glen Co. Arpt): 342°; over apch end rnwy 34; 600′.

● **McComb, Miss.** (Pike Co.) :248°; 11 mi, rot arpt bcn; 1500′.

McCook, Nebr.: 311°; 8.5 NM, over int of rnwys 8 and 12; 3800′.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis.: 134°; 30 nmi over Horlick-Racine arpt; 2100′.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Monore, La.: 025°; 6.25 NM, over watertower 1 NM No. of arpt; 1100′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys: 3500′.

● **Montgomery, Ala.** (Dannelly): 319°; 6.1 NM, over water twr; 1300′.

Monticello, Ark.: 305°; 5.7 nmi over white water twr; 1500′.

● **Muncie, Ind.:** 179°; 8 NM, RR between Cowan and Oakville, Ind.; 2500′.

Myrtle Beach, S.C. (Crescent Beach Arpt): 238°; 6 mi, over silver water tank; 1100′.

Napa, Calif.: 046°; over arpt bcn; 500′.

Naperville, Ill.: 328°; 10 NM, over RR underpass lctd ½ NM NE of the DuPage Co. Arpt; 2000′.

● **Nashville, Tenn.:**242°; 10.2 NM, over WSM rdo twr near Brentwood, Tenn.; 2500′.

Neola, Iowa: 047°; 18.3 NM, over grain elev Harlan, Iowa: 2500′.

Neosho, Mo.: 343°; 19 NM, over center triangle formed by the int of 3 rnwys of Joplin, Mo. Muni Arpt; 2500′.

New Bern, N.C.: 261°; 11 NM, over int of E/W rnwys Oak Grove (navy) arpt; 1100′.

New Orleans, La. (Lakefront Arpt): 081°; over Lakefront twr.

Newton, Iowa: 142°; 8 NM, apch end rnwy 31; 2500′.

Norfolk, Nebr.: 095°; 10.5 NM, over racetrack Stanton, Nebr; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

North Platte, Nebr. (Lee Bird): 083°; 17 NM, over water twr Brady, Nebr; 4000′.

Okmulgee, Okla.: 229°; 6 NM, smoke stack in Phillips refinery yard; 1900′.

Omaha, Nebra. (Eppley Fld): 310°; 10.2 NM, apch end rnwy 32; 2500′.

O'Neil, Nebr.: 117°; 9 NM, at int of E/W road and the RR 1/2 NM SE of Inman, Nebr; 3000′.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 3.5 nmi from VOR.

Ottumwa, Iowa (Muni); 303°; 6.9 NM, int of rnwys 32 and 22. 2500′.

Park Rapids, Minn.: 208°; over northern most of two twrs 5.2 nmi; 2100′.

● **Peck, Mich.:** 163°; 23 NM, over apch end rnwy 3 on St. Clair Co. Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 3300′.

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C. (Southern Pines Arpt): 086°; 9.5 NM, over windsock on top of hangar; 1500′.

Plainview, Tex. (Hale Co.): 024°; 6 NM, int rnwys 4–22 and 12–30; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500′.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450′.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800′.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

Presque Isle, Me. (Loring AFB): 184°; Spragueville LFR site; 2000′.

Princenton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo, Colo. (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 NM NW of arpt; 7300′.

Quitman, Tex.: 241°; 14.5 mi, water tank in town of Alba, Tex.; 1500′.

Rawlings, Wyo. (Muni): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300′.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000′.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

● **Roberts, Ill.:** 074°; 6 NM over int E/W hwy, N/S RR ½ mi N Buckley, Ill.; 1600′.

Rochester, Minn.: 024°; int rnwys 13–31 and 2–20 8.5 NM; 3000′.

Roswell, N. Mex: 027°; 4.9 mi, over apch end rnwy 3; 4000′.

Russell, Kans.: 002°; 16 NM, over water twr in center of town of Wilson, Kans; 2000′.

Sacramento, Calif.: 015°; apch end rnwy 02; 100′.

● **Saginaw, Mich.** (Tri-City): 058°; 6.7 mi over hwy int US #10 and I 75; 1700′.

St. Joseph, Mo. (Rosecrans Meml): 167°; 10.7 NM, apch end rnwy 17; 2500′.

Salina, Kans.: 117°; 10 NM, over grain elevator town of Kipp; 2500′.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

● **Samsville, Ill.:** 064°; 19 NM, over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt, Ill.; 1500′.

● **Sault Ste Marie, Mich.** (Mun): 336°; 4.25 NM, int E/W and NW/SE rnwys; 2100′.

Sayre, Okla. (Muni): 175°; 8 mi, over rot bcn; 3000′.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 5 nmi; 5000 MSL.

Shreveport, La. (Downtown): 290°; 10 NM, over white water twr; 1500′.

Shreveport, La. (Greater Shreveport): 175°; 19.3 mi, over Admin Bldg; 1200′.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000′.

Sulphur Springs, Tex.: 223°; 7 mi, over projector booth and snackbar within outdoor movie; 1600′.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

● **Terre Haute, Ind.** (Hulman): 229°; 3 NM, int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 122°; 5.1 mi, over int rnwys 13–31 and 4–22; 1400′.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

Thief River Falls: 348°; rdo twr NW edge of city; 2500′.

Toccoa, Ga.: 179°; 6 NM, over arpt bcn; 2000′.

● **Traverse City, Mich.** (Muni): 342°; 4.5 NM, at int of N/S and E/W rnwys; 1600′.

Troy, Ill.: 322°; 11 NM, over int N, S/E, W rnwys at Civic Meml Arpt., Alton, Ill; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

● **Valdosta, Ga.:** 006°; 6 mi; over lgt bcn E side of arpt; 1200′.

Vandalia, Ill.: 170°; 5.8 NM, centerline at N end N/S rnwy; 1700′.

Vienna, Ga. (Cordele Arpt): 226°; 19 NM, over center of NE/SW rnwy; 1300′.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000′.

● **Waycross, Ga.:** 097°; 8 mi, over wind tee in center of arpt; 1200′.

● **West Point, Ind.:** 036°; 9.6 NM, over int of rnwys Purdue Univ. Arpt; 2000′.

Wichita, Kans. (Muni): 162°; 4.3 NM, apch end rnwy 14; 3300′.

Wichita Falls, Tex.: 011°; 8 NM, at bridge over Red River; 2100′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11: 2600′.

Wilmington, N.C. (New Hanover Co.): 204°; 5.5 NM over wea radar ant on arpt; 1100′.

Wink, Tex. (Winkler Co.): 149°; 5.9 NM, over int rnwys 22 and 13; 3900′.

Winner, S.D. (Mun): 201°; over center of race track 7.8 nmi; 3000′.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C. (Smith-Reynolds): 295° (GSO VORTAC); 13.5 NM, over ctl twr; 2000′.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600′.

Yankton, S.D.: 257°; 7 nmi over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17–35; 400′.

GROUND

● **Albany, Ga.:** 150°; 6 NM, center of tie down area on N edge of ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

● **Amarillo, Tex.** (AFB/Muni): 207°; 4.5 mi, lctd 985 SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt.): 002°; 3.2 mi, S end on curve of txwy 50′ W apch end rnwy 35 centerline.

Anderson, S.C. (Muni): 039°; 6 NM, on ramp in front of Trml Bldg.

Ardmore, Okla. (Muni): 042°; 9 mi; adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17-35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13-31.

Baltimore, Md. (Friendship Int'l): Lctn #1-293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips): 166°; 4 mi, opposite Trml on parallel taxi strip.

● **Beaumont, Tex.** (Jefferson County): 052°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County): 140°; 5.1 mi, ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

Bismarck, N. Dak: 275°; N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 023°; taxiway in front of Admin Bldg.

● **Bristol, Tenn.** (Tri-City): 282°; 13.2 mi, on ramp S of Trml Bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex: 334°; 5.8 mi, immediately W of FSS and twr bldg on ramp.

Cedar Rapids, Iowa; 080°; rnwy runup pad apch end rnwy 13.

Chanute, Kans.: 051°; 5.7 NM, apch end rnwy 12.

Chattanooga, Tenn. (Lovell): 332°; 5.1 NM, centerline S txwy a point 175′ NE of centerline rnwy 32.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; 3.7 mi, int of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

● **College Station, Tex.** (Eastwood): 097°; 2.8 NM, on W edge of parking ramp.

● **Columbia, S. C.** (Metro): Lctn #1: 332°; 6 NM, E/W txwy (parallels rnwy 10-28). Lctn #2: 325°; 6.5 NM, W end of E/W txwy.

Columbia, S. C. (Owens Fld): 022°; 7.5 NM compass rose on parking ramp.

Columbus, Ga. (Muscogee Co.): 145°; 7.1 NM pointed circle W end of main ramp area.

● **Columbus, Miss.** (Lowndes County): 096°; 6.8 mi, on center txwy between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

● **Cross City, Fla.:** 300°; 4 mi, txwy near wind indicator and rot bcn lgt.

Dalhart, Tex.: 170°; 3.9 mi, SE corner of main ramp.

Dallas, Tex. (Addison): 159°; .75 mi, int of center and parallel txwys.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City Kans.: 150°; 5.3 NM, center of NW end of rnwy 14.

● **Dothan Arpt, Ala.:** 334°; 3.0 mi, on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl): 160°; int of SW ramp and txwy T–2.

Dubuque, Iowa: 334°; on ramp at Trml Bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 3 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld): 329°; 6 mi, Trml ramp at intsxn N/S and ctr txwys.

● **Dyersburg, Tenn.:** 250°; 4.2 mi, int of ramp and center txwy.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): 028°; 5 NM, lctd on txwy leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5-23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt. aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Enid, Okla. (Woodring Fld): 348°; 0.5 mi, ramp W of Trml Bldg.

Erie, Pa. (Erie-Port Erie): 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Admin Bldg.

Florence, S.C.: 235°; 4.3 NM, on txwy W of the end of rnwy 18.

Fort Bening, Ga. (Lawson AAF): Lctn #1–021°; .8 NM, runup area on txwy at apch end of rnwy 20. Lctn #2—130°; 1 NM, runup area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

● **Ft. Lauderdale, Fla.** (Hollywood Intl Arpk): 120°; 1 mi, on ramp in front of Trml Bldg.

● **Fort Myers, Fla.** (Page): 172°; 1 mi, N side of Trml ramp.

Fort Riley, Kans. (Marshall AAF): 032°; 6.3 NM, on parking ramp adj to radar antenna.

VOR RECEIVER CHECK POINTS

Fort Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex. (Pecos Co.): 116°; 4 mi, on ramp N of Trml.

Frederick, Md. (Mun): 359°; txwy between rnwys near apch end rnwy 23.

Gage, Okla.: 109°; 5.7 mi, int txwys, NW corner of ramp.

Gallup, N. Mex. (Senator Clarke Fld): 050°; 5.2 mi, ctr of txwy in front of Term Bldg.

Goldsboro, N.C. (Seymour Johnson AFB): 280°; .6 NM, run up pad at apch end rnwy 8.

Great Falls, Mont. (Intl): #1–027°; int NE/SW and E/W txwys adjt to apch end rnwy 34; 2.4 mi. #2–027°; on NE/SW txwys 100′ SW rnwy 25; 3.0 mi.

Green Bay, Wis. (Austin-Straubel): 141°; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C. (High Point Arpt): 033°; 3.1 NM, ramp in front of twr.

● **Greenwood, Miss.:** 060°; 4.3 mi, central txwy adj to ramp.

Greenwood, S.C. (County): 251°; .7 NM, on txwy apch end of rnwy 9.

● **Gulfport, Miss.:** 098°; 0.7 mi, on ramp 100′ NW of ctl twr.

Harrison, Ark.: 131°; 4.3 mi, int txwy and ramp.

Helena, Mont.: 235°; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County): 030°; 3.5 mi, on runup pad apch end rnwy 3.

Hoquiam, Wash. (Bowerman): 059°; W end and center rnwy 6; 1000′.

Hot Springs, Ark. (Meml Fld): 246°; .75 mi, runup pad rnwy 5.

Houston, Tex.: 292°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld): 007°; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 359°; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

● **Key West, Fla.** (Intl): 127°; 3 mi, NW portion of ramp.

Kinston, N.C. (Stallings): 230°; 3.9 NM, 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga. (Callaway Arpt): 106°; 7 NM, on compass rose at taxi strip int aprxly 500′ due S of Admin Bldg.

● **Lakeland, Fla.** (Muni): 352°; 0.8 mi, txwy leading from ctr of fld to Term.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

● **Lansing, Mich.** (Captal City): 053°; 5.4 NM, center of apch end rnwy 6.

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351° last txwy W side apchg rnwy 19.

Las Vegas, N. Mex: 231°; .7 mi, on apron N of FSS bldg.

Lawton, Okla.: 349°; 4.6 mi, int of Trml ramp and S taxi strip.

Little Rock, Ark. (Adams): 315°; 4.5 mi, on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

Longview, Tex. (Gregg Co.): 126°; 2.5 mi, N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 103°; 4.5 mi, runup pad apch end rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen): 026°; mid txwy to rnwy 17–35.

Manhattan, Kans. (Muni): 145°; 0.5 NM, on ramp in front of Trml Bldg.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Muni): 314°; 5 NM, int NW/SE and NE/SW txwy, 450 E apch end rnwy 30.

● **Marianna, Fla.:** 310°; 3.6 mi, ESE end txwy 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

McAlester, Okla. (Muni): 350°; 2 mi, int ramp and taxi strip.

McAllen, Tex. (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S rnwy. Lctn #2—012°; in front airline trml on gate two loading spot,.

● **Melbourne, Fla.** (John F. Kennedy Meml): 145°; 0.8 mi. NE corner of parking ramp.

● **Meridian, Miss.** (Key): 121°; 3.8 mi, run-up ramp for rnwy 23.

Midland, Tex. (Air Trml): 178°; 4.3 mi, int txwy C and ramp in front of Trml Bldg.

Miles City, Mont: 036°; on txwy leading to rnwy 30.

Mineral Wells, Tex.: 307°; 4.5 mi, int of txwy and rnwy 31.

Missoula, Mont. (County): 340°; 5′ from edge of ramp in front of Admin Bldg.

● **Mobile, Ala.** (Bates): Lctn #1: 107°; 7.9 mi, int of N/S and E/W txwys, E of rnwy 18-36. Lctn #2: 109°; 7.6 mi, int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

Morgantown, W. Va.: 337°; on txwy in front of Term Bldg.

● **Muscle Shoals, Ala.:** 289°; 6.3 mi, E end rnwy 11–29, equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial) : 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX-AMA) : 253°; on ramp in front of Admin Bldg.

● **New Bern:** 088°; on compass rose at ramp.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

New Orleans Intl, La. (Moisant Fld) : 235°; perimeter txwy 113′ E of gas truck parking area, 394′ S of E/W txwy, 408′ W of concourse A gate 8, mrkd by yellow and white circle.

Norfolk, Va. (Mun) : 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l) : 081°; middle of pad between rnwys 27L and 27R.

● **Ocala, Fla.** (Muni) : 139°; 0.6 mi, on ramp near Trml Bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bldg.

● **Orlando, Fla.** (Herndon) : 300°; 0.8 mi, midpoint of N/S txwy on W bndry of arpt.

Paducah, Ky. (Barkley) : 040°; on txwy apchg end of rnwy 22.

● **Pahokee, Fla.:** 344°; 5 mi, overrun area N end of rnwy 17.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

● **Panama City, Fla.** (Bay Co. Arpt) : 195°; 0.6 mi, N/S txwy 1050′ N of Term Bldg.

Paris, Tex. (Cox Fld) : 348°; 5.6 mi, int of N/S and E/W rnwys.

Parkersburg, W. Va. (Wood County) : Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

.**Pasco, Wash.:** 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Muni) : 133°; 5.5 mi, on ramp adj to center txwy.

● **Pellston, Mich.** (Emmet Co.) : 239°; 6.6 NM, int of centerlines of N/S and E/W txwys.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Philadelphia, Pa. (North Philadelphia) : 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State) : 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider) : 179°; 4 mi int of ctr txwy and N/S rnwy.

Ponca City, Okla.: 101°; 3.0 mi, taxi strip at junction to trml ramp.

● **Pontiac, Mich.:** 114°; 5.7 NM, over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg; 2.9 nmi.

Quincy, Ill. (Quincy-Bladwin Fld) : 030°; 7.4 NM, at int of NE/SW txwy N of Trml Bldg.

Raleigh, N.C.: 244°; 1 NM, end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Redding, Calif. (Mun) : 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum) : 099°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.) : 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1–19 and 305′ from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn-around E end rnwy 25; 1.9 nmi Lctn #2—261°; in center of turn-around W end rnwy 7; 3.1 nmi.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 261°; 4.3 NM, right 3 rnwy 33, marker.

● **Rome, Ga.** (Russell Fld) : 348°; 11.5 mi, Int of txwy 200′ S of Term Bldg.

St. Paul, Minn., (Downtown Arpt) : 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

St. Petersburg-Clearwater Intl, Fla: 268°; circle lctd N side of W end of ramp, 500′ SE of Saint Aircraft Bldg.

● **St. Thomas, V.I.** (Harry S. Truman) : 118°; 3.5 mi, on center point of arpt txwy.

Salinas, Calif. (Mun) : 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County) : 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis) : 236°; 2.2 mi, E edge of ramp front of twr.

San Antonio, Tex. (Stinson Mun) : Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

● **San Juan, Puerto Rico** (Intl) : 261°; 0.9 mi, lctd on txwy NE Trml Bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santa Rosa, Calif. (Sonoma Co. Arpt) : 083.5°; SW corner main ramp.

Sante Fe, N. Mex. (New Muni) : 334°; 4.7 NM, at Junction main int txwy and ramp.

● **Sarasota, Fla.** (Bradenton) : 172°; 0.4 mi, on ramp 800′ N Trml Bldg.

Scottsbluff, Nebr. (Muni) : 240°; 5.1 NM, NE edge ramp opposite Trml Bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l) : 028°; 30′ near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

● **South Bend, Ind.** (St. Joseph Co.) : 178°; 3.8 NM, center of western N/S txwy 200′ N of N edge of Trml ramp.

● **Spartanburg, S.C.** (Downtown Meml) : 192°; 7.3 NM, at compass rose on ramp.

● **Springfield, Ill.** (Capital) : 214°; 3.8 NM, in front of twr at int NW/SE and NE/SW taxi strips.

Springfield Mo.: 191°; 6.8 NM, at bend in N/S txwy 400′ S of N end of taxi strip.

Stillwater, Okla. (Searcy Arpt) : 173°; 4 mi, NW ramp and taxi strip.

Stinson, Tex. (Mun Arpt) : Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans. (Muni): 213°; 5.4 NM, N/S txwy W of tetrahedron.

Tri-City, Tenn.: HMV 282°; 13.2 NM on ramp S of Trml Bldg.

Truth or Consequences, N. Mex.: 157°; 2.8 mi, on NE/SW txwy 200′ NW of wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; .5 mi; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; .7 mi, over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

● **Tuscaloosa, Ala.** (Van de Graaff): 241°; 4.3 mi, on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

● **Vero Beach, Fla.:** 112°; 4 mi, on txwy adj to rnwy 11–29, adj to wind sock.

Vichy, Mo. (Rolla Natl Arpt): 241°; 2.9 NM, on txwy W of NE/SW rnwy.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex. (Muni): 132°; 3.5 mi, int of ramp and N taxi strip.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 051°; 1.7 mi, taxi strip at parking ramp adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Tucumcari, N. Mex: Lctn #1—255°; .5 mi; over square metal plate lctd on hangar ramp paved area. Lctn #2—226°; .7 mi. over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Wichita Falls, Tex. (Muni): 096°; 5.2 mi, NE edge of muni ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; vcnty of base operator ramp.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300′ from centerline rnwy 14–32.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1966

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	X	
Balboa	FAA	X	
Cold Bay	FAA	X	
Dallas	BNF	X	
Guam	FAA	X	
Honolulu	ARINC	X	X
Miami	ARINC	X	X
New York	ARINC	X	X
New Orleans	ARINC	X	X
Okinawa	ARINC	X	X
Pago Pago	FAA	X	
Point Barrow	FAA	X	
San Francisco	ARINC	X	X
Shemya	FAA	X	
San Juan	ARINC	X	X
Seattle	ARINC	X	X
Wake Island	FAA	X	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fiields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

TRAFFIC INFORMATION ON MERGING RADAR TARGETS

Effective July 31, 1966, ATC facilities will implement a traffic information service on merging radar targets to radar identified scheduled air carrier aircraft. Traffic information will be issued to a radar identified scheduled air carrier aircraft when his radar target is likely to merge with another observed radar target, unless the observed traffic is known to be separated by more than the minimum vertical separation for his altitude. This service will not be provided to aircraft while they are holding in a holding pattern. Pilots should expect other traffic to be in a holding pattern with approved separation. Such traffic information will be issued routinely unless the controller is engaged in the provision of separation to the extent that it is not possible to provide this traffic information.

A vector to avoid merging targets will be provided only at the pilot's request and then *only* on a workload permitting basis. The vector, when provided, will not necessarily provide approved radar separation (three or five miles). The controller will attempt to provide vectors only to the extent that the targets do not touch.

Standard phraseologies for issuing traffic information and vectors will be used.

July 1966

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows: Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-36S, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-36S, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

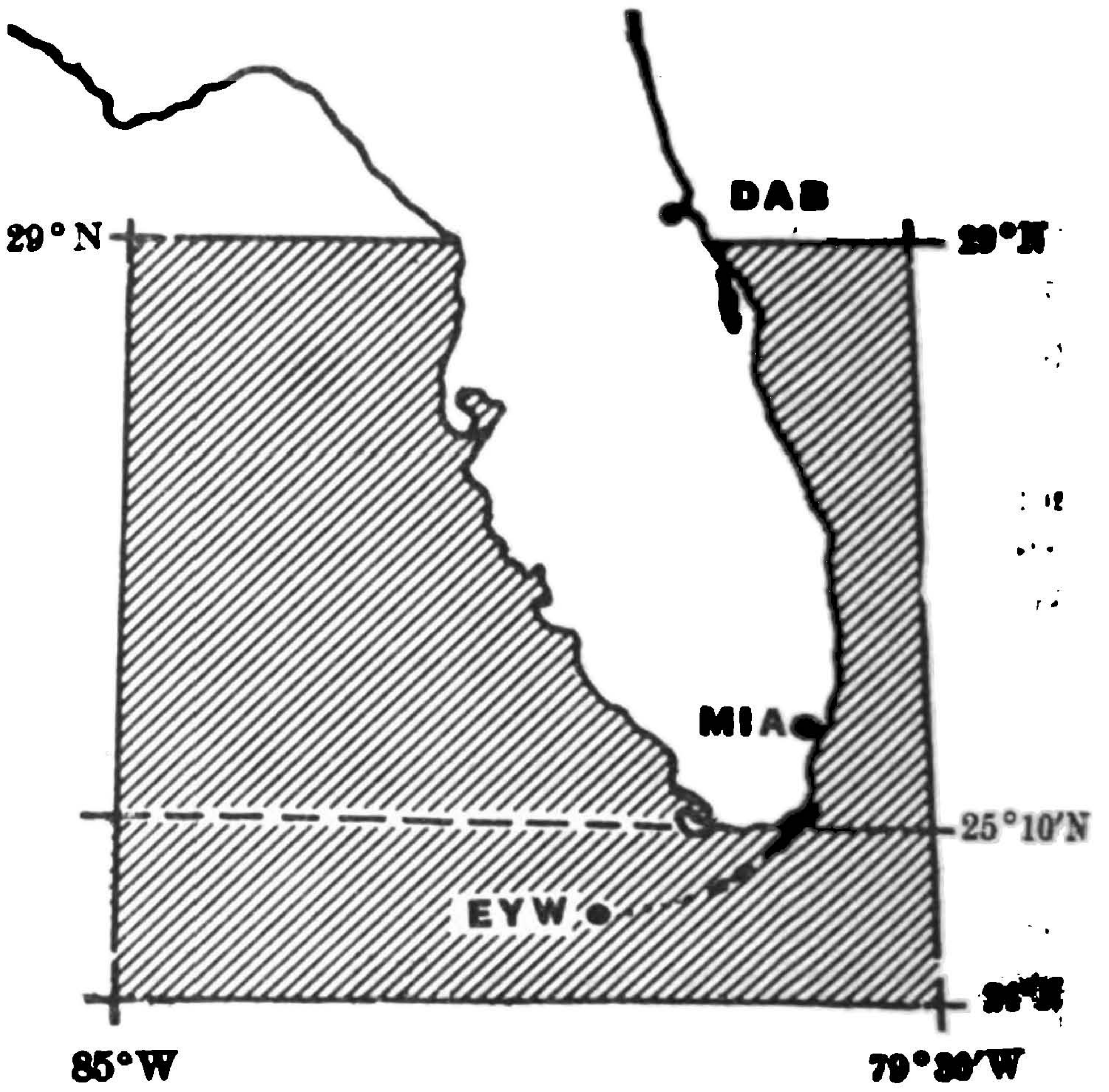
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

PART-TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

St. Petersburg, Albert Whitted Arpt: 0600–2200 local time daily.

Sarasota: 0600–2200 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

Davenport: Efctv Oct. 13, 1966. 0700–1900 local time daily.

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

● **Benton Harbor:** 0730–2300 local time daily.

● **Escanaba:** 0730–2230 local time daily.

● **Iron Mountain:** 0800–2100 local time daily.

● **Ironwood:** 0630–2300 local time daily.

● **Menominee:** 0700–2100 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainerd: 0730–2030 local time daily.

● **Fairmont:** 0700–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

● **Winona:** 0900–2030 local time Mon thru Fri; 0900–1630 local time Sat and Sun.

● **Worthington:** 0700–1845 local time daily.

MISSOURI

● **Chesterfield, Spirit of St. Louis Arpt:** Efctv Dec 8, 1966: 0700–2200 local time daily.

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

Kearney: 0700–1900 local time daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730–2100 local time daily.

NORTH DAKOTA

● **Devils Lake:** 0600–2330 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

Hillsboro: 0600–2200 local time daily.

SOUTH CAROLINA

● **Crescent Beach, Myrtle Beach Arpt:** 0800–2130 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Killeen, Robert Gray AAF: 0730–1630 local time Mon thru Fri and 0730–1130 local time Sat.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630- 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

Bremerton: 0900–1700 local time daily. Mon thru Fri.

Moses Lake, Grant Co. Arpt.: 0700–2300 local time daily.

Pullman: 0700–2400 local time daily.

Tacoma Industrial Arpt: 0600–2100 local time Mon thru Fri and 1300–2100 local time Sat and Sun.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

● **Janesville:** 0700–2300 local time Mon thru Fri; 0700–2200 local time Sat and Sun.

● **Manitowoc:** 0800–2130 local time daily.

● **Rhinelander:** 0700–2230 local time daily.

● **Stevens Point:** 0630–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

g. To clear a departing aircraft via the route filed, the controller will state "CLEARED AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information. The phrase "CLEARED AS FILED" is only intended as a clearance to proceed via the route filed in the flight plan and does not constitute authorization to maintain an altitude other than that specifically stated by ATC.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

DME at ILS Locations

The FAA has installed Distance Measuring Equipment (DME) at selected ILS glide slope locations for the purpose of determining the operational advantages of DME when used in conjunction with ILS. DME capabilities have been incorporated in the ILS instrument approach procedure at the following locations:

Airport	*Runway*
John F. Kennedy International, New York	04R
Albany County, New York	19
Minneapolis—St. Paul International, Minnesota	11R
Dulles International, Washington, D.C.	01R
St. Joseph County, South Bend, Indiana	09, 27
Cleveland—Hopkins International, Ohio	05R, 23L
Reno, Nevada	34, 16
Lindbergh Field, San Diego, California	09, 27

An operational evaluation will be conducted by the FAA at these locations commencing during the month of July, 1966. Questionnaires will be made available to pilot personnel to obtain user comments during the evaluation period. Pilots conducting operations into these airports with DME equipped aircraft are encouraged to utilize the DME capability of the ILS facilities and to report their findings and recommendations by submitting completed questionnaires to the FAA.

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO—O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

The part-time manned facilities, which transmit and receive on 123.6 and 121.5 (emergency), the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0700–2100.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Concord, New Hampshire)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

October 1965

EVALUATION OF AIRPORT TRAFFIC LIGHT SYSTEM WASHINGTON NATIONAL AIRPORT

The Airport Traffic Light System with 14 lights/signs has been installed at Washington National Airport. Beginning September 8, 1966, for a 45 day period this system will be evaluated to determine the feasibility of utilizing a Light System in the control of airport ground traffic. It will be used strictly as a back up for the verbal clearance issued by Ground Control or the Local Controller.

Light/sign signals have been installed at the end of Runway/s 3/36/33, at the entrance of these runways, and at most of the taxiway intersections affecting these runways in a North operation. The light/sign signal is strictly a backup to one of the following appropriate verbal clearances: (1) Cleared to cross (runway); (2) Taxi into position and hold; and (3) Cleared for take-off. These lights operate on the same principle as a traffic light; green light to go, and red light to hold. The operating concept provides that the traffic lights/signs will normally be showing red (HOLD). This will ensure that the active runways are always protected by a red light. When the Controller wishes to clear an aircraft to cross a runway or to clear an aircraft for take-off, in addition to a verbal clearance, the pilot will receive a green light (GO). The use of a green take-off light will automatically change all crossing lights on the active runway to red (HOLD). A safety lock out feature prohibits the use of a green crossing light until the take-off light has returned to red.

THERE WILL BE NO CLEARANCES ISSUED SOLELY BY THE LIGHT SYSTEM. THIS SYSTEM IS STRICTLY A BACKUP TO, AND ONLY CONFIRMS CONTROL INSTRUCTIONS DELIVERED BY RADIO COMMUNICATIONS. IF A PILOT RECEIVES A LIGHT SIGNAL WHICH CONFLICTS WITH THE VERBAL CLEARANCE, VERIFY IT WITH THE CONTROLLER.

The lights are rectangular in shape, approximately 47″ by 15″. When either cleared for take-off or cleared to cross a runway, the pilot will see the word "GO" in large white block letters on a green background. If not cleared he will see the word "HOLD" in white on a red background. When the system is inoperative a blank side of the light will be presented in black. These lights are located to the pilots left at points of entry to runways and ramp areas and can readily be seen from the cockpit.

A pilot questionnaire regarding the Light System will be made available. Your comments and opinions regarding the advantages or disadvantages of the Airport Traffc Light System are solicited.

1. This is an evaluation project only. It will be conducted in a North operation only.
2. No procedural or regularly changes are introduced. Tower will terminate the evaluation any time the normal flow of traffic is directly affected.
3. Lights will be operated only as a visual confirmation to verbal control clearance.
4. Lights do not pertain to landing aircraft or aircraft in the air.
5. No clearance will be issued solely by light signals.
6. For the purpose of the evaluation check a conflicting light against the verbal clearance.

● REROUTED AIRCRAFT AND ALTITUDE RESTRICTIONS

The purpose of this Notice is to re-emphasize expected pilot action when an aircraft is rerouted off a previously assigned route that included crossing altitude restrictions associated with fixes/radials.

The guiding principle to remember is that the *last ATC clearance* has precedence over related items of the previous ATC clearance. A clearance which amends *only* altitude items does not change the route items in the previous clearance. Similarly, a clearance which amends *only* the route items (whether based on vectors or ground NAVAIDS), does not change the altitude items, however, if the amended route no longer requires a flight to cross a specified fix/radial for which an associated crossing altitude was previously issued, the crossing altitude cannot apply and the previous crossing altitudes for such fixes/radials are no longer in effect.

An altitude restriction associated with a specific fix is only applicable at that *specific point*. An altitude restriction associated with a radial is applicable *anywhere the aircraft flight track crosses that radial.*

Pilots should request route/altitude verification or clarification from ATC if any portion of clearance or amendment is not clearly understood.

EXAMPLES:

(1) Flight receives departure clearance to destination airport to maintain an altitude of 16,000 feet and proceed via *fixes* (SID, if appropriate) BRAVO, XRAY, and TANGO with crossing altitudes of 3,000, 7,000, and 10,000 feet respectively. After take-off, the flight is rerouted via a vector (or a nonradar direct route) which by-passes *fixes* BRAVO, XRAY, and TANGO. Since the flight is no longer cleared over *fixes* BRAVO, XRAY, and TANGO and will not pass over them, altitude crossing restrictions at these *fixes* are no longer applicable. The flight is expected to effect an unrestricted climb to 16,000 feet, unless otherwise advised by air traffic control.

(2) Flight receives departure clearance to destination airport to maintain Flight Level 180, cross DELTA VOR 300 *radial* at 6,000 feet, *fix* FOXTROT at 8,000 feet and *fix* GOLF at Flight Level 180. After take-off prior to crossing DELTA VOR 300 radial, the flight is rerouted direct to *fix* GOLF (vector or nonradar). The flight will now intersect the DELTA VOR 300 *radial* at a different point and will by-pass fix FOXTROT. The flight is still required to cross the DELTA VOR 300 radial at 6,000 feet and *fix* GOLF at Flight Level 180. The crossing altitude restriction for *fix* FOXTROT is no longer applicable since the flight does not pass over it.

(3) Flight maintaining Flight Level 310 is proceeding on a clearance to *fix* DELTA, to cross *fix* ALFA at Flight Level 230, *fix* BRAVO at 14,000 feet, *fix* CHARLIE at 7,000 feet, *fix* DELTA at 4,000 feet and then maintain 4,000 feet. The flight is rerouted (vector or nonradar) to proceed from over *fix* ALFA direct to *fix* DELTA which by-passes *fixes* BRAVO and CHARLIE. The crossing restrictions at BRAVO and CHARLIE are no longer applicable. The flight is still required to cross *fix* ALFA at Flight Level 230, and to descend thereafter to 4,000 feet and cross *fix* DELTA at and maintain 4,000 feet.

(4) Flight maintaining an altitude of 7,000 feet receives a clearance to climb to and maintain Flight Level 230, cross ALFA VOR 250 *radial* at or above 9,000 feet and cross BRAVO VOR 300 radial at or above 10,000 feet. The flight is rerouted (vector or nonradar) prior to crossing either radial but will still cross these *radials;* therefore, the flight is still required to comply with the altitude restrictions associated with the radials.

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for the aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

May 1966

●LOCATION IDENTIFIERS

Location identifiers are assigned as follows:

ELZ	Wellsville, N.Y. Muni Arpt.
05K	Brookfield, Mo., Meml Arpt.
TRX	Trenton, Mo., Meml Arpt. and Rbn.
O6K	Lewistown, Mo. Arpt.

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis.*
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

1. **Airspace North of V18 airway from the surface to 3000 feet MSL.**
2. **Airspace South of V18 airway from the surface to 2000 feet MSL.**
3. **All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   a. Airports within the Atlanta TRSA:
      (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
      (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   b. Airports underlying the Atlanta TRSA:
      (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
      (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   c. Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
   d. Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V-18 should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V-18 should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.

   In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	" "	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conyers	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

   NOTE.—**Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.**

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

GEORGIA

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

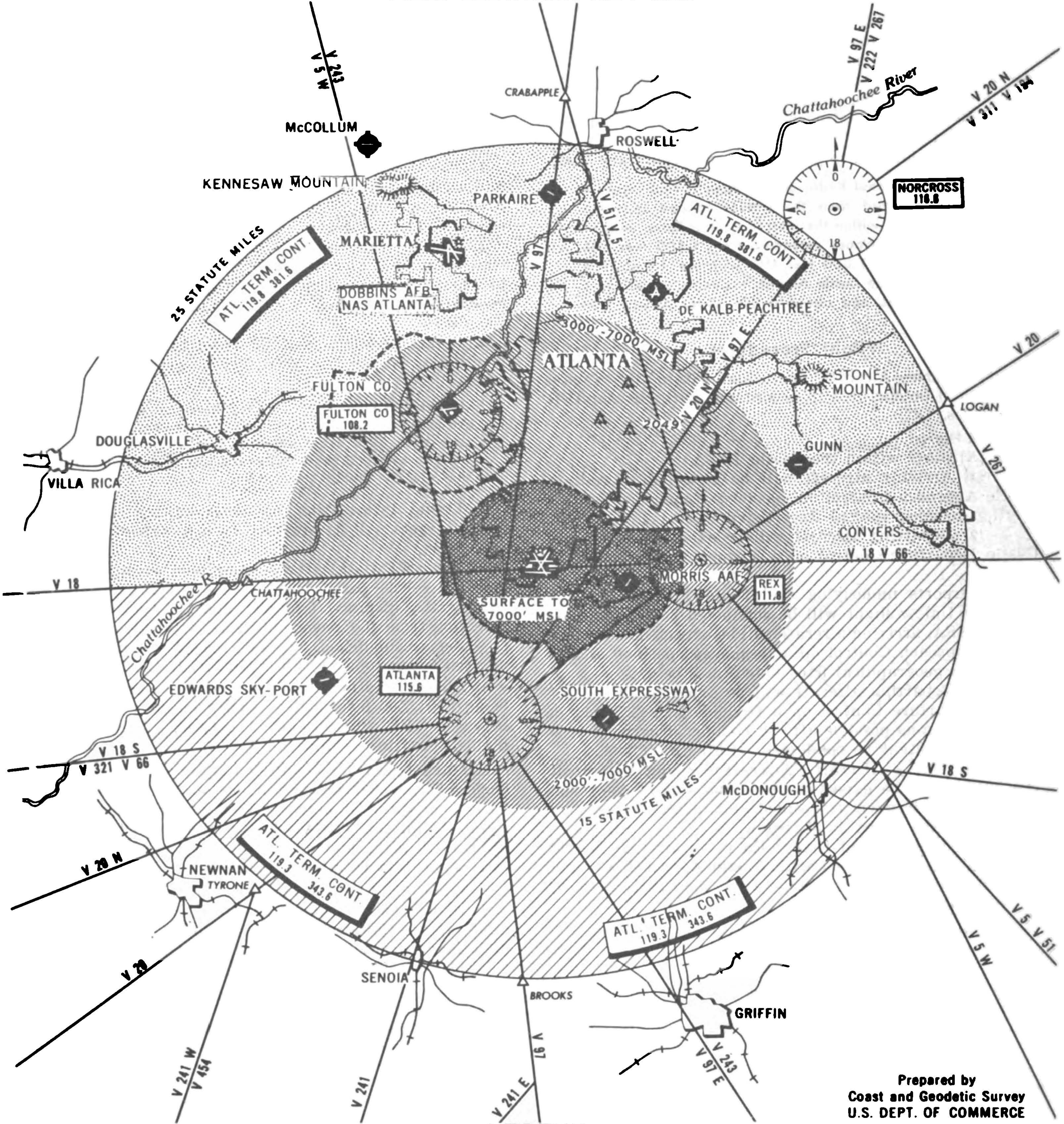
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024′ MSL


V 243
V 5 W
McCOLLUM
CRABAPPLE
ROSWELL
V 97 E
V 222 V 267
Chattahoochee River
V 20 N
V 311 V 194
KENNESAW MOUNTAIN
PARKAIRE
NORCROSS
116.8
ATL. TERM. CONT.
119.8 381.6
25 STATUTE MILES
MARIETTA
V 97
V 51 V 5
DOBBINS AFB
NAS ATLANTA
DE KALB-PEACHTREE
3000′-7000′ MSL
ATLANTA
V 97 E
V 20 N
2049
STONE MOUNTAIN
V 20
LOGAN
FULTON CO
FULTON CO
108.2
DOUGLASVILLE
VILLA RICA
GUNN
V 267
CONYERS
V 18 V 66
V 18
CHATTAHOOCHEE
Chattahoochee R.
MORRIS AAF
REX
111.8
SURFACE TO
7000′ MSL
EDWARDS SKY-PORT
ATLANTA
115.6
SOUTH EXPRESSWAY
V 18 S
V 321 V 66
2000′-7000′ MSL
15 STATUTE MILES
McDONOUGH
V 18 S
V 20 N
NEWNAN
TYRONE
ATL. TERM. CONT.
119.3 343.6
ATL. TERM. CONT.
119.3 343.6
V 5 V 51
V 5 W
V 20
SENOIA
BROOKS
GRIFFIN
V 241 W
V 454
V 241
V 97
V 241 E
V 243
V 97 E

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA	▨ 2000′-7000′	■ SURFACE TO 7000′	▩ 3000′-7000′
CONTACT OR CALL-UP AREAS	North of V 18	░	
	South of V 18	▨	

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West-Northwest
Crows Landing (NAS)	West
City of Gustine	West-Southwest
City of Los Banos	South–Southwest
City of Dos Palos	South
City of Chowchilla	East–Southeast
City of Madera	East–Southeast
City of Mariposa	East–Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

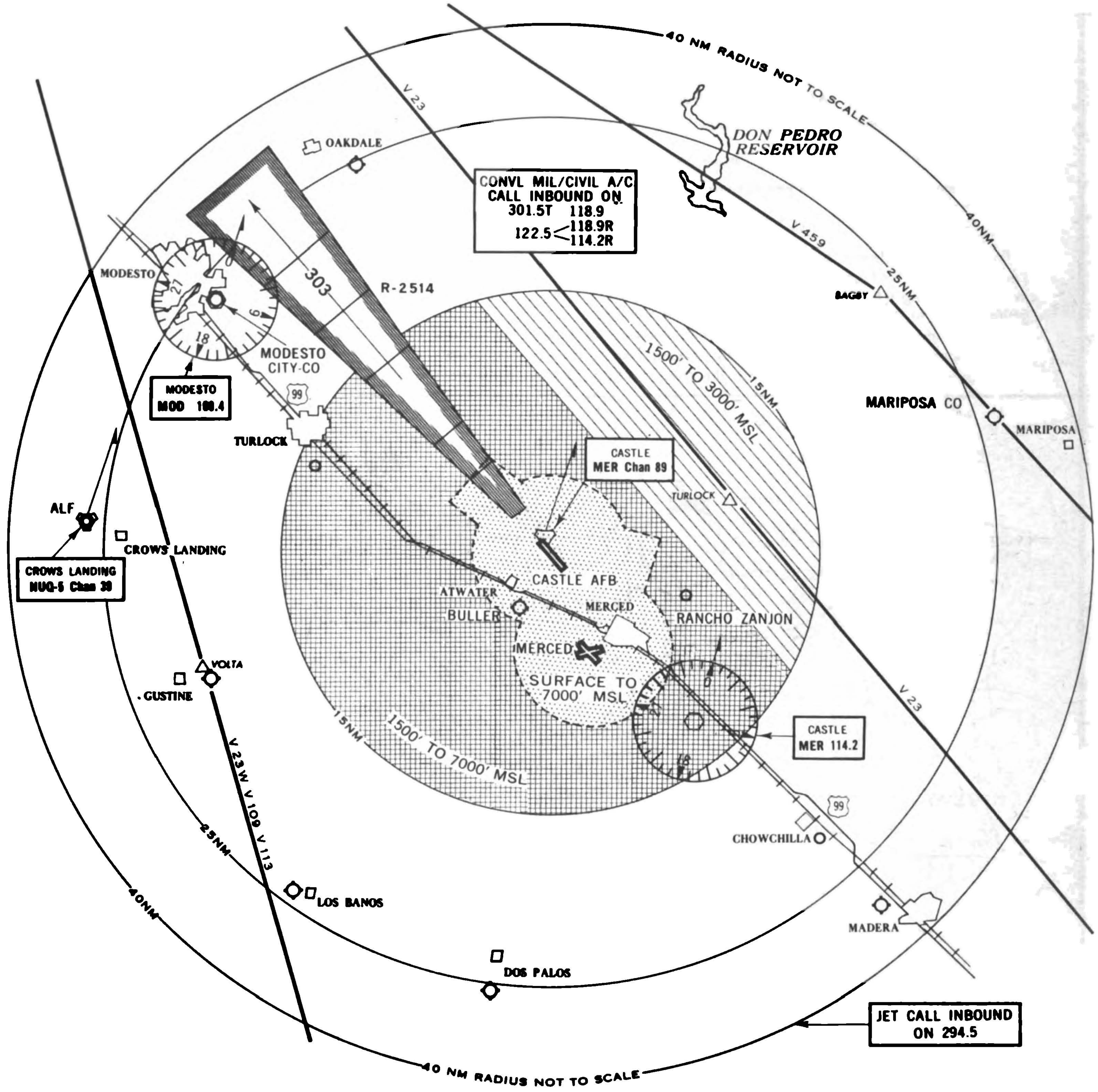
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188' MSL


40 NM RADIUS NOT TO SCALE
V 23
DON PEDRO RESERVOIR
OAKDALE
CONVL MIL/CIVIL A/C
CALL INBOUND ON
301.5T 118.9
122.5<118.9R
114.2R
V 459
40NM
25NM
BAGBY
MODESTO
27
9
18
303
R-2514
MODESTO CITY-CO
99
MODESTO
MOD 109.4
TURLOCK
1500' TO 3000' MSL
15NM
MARIPOSA CO
MARIPOSA
CASTLE
MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING
NUQ-5 Chan 39
CASTLE AFB
ATWATER
BULLER
MERCED
RANCHO ZANJON
MERCED
SURFACE TO 7000' MSL
VOLTA
GUSTINE
15NM
1500' TO 7000' MSL
CASTLE
MER 114.2
V 23
V 23W V 109 V 113
25NM
99
CHOWCHILLA
40NM
LOS BANOS
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA ▒ SURFACE TO 7000' ▨ 1500' TO 3000' ▦ 1500' TO 7000'

CONTACT OR CALL-UP AREAS CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

16 SEP 1965

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia Rivers. From takeoff climb to 1500′, reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000′ altitude. Stay over the River until passing through 3000′ altitude unless otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1-AND 2-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 1500′ prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From takeoff climb to 2000′ prior to turning oncourse unless instructed to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.

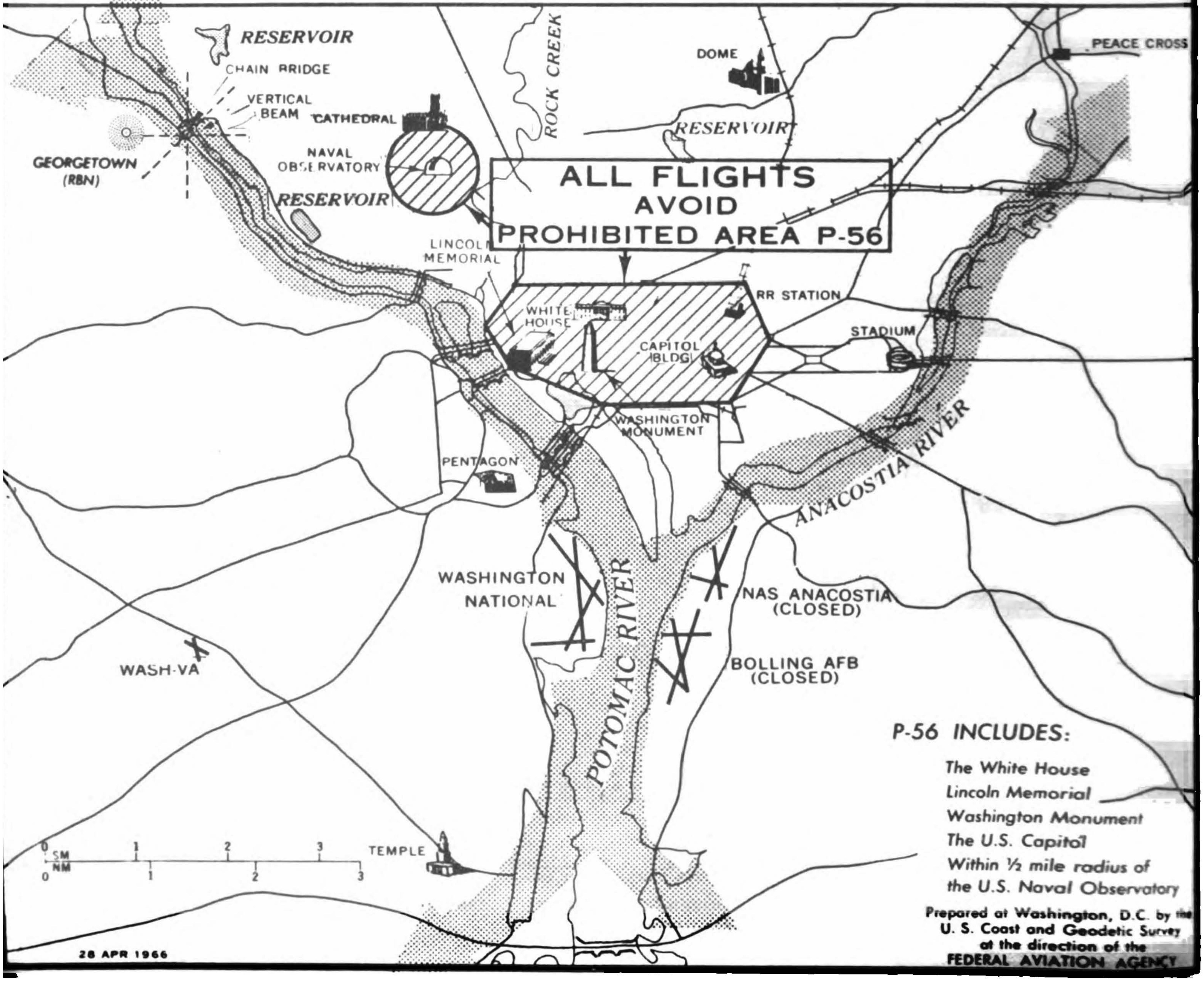
Remain at 2500′ or higher while en route to final.

When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.

A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.

On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.

If VFR go around is required, climb over the River to 2500′, enter traffic pattern for subsequent approach.


RESERVOIR
CHAIN BRIDGE
VERTICAL BEAM
CATHEDRAL
GEORGETOWN (RBN)
NAVAL OBSERVATORY
RESERVOIR
ROCK CREEK
DOME
RESERVOIR
PEACE CROSS
ALL FLIGHTS AVOID PROHIBITED AREA P-56
LINCOLN MEMORIAL
WHITE HOUSE
CAPITOL BLDG
RR STATION
STADIUM
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
POTOMAC RIVER
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
WASH-VA
TEMPLE
SM 0 1 2 3
NM 0 1 2 3
28 APR 1966

P-56 INCLUDES:

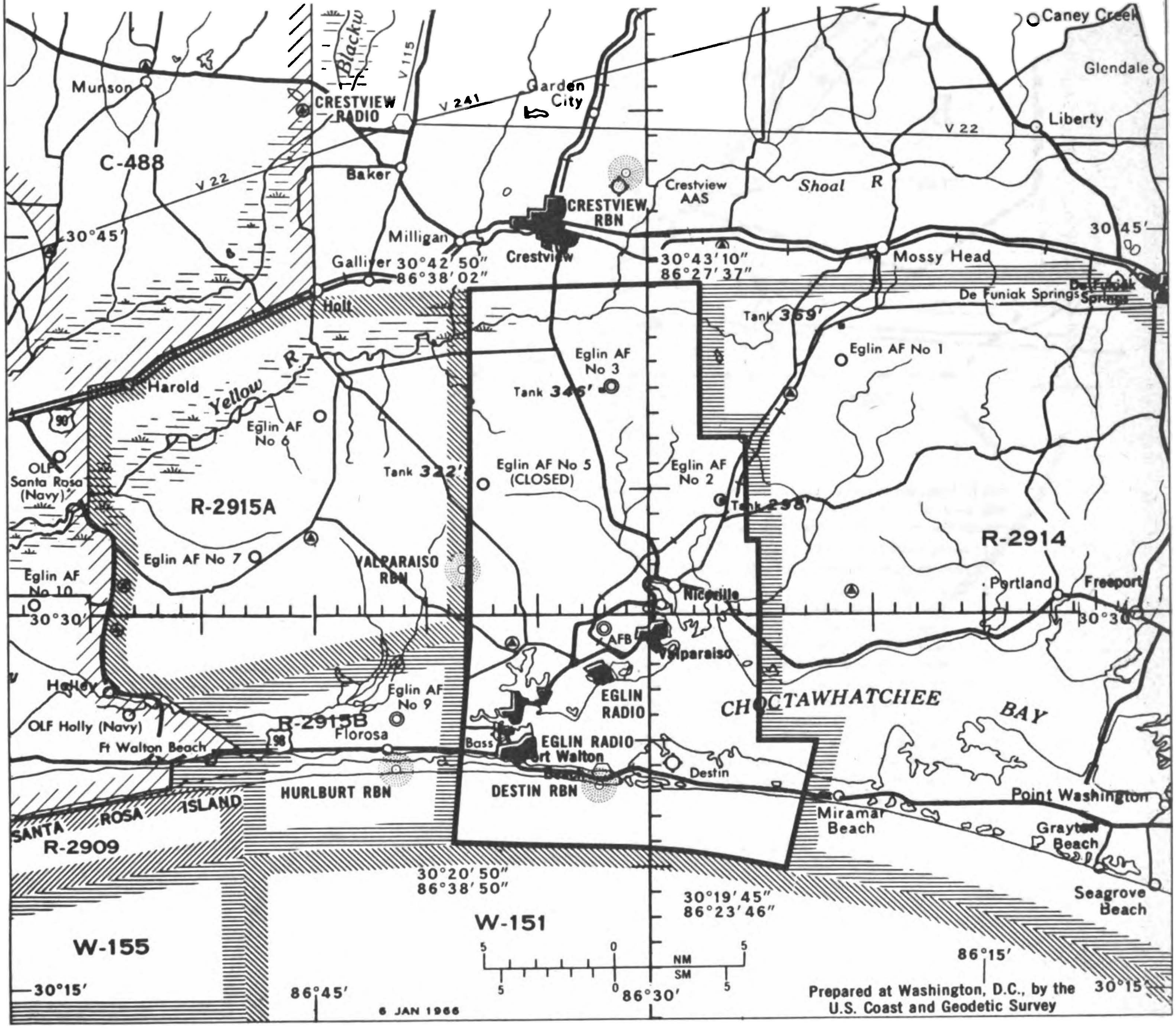
The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of the U.S. Naval Observatory

Prepared at Washington, D.C. by the U. S. Coast and Geodetic Survey at the direction of the FEDERAL AVIATION AGENCY

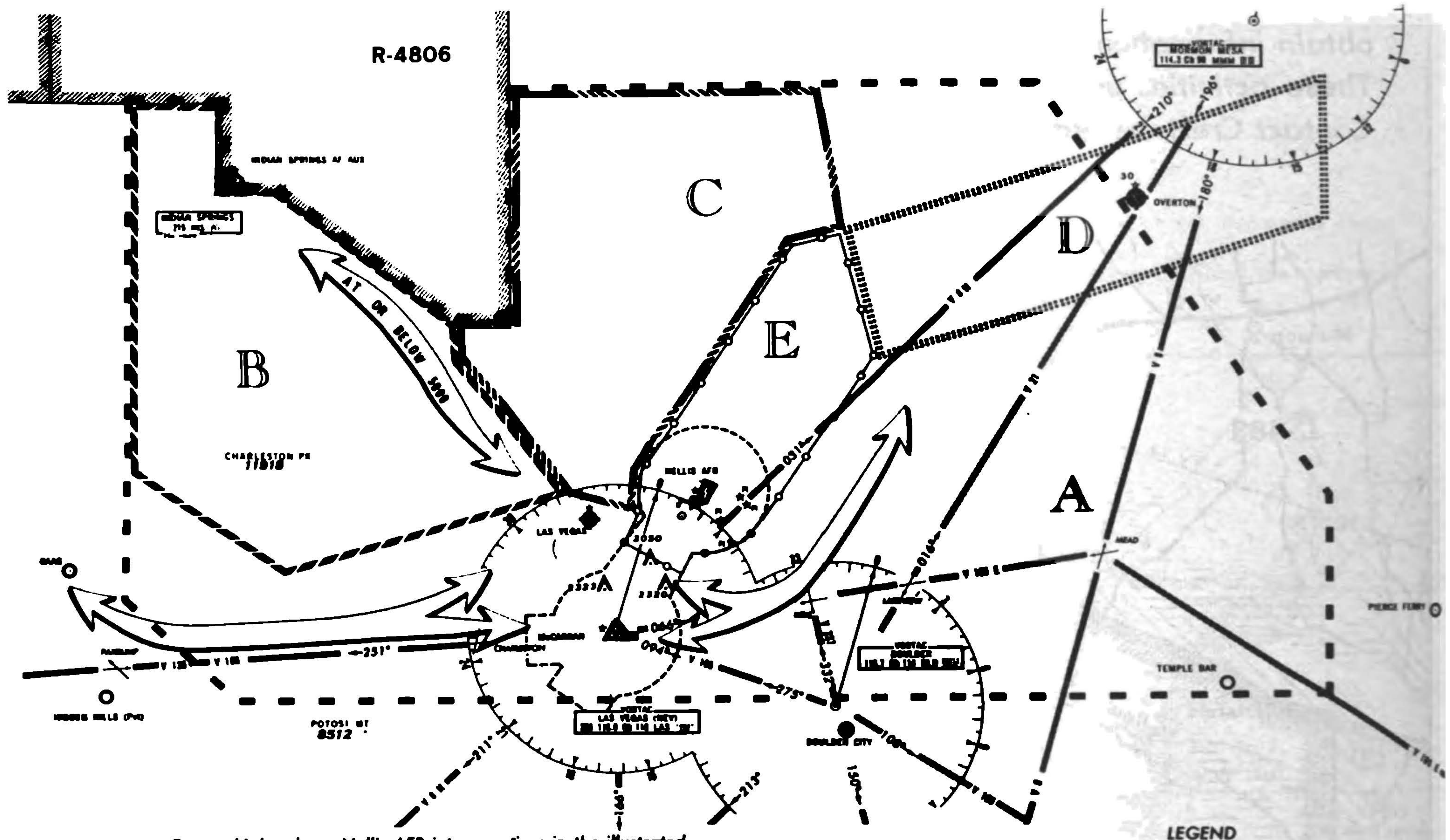
VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

A special rule in effect sunrise to sunset, Monday through Saturday requires pilots to obtain information about special activities operating between R-2914 and R-2915A and B. These activities use varying altitudes but altitudes for VFR flight are always available. Contact Crestview Radio (122.1,123.6,126.7) or Eglin RAPCON (119.3) for information.


86°45'
86°15'
Munson
CRESTVIEW RADIO
V 115
Blackw
V 241
Garden City
C-488
V 22
Baker
Crestview AAS
Shoal R
CRESTVIEW RBN
Caney Creek
Glendale
Liberty
V 22
30°45'
Milligan
Galliver 30°42'50" 86°38'02"
Crestview
30°43'10" 86°27'37"
Mossy Head
De Funiak Springs
DeFuniak Springs
Holt
Tank 369'
Eglin AF No 1
Eglin AF No 3
Tank 346'
Harold
Yellow R
90
Eglin AF No 6
OLF Santa Rosa (Navy)
Tank 322'
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 258'
R-2915A
R-2914
Eglin AF No 7
VALPARAISO RBN
Eglin AF No 10
30°30'
Niceville
Portland
Freeport
30°30'
AFB
Valparaiso
Holley
Eglin AF No 9
EGLIN RADIO
CHOCTAWHATCHEE BAY
OLF Holly (Navy)
R-2915B
Florosa
98
Ft Walton Beach
Bass
EGLIN RADIO
Fort Walton Beach
Destin
SANTA ROSA ISLAND
HURLBURT RBN
DESTIN RBN
Miramar Beach
Point Washington
Grayton Beach
R-2909
30°20'50" 86°38'50"
30°19'45" 86°23'46"
Seagrove Beach
W-151
W-155
5 0 5 NM
5 0 5 SM
86°15'
30°15'
86°45'
86°30'
30°15'
6 JAN 1966
Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA


R-4806
C
D
E
B
A
INDIAN SPRINGS AF AUX
CHARLESTON PK 11918
AT OR BELOW 5500
MORMON MESA
OVERTON
NELLIS AFB
LAS VEGAS
McCARRAN
MEAD
PIERCE FERRY
TEMPLE BAR
BOULDER CITY
POTOSI MT 8512
HIDDEN HILLS (Pvt)
-251°
-275°
-211°
-160°
150°
210°
180°
V 135

Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. a. *Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   - *Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Mormon Mesa Vortac for flight information.*

   b. *Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarron Field or Las Vegas Air Terminal.*

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas.
Altitudes are Mean Sea Level

A ▬ ▬ ▬ FL 230
B ▰▰▰▰▰▰ 5,500 to FL 230
C ▬▬▬⧵⧵⧵▬▬ Surface to FL 230
D ▒▒▒▒▒▒ 8,000 to 9,000
E ○——○——○ Surface to 9,000 inclv.

Recommended itinerant
VFR routes ⇔

Base And Airspace Compiled From
56th Edition Of Mt Whitney And 61st Edition
Of Los Angeles Sectional Aeronautical Charts

10 0 NAUTICAL 10 MILES 20 30 40 50
10 0 STATUTE 10 MILES 20 30 40 50

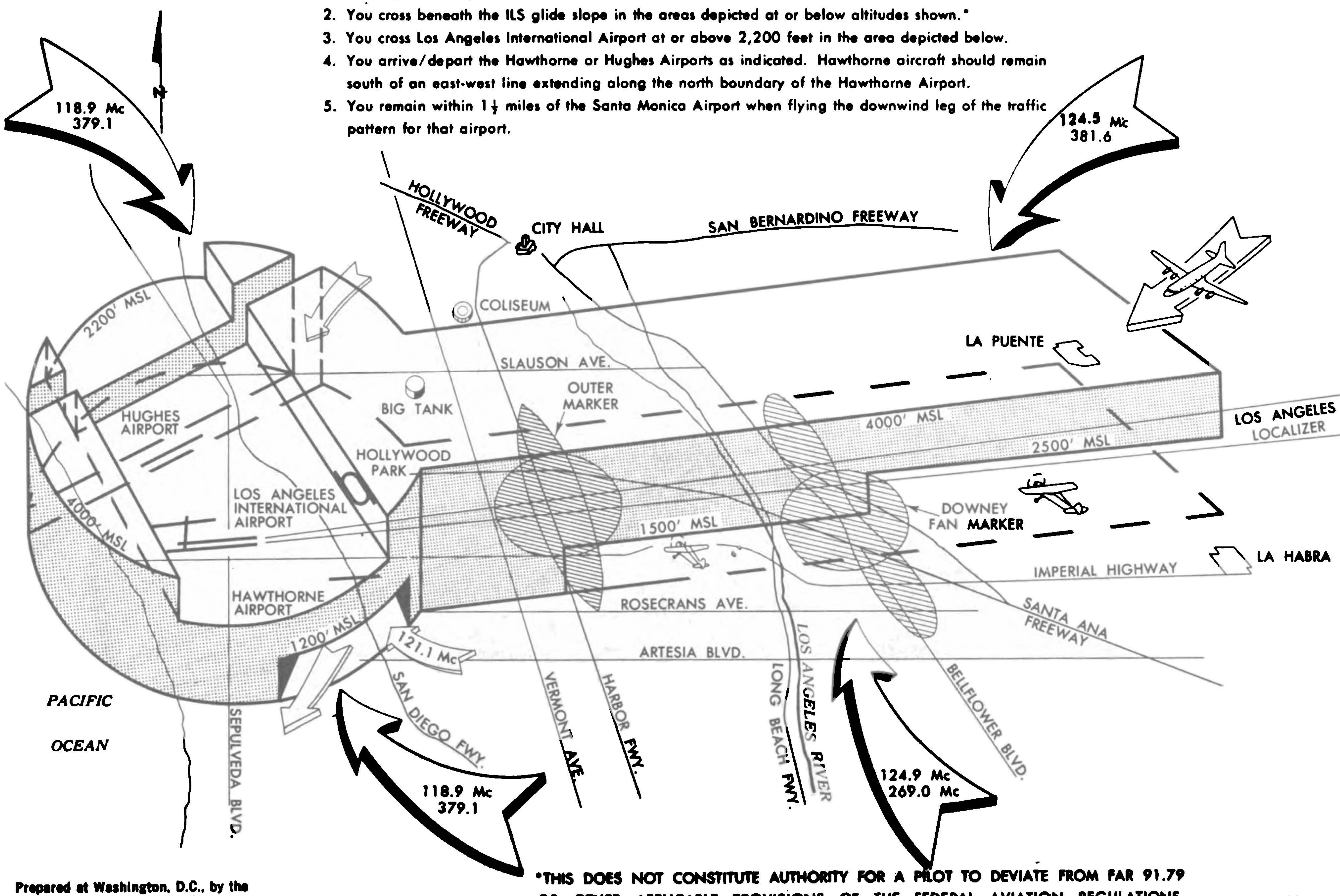
Prepared by
Coast and Geodetic Survey
U.S. DEPT OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.


118.9 Mc
379.1
N
124.5 Mc
381.6
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
COLISEUM
LA PUENTE
2200' MSL
SLAUSON AVE.
OUTER MARKER
BIG TANK
HUGHES AIRPORT
HOLLYWOOD PARK
4000' MSL
2500' MSL
LOS ANGELES LOCALIZER
LOS ANGELES INTERNATIONAL AIRPORT
1500' MSL
DOWNEY FAN MARKER
4000' MSL
LA HABRA
IMPERIAL HIGHWAY
HAWTHORNE AIRPORT
ROSECRANS AVE.
1200' MSL
121.1 Mc
SANTA ANA FREEWAY
ARTESIA BLVD.
PACIFIC
OCEAN
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LONG BEACH FWY.
LOS ANGELES RIVER
BELLFLOWER BLVD.
SEPULVEDA BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

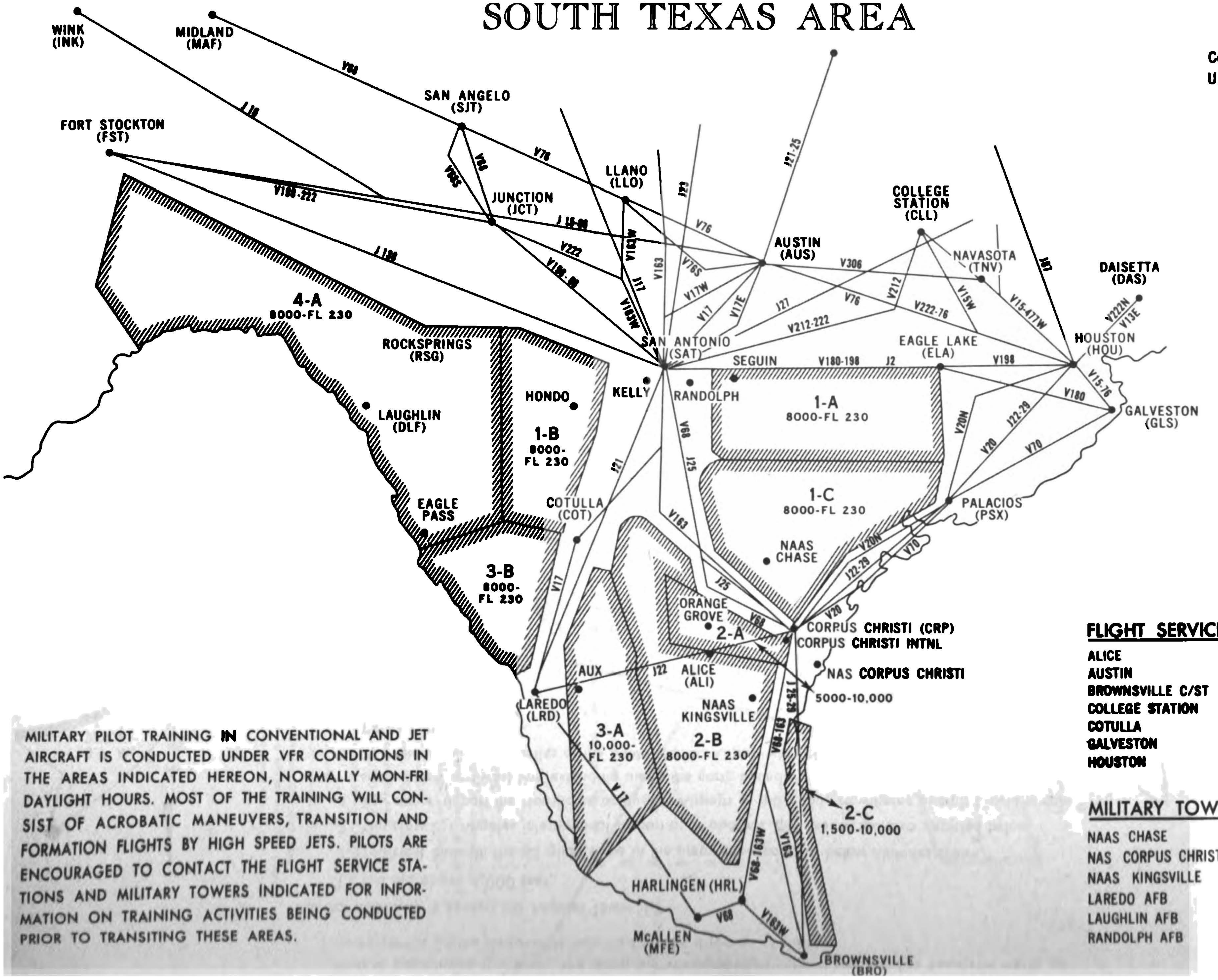
*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

22 JUL 1965

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN
SOUTH TEXAS AREA

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE


WINK (INK)
MIDLAND (MAF)
FORT STOCKTON (FST)
SAN ANGELO (SJT)
V66
J 18
V76
V66S
V66
V166-222
JUNCTION (JCT)
J 18-66
V222
V166-66
J 138
LLANO (LLO)
V163W
J17
V163
V17W
V76S
V76
V17E
V17
J23
J21-25
AUSTIN (AUS)
V306
J27
V76
V212-222
V212
COLLEGE STATION (CLL)
NAVASOTA (TNV)
V15W
V222-76
V15-477W
J87
DAISETTA (DAS)
V222N
V13E
HOUSTON (HOU)
V198
V180
V15-76
GALVESTON (GLS)
4-A
8000-FL 230
ROCKSPRINGS (RSG)
LAUGHLIN (DLF)
EAGLE PASS
SAN ANTONIO (SAT)
KELLY
RANDOLPH
SEGUIN
V180-198
J2
EAGLE LAKE (ELA)
HONDO
1-B
8000-FL 230
1-A
8000-FL 230
V68
J25
V20N
J22-29
V20
V70
COTULLA (COT)
J21
V163
1-C
8000-FL 230
PALACIOS (PSX)
NAAS CHASE
3-B
8000-FL 230
V17
ORANGE GROVE
2-A
J25
V68
J22-29
V20N
V70
V20
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
5000-10,000
AUX
J22
ALICE (ALI)
NAAS KINGSVILLE
LAREDO (LRD)
3-A
10,000-FL 230
2-B
8000-FL 230
J 25-29
V68-163
V17
2-C
1,500-10,000
V68-163W
V163
HARLINGEN (HRL)
V68
V163W
McALLEN (MFE)
BROWNSVILLE (BRO)

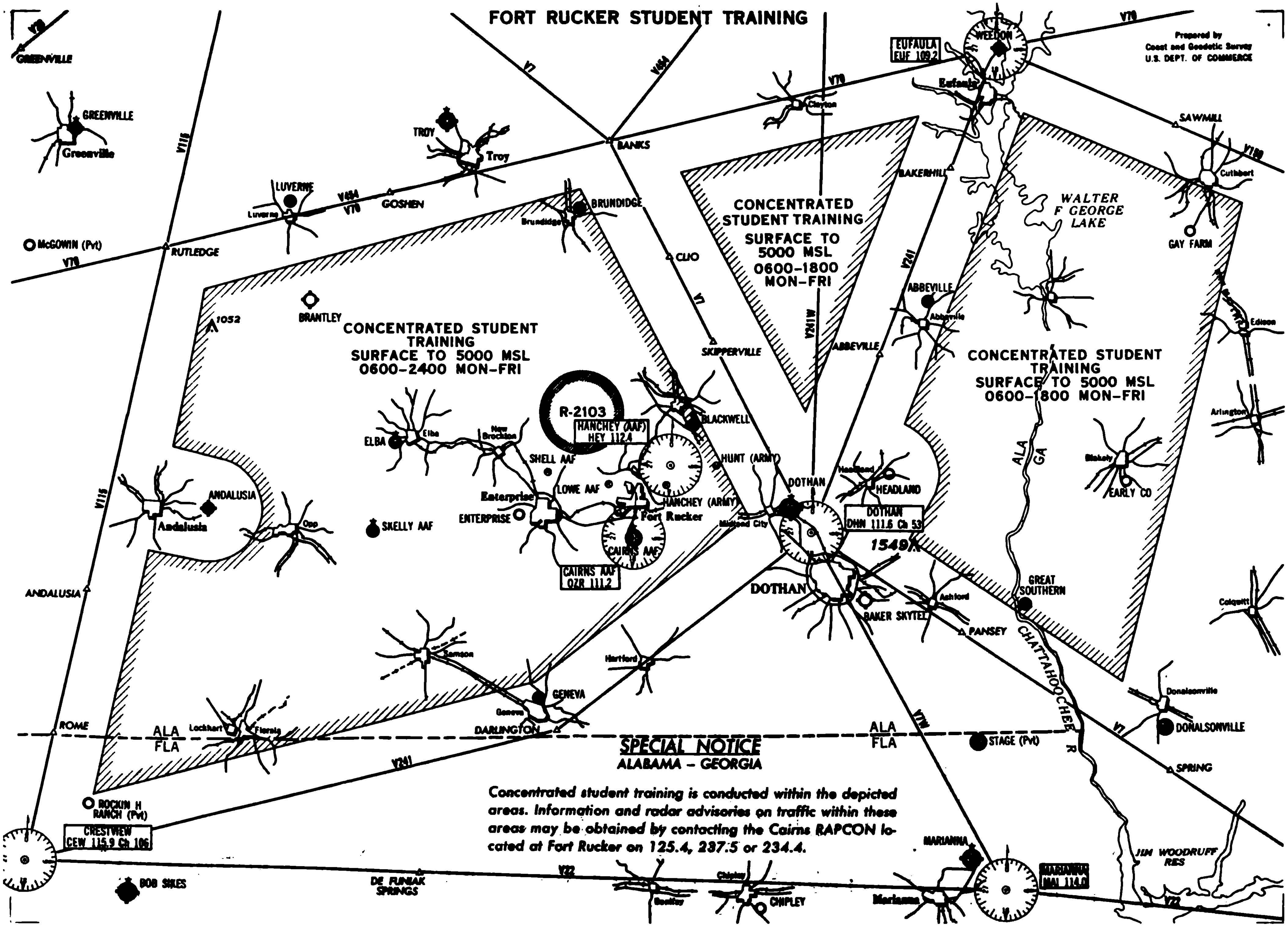
MILITARY PILOT TRAINING IN CONVENTIONAL AND JET AIRCRAFT IS CONDUCTED UNDER VFR CONDITIONS IN THE AREAS INDICATED HEREON, NORMALLY MON-FRI DAYLIGHT HOURS. MOST OF THE TRAINING WILL CONSIST OF ACROBATIC MANEUVERS, TRANSITION AND FORMATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE ENCOURAGED TO CONTACT THE FLIGHT SERVICE STATIONS AND MILITARY TOWERS INDICATED FOR INFORMATION ON TRAINING ACTIVITIES BEING CONDUCTED PRIOR TO TRANSITING THESE AREAS.

FLIGHT SERVICE STATIONS

ALICE
AUSTIN
BROWNSVILLE C/ST
COLLEGE STATION
COTULLA
GALVESTON
HOUSTON
JUNCTION
McALLEN
MIDLAND
PALACIOS
SAN ANGELO C/ST
SAN ANTONIO
WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	119.9 134.1
LAREDO AFB	122.9R 118.6T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2

FORT RUCKER STUDENT TRAINING


Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-2400 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800
MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
R-2103
HANCHEY (AAF) HEY 112.4
CAIRNS AAF OZR 111.2
DOTHAN DHN 111.6 Ch 53
EUFAULA EUF 109.2
CRESTVIEW CEW 115.9 Ch 106
MARIANNA MAI 114.0
WEEDON
WALTER F GEORGE LAKE
JIM WOODRUFF RES
CHATTAHOOCHEE R
ALA
GA
ALA
FLA
V7
V7W
V22
V70
V115
V241
V241W
V454
V159
GREENVILLE
Greenville
TROY
Troy
BANKS
LUVERNE
Luverne
GOSHEN
RUTLEDGE
McGOWIN (Pvt)
BRUNDIDGE
Brundidge
CLIO
SKIPPERVILLE
BRANTLEY
1052
ELBA
Elba
New Brockton
SHELL AAF
LOWE AAF
Enterprise
ENTERPRISE
SKELLY AAF
HANCHEY (ARMY)
Fort Rucker
BLACKWELL
HUNT (ARMY)
DOTHAN
Midland City
HEADLAND
Headland
ABBEVILLE
Abbeville
BAKERHILL
Clayton
EUFAULA
Eufaula
SAWMILL
Cuthbert
GAY FARM
Edison
Arlington
Blakely
EARLY CO
GREAT SOUTHERN
Colquitt
Ashford
BAKER SKYTEL
PANSEY
1549
Donalsonville
DONALSONVILLE
SPRING
STAGE (Pvt)
Hartford
GENEVA
Geneva
Samson
DARLINGTON
Lockhart
Florala
ANDALUSIA
Andalusia
Opp
ROME
ROCKIN H RANCH (Pvt)
BOB SIKES
DE FUNIAK SPRINGS
Bonifay
Chipley
CHIPLEY
MARIANNA
Marianna

SPECIAL NOTICE

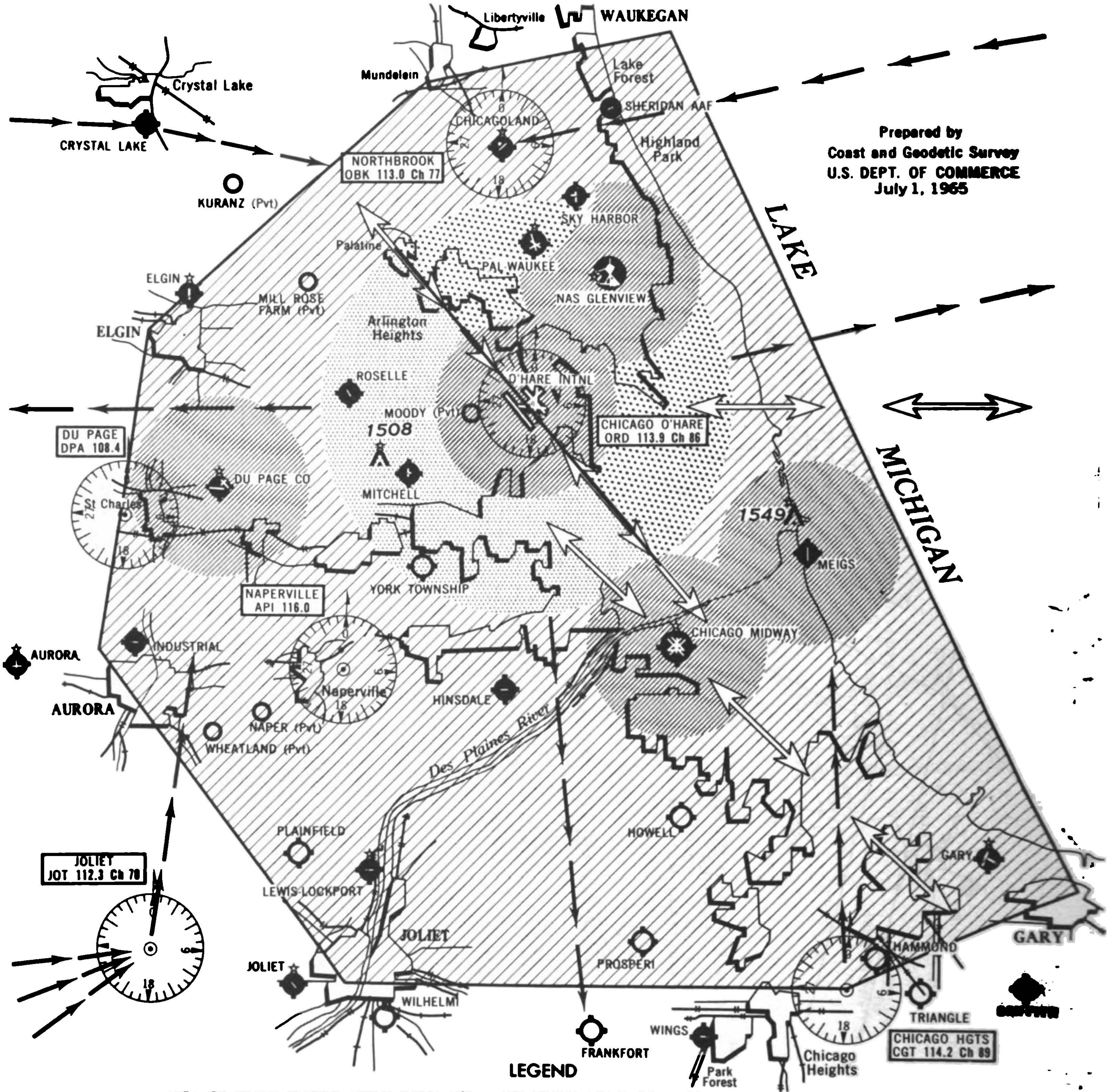
ALABAMA – GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns RAPCON located at Fort Rucker on 125.4, 237.5 or 234.4.

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Mundelein
Lake Forest
SHERIDAN AAF
Crystal Lake
CRYSTAL LAKE
CHICAGOLAND
Highland Park
NORTHBROOK OBK 113.0 Ch 77
KURANZ (Pvt)
SKY HARBOR
Palatine
PAL WAUKEE
NAS GLENVIEW
LAKE
ELGIN
MILL ROSE FARM (Pvt)
Arlington Heights
ROSELLE
O'HARE INTNL
MOODY (Pvt)
1508
CHICAGO O'HARE ORD 113.9 Ch 86
DU PAGE DPA 108.4
DU PAGE CO
MITCHELL
St Charles
MICHIGAN
1549
MEIGS
NAPERVILLE API 116.0
YORK TOWNSHIP
CHICAGO MIDWAY
AURORA
INDUSTRIAL
Naperville
HINSDALE
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
GARY
JOLIET JOT 112.3 Ch 78
LEWIS LOCKPORT
JOLIET
HAMMOND
PROSPERI
WILHELMI
TRIANGLE
FRANKFORT
WINGS
Park Forest
Chicago Heights
CHICAGO HGTS CGT 114.2 Ch 89
Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500′ MSL -- VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500′ MSL -- VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

▒ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L

░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▨ AIRPORT TRAFFIC AREA -- CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC →

THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service Is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport,
Texas and Biggs AFB, Texas

Area Within Which Service Is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 034° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. Inbound on 282° thru 100° use 119.7 mc. **Departure freq:** 120.4 or 381.4 mc when advised by tower.

Norfolk Municipal Airport, Virginia
Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 118.9 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting, will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF.

Washington National Airport
District of Columbia
Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P–56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 118.3 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information service (WTIS) on 118.3 mc or 306.3 mc.

● Dulles International Airport
District of Columbia
Effective date: November 10, 1966

Area in which service is provided: Approximately 20 mile radius of Dulles International Airport excluding Prohibited Areas P–56, Restricted Area R–6608 and the Airport Traffic Areas of Washington National Airport, Andrews AFB and Davison Army Air Field. **Arrival Frequencies:** 126.1 mc or 350.2 mc. Aircraft not equipped for two-way communication on 126.1 mc should transmit on 122.7 mc and listen on 126.1 mc. **Departure Frequencies:** 125.5 mc or 322.5 mc when advised by the tower.

NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective November 1966.

Alabama
Athens, Magnusson Fld 1E
Bayou La Batre, Roy E. Ray 4NE
Foley, Chisenhall 1 S
Hazel Green, Chess King Airpark 4 W
Jackson Muni 2S
Pell City, St. Clair County 3 SE
St. Elmo, Sky Ranch 2.5N
Selma, Wiseman 4.5 SW

Arizona
Arizona City 1S
Bouse 0.5E
● Casa Grande, Francisco Grande 7 W
Tolleson, Moseley Fld 3N

Arkansas
Berryville, Carroll County 3.5 W
Booneville Sanatorium 3 E
Osceola Muni 2 W
Watson, Shilow 7 SE

California
Brentwood, Detla Airpark 5 N
● Culver City, Hughes 3 SW
Desert Center 5 NE
Midland 1 S
Ojar, Henderson Fld 3 SW
Pleasant Grove, Van Dyke 3 N
● Rialto Mun 2 NE

Colorado
Gardner, Leavell Cattle Co. 17 NW
Greeley, Easton 7.5SE
● Hayden, Yampa Valley 2 SE
Rocky Ford, Mellon Fld 3 SW

Florida
● Cape Canaveral, Port Kennedy Heliport 6 N Cocoa Beach
Eustis, Mid Florida Air Service 3 E
Plant City, Tampa/Brandon/Plant City Arpk
● Shell Point 1 N
Winter Haven Muni Seaplane Base 3 NNW

Georgia
Asburn, Turner Co. 1 SW
Canon, Franklin Co. 2.5 SW
Jesup, Redlands 5 NW
Lawrenceville, Gwinnett County 2 NE
Newnan, Newnan-Coweta County 4 S
Patterson, Forestry 2 SE
Sylvester, Worth County 4 NW
Tifton, Eaglehead 6 WSW

Idaho
Elk City Adj SW

Illinois
Baldwin, Redpath 2 E
Franklin Grove, Full 3 NE
● Newton, Jasper County Flying Club 3 S
Rushville, Flying Club 2.5 NE
Spring Valley, Valley 1 NW

Indiana
Batesville, Hillenbrand Industries 3 NW
Mentone, Manwaring 0.8 NW
● Sullivan County 2 NW
Vevay, Robinson 8 SW

Iowa
Albia Muni 3.8 SE
Albion, Leise 2.6 NE
Cedar Rapids, Welty Way Heliport 2 SW
Marion, Linn-Aire 2 E
Mount Veron, Tonne 4.0 N
Sidney, Knox 3 WSW
Wapello, Brockway Flying B 2.5 NW

Kansas
Lucas, Wilson Reservoir 7 S
● Minneola, Kennedy Glider Port 4 SW
Salina Muni 3 SW

Kentucky
Columbia, Ludot 2 SW
Russellville, Russellville-Logan County 5 SE

Louisiana
Bassier City, Scopena Plantation 10 SE
Belle Rose, Cone Air 1 W
Cottonport Flying Service 0.3 W
Coushatta, Hanna 1 S
Darnell, Boyou Meadows Airstrip 4 NE
Lafayette Heliport 2 SE
Melville, Hanks 1 S
Mer Rouge, Bacon 1 S
Mora, James 4 E
Patterson, Tri Ville Aviation Inc Seaplane Base 1 SE
St. Joseph, Hunter May 4 N
St. Martinville adj NE
Senath, Reynolds Fld 3.8 SE
Shreveport, Aero Enterprises 7.1 S
Starks 3 S
Tendal 4 B Ranch 2 SE
Transylvania, Batton 3 W
● Venice, Garden Island Bay 16 SE

Michigan
Selkirk, Thompson 0.3 SE

Maine
Rangley, Davis Marine Seaplane Base 2 S

Minnesota
Buffalo Muni 1.0 SE
● Duluth Sky Harbor Seaplane Base 4 S
Hallock Muni 1 S
Park Rapids, Sky Manor Aero Estates 9 N

Mississippi
Fort Adams, Kees Ranch 8 N
Lucidale, Farmco Fld 11 S
Monticello, Clay 1 N
Okalona, Leuth Flying Service 5 S
Tylertown 2.5 NW

Missouri
● Archie, McDonnell 3.5 W
Desota 0.5 E
Lewiston 1.5 SE
● Memphis-Schenk 3 NW
Montgomery City, Pleasant Acres 5 NE
● Reeds Spring-Emerson 0.5 S
Warrensburg, Lake Sexton 9 SE

Montana
Anaconda, Mt. Haggins Landing Strip 11.5 SW
Frazer (Fort Peck) Browns Airfield 14 S
Lustre, Wall 6 NE

Nebraska
Hyannes, Davis Ranch 13 N
Lisco, Brennan Ranch 15 NNE
Oxford 2 W
Weissert 0.2 SE

Nevada
Baker 2 S
Coaldale 1 S
Fernley, Southwest Gas Airstrip 3 SE
Pahrump, Hidden Hills 16 SE
● Paradise Valley, 4-R Ranch Airstrip 8 SSE
Round Mountain, R. O. Ranch 15 N
Wellington, Valley View Arpk 5 NNW

New Jersey
Bargaintown, Nordheim Flying K Ranch 1 NW
Newton 1.9 S

New Mexico
Loco Hills 0.2 S
Roy Muni Adj SW

New York
Alexandria Bay, Maxson Fld 1.3 S
Brant Air Service Landing Area 0.9 SW
West Bloomfield Flying Club 1.5 SW
● Whitesboro, Riverside 1 SE

North Carolina
Boone, Blowing Rock 2.7 SE
● Culowhee, Dillard 0.7 SSW
● Farmville, Crafts 1 W
Long Beach, Brunswick Co. 2 N
Macon, Mocarva 7 N
Mebane, Hurdle Fld 1.8 SSE
● Wendell, Buchanan 1 N

North Dakota
● Durbin Adj NW
McCanna, Janice Fld 5 NW
Rutland, Pearson 4.5 N

Ohio
Galloway, Columbus Arpk, Inc. 3 NE of West Jefferson
Mt. Vernon 4.5 S

Oklahoma
Atoka Muni 1.8 NW
Bristow, Jones Meml 2.5 SW
Coalgate, Rice 0.5 E of Clarita
Dustin 2 SE
Edmond, Service 2.5 NE
Eufaula, Canadian Fork 4 SE
Fairland, Bobbitt Fld 0.5 W
Wetumka, Petes Arpk Adj E

Pennsylvania
Tyrone, Peterson Meml Fld 4 S

South Carolina
Estill Muni 2 S
Union County 2 SW

Tennessee
Cedar Hill, Flying W Ranch 7 S
Spring Hill, Haynes Haven Farm 3 SW
● Trenton, Gibson County 5 SE

Texas
Balmorhea Lake 2 SE
Clifton Muni 2 N
Elbert, Bailes 1 E
Eldorado, Derrick Ranch 21 E
Fort Worth, Oak Grove Heliport 13 S
Graford, Harmar Marina 12 WSW
Grandview, McLeroy Ranch 2 NNW
Honey Grove, Burchinal 2 W
Lampass County 2 N
Laredo, Link Ranch 6 S
Martin, Huff Fld 1 SE
● McGregor Muni 5.6 NE
Mesquite, Cole 5 SE
Perryton, Harbaugh 22S
Port Lavaca, Calhoun County 4 NW
Sabinal, McCullough Ranch 12 N
San Angelo, West Texas Boys Ranch 15 SE
San Marcos Muni 5 E
Vernon, Lockett 6 SW
Zapata, Jennings Ranch 18 NE

Virginia
Basye, Sky Bryce 1.5 NE
Hopewell Seaplane Base 3 E
Norfolk Heliport Downtown Area
Oak Grove, Harbor View 1.8 NE

Washington
Enumclaw 1.4 WSW
Harrington, Kramer Ranch 8 SSW
Moses Lake, Grant County 5.5 NW
Stanwood, Strev Air 3 NW
Sultan, Sky Harbor 1 E

West Virginia
Alderson, Riverside 1 W

Wisconsin
Genoa City, Vincent 2 NE
Park Falls Muni 1 NE
Tony, Lake Flamebeau Rusk Co Seaplane Base 1 NW
Verona, Verona Acft and Transportation Inc. 2 NE

Wyoming
Marshall, Robbins 2 S

Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

Alabama
Bayou La Batre, Bay View 7 E (a)
Haynesville, Beechwood 5 SW (c)

Arizona
Somerton, McDaniel Fld 3 W (c)
Stanfield Adj NW (a)

Arkansas
Berryville 1 NW (a)
Gassville, Red Bud Trout Dock 1 S (a)
● Horatio, Billingsley's 3 SW (c)
Hunstville, Reeves 2 SE (a)
Stuttgart, Grandgeorge 7 SE (c)

California
Buttonwillow-Kern Co. (a)
Merced, Bellevue 5 N (a)

Connecticut
Marlborough-Lesenwski 3 SE (c)

Delaware
Magnolia, Johnson adj W (c)

Florida
● Avon Park, El Clair Ranch Lady Strip 6 WSW (c)
Everglades 1 SW (a)
Geneva, Bruce 3 SE (a)
Samsula, Spruce Creek 3 N (a)

Idaho
● Arco, Soleberg 5 W (a)
Orofino, Moose Creek Ranch 59 SE (c)

Illinois
Amboy-Albrercht 5 S (c)
● Jonesboro, Kollehner 2 SW (a)
Lebanon, Lebert Strip 1 SE (c)
Monticello, Allberton Park 2 W (c)
Tinley Park, Prosperi 1 W (a)
Waterloo, Dugan 1 S (c)

Indiana
Chesterton, Bodin 2 NE (c)
● Elkhart, Midway 5 SE (a)

Kansas
Baxter Springs, Y and M (c)
Benton, Nelson Fld Adj SW (c)
Geneseo, Kratzer 5 NW (a)
● Lewis, Farold Fld 1 SW (c)
Lorraine, Wilkens 2 SW (a)
Pratt, Fincham 10 N (a)
Pretty Prairie, Unrich 3 NE (c)
Salina Muni 2 SE (a)
Scott City, Kough 20 NW (c)
Wakeeney, Gallaway 3 NE (c)

Louisiana
Hackberry adj NW (a)
Harvey Seaplane Base Adj S (a)
Montgomery, Hall 1 NW (a)
New Iberia, Dugas 3N (a)
● Waverly, McPherson adj NW (a)
Wisner Airstrip 1 W(c)

Maryland
Baltimore, Rutherford 7 NW (c)
Silesia, Bower Fld 2 N (c)

Massachusetts
● West Brookfield 2 SE (c)

Michigan
Gaylord, Au Sable Ranch 5 SE (c)

Minnesota
● Grand Marias, Rockwood Lodge Seaplane Base 30 NW (a)

Mississippi
Belzoni Charter Service 1 E(a)
● Charleston, Paynes 6 SW (c)
Magnolia, Progress 10 SE(a)

Missouri
Gravois Mills, Adkins 3 SE (c)
St. Joseph, Eastside 1 E(a)

Montana
Gallatin Gateway, Nine Quarter Circle Ranch 32 S (c)
Havre, Davis 10 NE (c)
Lodge Grass, Pope 8 SE (a)
Sand Springs, Kreider Ranch Adj S (c)

Nebraska
Elkhorn, St. Johns Seminary 2 NW (c)
Lincoln, Eden Sky Ranch 1 E (c)
Lisco, Buske Fld 6 NE (a)

New York
Albany, Tallent Fld 6.5 SW(a)
Chippewa Bay, Allens Fld 2 NW (a)
Kerhonkson, Piolis Brookside 4 NNW(c)
Lafargeville, Tims Angus Farms 3 E (c)
Lockport, Cambria 4 NW (c)
Mohawk, Mac 1 SE (c)

North Carolina
Durham, Wilkens 7 NE (c)
Gibsonville, McLean Bros 1 SW(c)

Ohio
Amelia, Sky Hill NE (a)
Caldwell, Myrtle Fld 3 S (a)
Canal Winchester, Anderson 3 SE (c)
Circleville, Elsea 2 N (a)
Cleveland, Burke Lakefront Seaplane Base 1 N (a)
Morrow 2 SW (a)
Norwalk, 2N (a)
Tiffin, Circle V Flying Fld 4SW (a)

Oklahoma
Muscogee, Schumacher 3 S(a)
Wilson, Cockerell Adj S (a)

Pennsylvania
Hawley-Greenetown Mountain Bay, Lake Wallenpaupack 6 SW (a)
Mahanoy City, Bedinsky 2 SE (c)
Matamoras Muni Adj SE (a)

Rhode Island

- ●Green, Riconn 2 W (c)

Tennessee

- ● Milan, Boen Fld 3 NE (a)
- ● Milan Muni 2 E (a)

Texas

- Arlington, Lucas 3 SW (c)
- Azle, Atwood 3 NW (a)
- Cotton Center Starnes 7 S (a)
- ●Diboll, Southern Pine Lumber Co. 1 NE (a)
- Palacios, Richman 5 NE (c)
- Pecan Gap 1 SW (c)
- San Antonio, Intl Heliport 7 N (a)
- San Antonio, Riverview Arpk 9 SW
- Sanderson 2 W (a)
- Sudan Adj S (a)
- Valentine 1 NW (a)

Utah

- Torrey 1 S (a)

Washington

- Carson Adj S (a)
- Gurney, Spud River 1.8 SSW (c)
- ●White Salmon 1 NW (c)

West Virginia

- Fairmont Muni 2 SE (a)

Wisconsin

- Lake Geneva, Arnold Arpk 0.8 SE (c)
- Lake Geneva, Wal-Co-Wis Farms 2.5 S (c)
- Neenah, Valley Airways 3 SW (c)
- Park Falls, Robbel 1 NW (a)
- Plymouth, Carm 2 NW (a)
- Sturtevant, Air City (a)

SPECIAL USE AIRSPACE

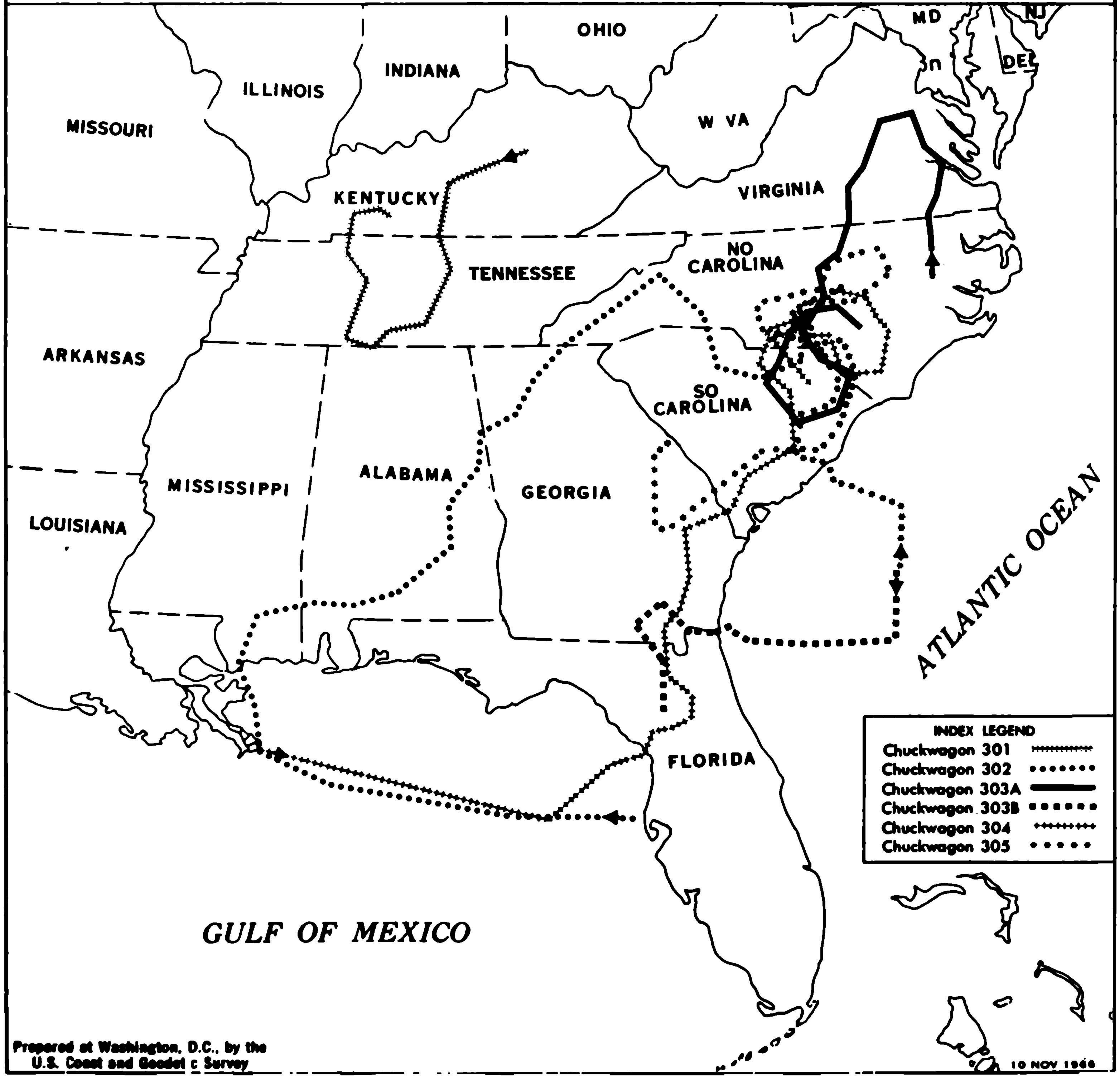
• INDEX OF CHUCKWAGON ROUTES

"CHUCKWAGON" LOW-LEVEL ROUTES

"The USAF will conduct 20 low-level navigation evaluation flights during the period November 14, 1966 through December 15, 1966. These aircraft will operate in both VFR and IFR weather conditions along routes nicknamed "CHUCKWAGON" with a numerical designation in the 300 series. EXAMPLE: "CHUCKWAGON 302." Operations are contained within nine nautical miles on either side of the center line, except that on the VFR segments they will be contained within four nautical miles of the center line. When route width shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts, except that on some segments when the weather conditions are 3000′ ceiling and five mile visibility or better, aircraft may descend to an altitude of not less than 500′ above the terrain. Flights may be conducted only during the hours specified for each route. The current operational status of a particular route may be obtained by calling a Flight Service Station near the route. Revised information is underlined. Scheduling Agency: Hq USAF, AFXPDRC/TB, Wash., D. C. 20330."

ROUTE LEGEND

- ········ Entry Tracks
- – – – Climb out Tracks
- ●→ Positions specified in Text
- 4000 IFR Altitude
- ▨ VFR & Contour Altitudes (3000 Ceil-5 Mi Vis)


OHIO
MD
NJ
DEL
INDIANA
ILLINOIS
MISSOURI
W VA
KENTUCKY
VIRGINIA
NO CAROLINA
TENNESSEE
ARKANSAS
SO CAROLINA
MISSISSIPPI
ALABAMA
GEORGIA
LOUISIANA
ATLANTIC OCEAN
FLORIDA
GULF OF MEXICO
INDEX LEGEND
Chuckwagon 301
Chuckwagon 302
Chuckwagon 303A
Chuckwagon 303B
Chuckwagon 304
Chuckwagon 305
10 NOV 1966

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

KENTUCKY/TENNESSEE/ALABAMA

CHUCKWAGON 301

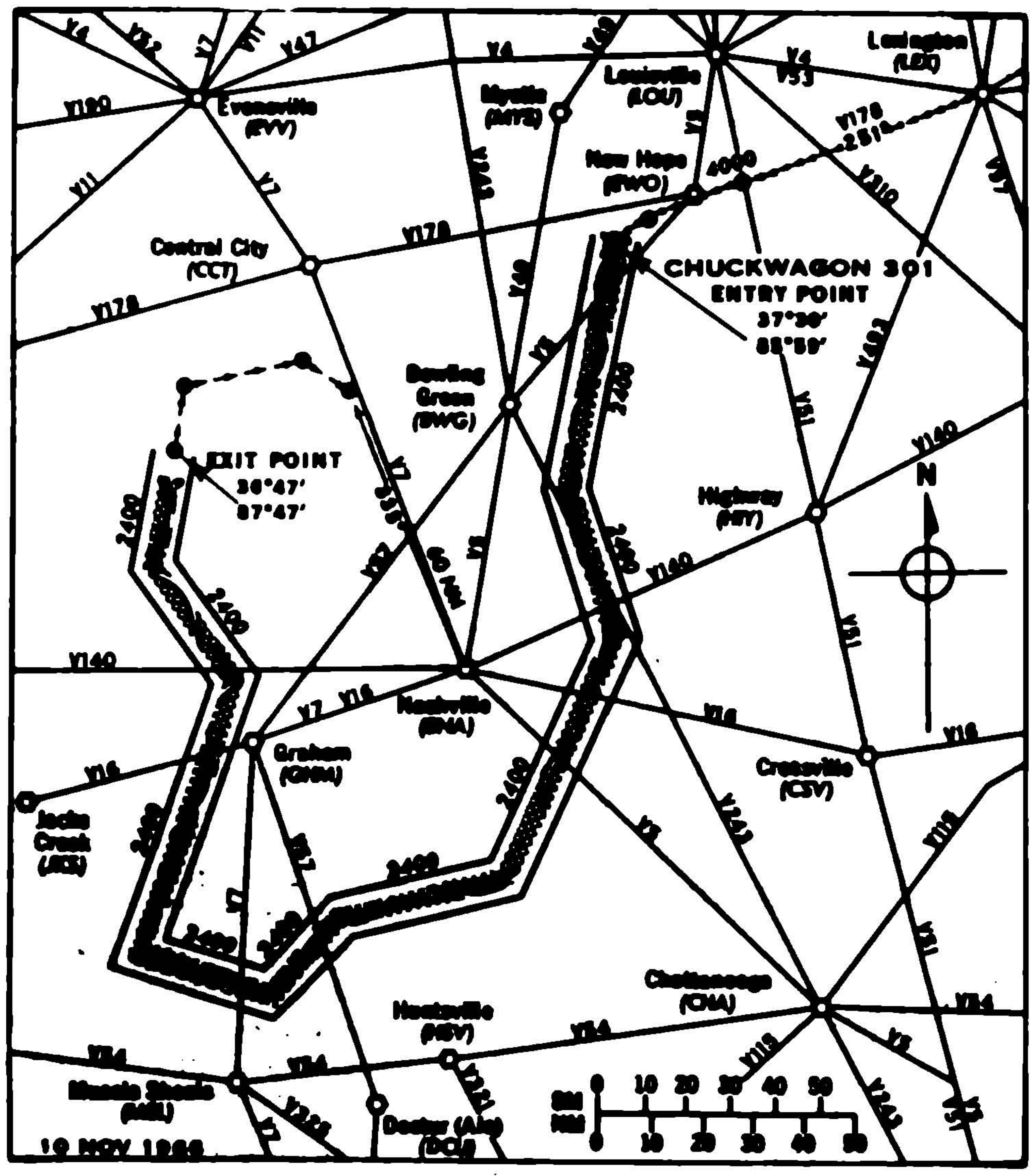
Effective November 14, 1966

Aircraft shall cross the Lexington, Kentucky VORTAC at FL 230 or as assigned, then proceed southwest on the Lexington VORTAC 251° radial descending so as to cross 37°41'30''N, 85°28'W at 4000' MSL; maintain 4000' MSL direct New Hope, Ky. VOR; turn left direct 37°33'30''N, 85°51'W at 4000' MSL; descend to 2400' MSL direct to the route entry point 37°30'N, 85°59'W, maintain 2400' MSL direct 36°41'N, 86°10'W, maintain 2400' MSL direct 36°13'N, 85°59'W, maintain 2400' MSL direct 35°24'30'' N, 86°26'W, maintain 2400' MSL direct 35°17'N, 87°05'W, maintain 2400' MSL direct 35°01'N, 87°20'W, maintain 2400' MSL direct 35°09'N, 87°52'W, maintain 2400' MSL direct 36°02'30''N, 87°30'30''W, maintain 2400' MSL direct 36°24'N, 87°51'30''W, maintain 2400' MSL direct 36°47'N, 87°47'W. After exiting the route at 36°47'N, 87°47'W aircraft shall climb direct 37°00'N, 87°45'W, direct 37°06'N, 87°15'W, direct 37°00'N, 87°05'W (Nashville, Tenn. VORTAC 335/60) crossing 37°00'N, 87°05'W at FL 190 or as assigned. When crossing 37°00'N, 87°45'W pilot will report Chuckwagon 301 to Memphis ARTCC on 381.4 or 128.7 mc.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR bewteen the IFR altitudes (2400' MSL) and 500' above the immediate terrain between the following points: From 37°30'N, 85°59'W to 36°41'30''N, 87°48'W.

Route Width—The entire IFR low level route is reduced to 4 NM either side of centerline. The entire VFR contour route width is reduced to 2 NM either side of centerline.

Hours of Operation—0000Z to 1200Z one day each week.

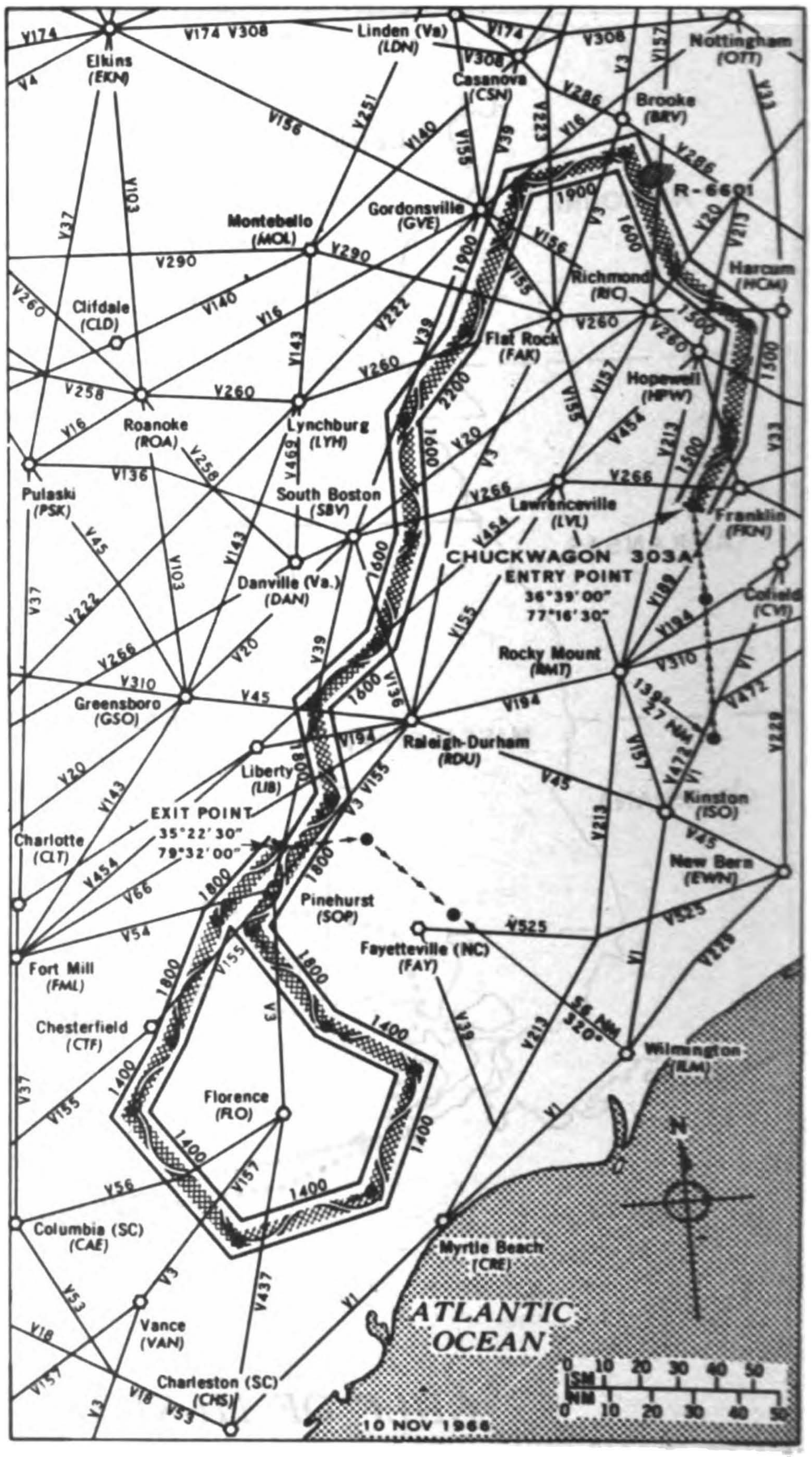

Evansville (EVV)
Central City (CCT)
Louisville (LOU)
Lexington (LEX)
New Hope (EWO)
4000
V178 251°
CHUCKWAGON 301 ENTRY POINT 37°30' 85°59'
EXIT POINT 36°47' 87°47'
Bowling Green (BWG)
Highway (HHY)
Nashville (BNA)
Graham (GHM)
Crossville (CSV)
Chattanooga (CHA)
Huntsville (HSV)
Muscle Shoals (MSL)
Decatur (Ala) (DCU)
2400
335°
60 NM
N
SM NM 0 10 20 30 40 50
10 NOV 1966

NORTH CAROLINA/VIRGINIA/SOUTH CAROLINA

CHUCKWAGON 303A

Effective November 14, 1966

Aircraft shall cross 35°40'N, 77°18'30''W (Rocky Mount, N.C. VORTAC 139/27) at FL 190 or as assigned by ARTCC and begin descent direct 36°16'N, 77°15'W, then turn left continuing descent so as to cross the route entry point at 36°39'N, 77°16'30''W at 1500' MSL, then at 1500' MSL, then at 1500' MSL direct 36°55'N, 77°04' W, then at 1500' MSL direct 37°24'30''N, 76°53'30''W, then at 1500' MSL direct 37°40'N, 77°12'30''W, then climb to 1600' MSL direct 38°11'N, 77°22'30''W, then climb to 1900' MSL direct 38°06'30''N, 77°57'30''W, then at 1900' MSL direct 37°29'N, 78°18'30''W, then climb to 2200 MSL direct 37°09'30''N, 78°40'30''W then descend to 1600' MSL direct 36°38'30''N, 78°41'W, then at 1600' MSL direct 36°13'N, 78°55'W, then at 1600' MSL direct 35°58'30''N, 79°17'30''W, then climb to 1800' MSL direct 35°33'30''N, 79°14'30''W, then at 1800' MSL direct


Elkins (EKN)
Linden (Va) (LDN)
Casanova (CSN)
Nottingham (OTT)
Brooke (BRV)
R-6601
Gordonsville (GVE)
Montebello (MOL)
Richmond (RIC)
Harcum (HCM)
Cliftdale (CLD)
Flat Rock (FAK)
Hopewell (HPW)
Roanoke (ROA)
Lynchburg (LYH)
Pulaski (PSK)
South Boston (SBV)
Lawrenceville (LVL)
Franklin (FKN)
CHUCKWAGON 303A ENTRY POINT 36°39'00" 77°16'30"
Danville (Va.) (DAN)
Rocky Mount (RMT)
Cofield (CVI)
Greensboro (GSO)
Raleigh-Durham (RDU)
Liberty (LIB)
EXIT POINT 35°22'30" 79°32'00"
Charlotte (CLT)
Kinston (ISO)
New Bern (EWN)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Fort Mill (FML)
Chesterfield (CTF)
Florence (FLO)
Wilmington (ILM)
Columbia (SC) (CAE)
Myrtle Beach (CRE)
Vance (VAN)
Charleston (SC) (CHS)
ATLANTIC OCEAN
1500
1600
1900
2200
1800
1400
139° 27 NM
320° 56 NM
N
SM NM 0 10 20 30 40 50
10 NOV 1966

CHUCKWAGON 302 AND 304 FOLLOW CHUCKWAGON 305

35°02'30"N, 79°43'30"W, then at 1800' MSL direct 34°36' N, 79°23'W, then descend to 1400' MSL direct 34°23'N, 78°56'W, then at 1400' MSL direct 33°51'30"N, 79°13'W, then at 1400' MSL direct 33°42'30"N, 79°56'30"W, then at 1400' MSL direct 34°17'N, 80°26'W, then at 1400' MSL direct 34°35'N, 80°12'W, then climb to 1800' MSL direct 35°05'N, 79°54'30"W, then at 1800' MSL direct route exit point at 35°22'30"N, 79°32'W, then turn right climbing direct 35°22'N, 79°05'W, then turn right continuing climb so as to cross 35°01'N, 78°40'W (Wilmington, N.C. VORTAC 320/56) at FL 190. When passing 37°29'N, 78°18'30"W pilot will report "CHUCKWAGON 303" to Richmond approach control. When passing 36°13'N, 78°55'W pilot will report "CHUCKWAGON 303" to Raleigh-Durham approach control.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 36°39'N, 77°16'30"W to 35°22'30"N, 79°32'W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline. The entire VFR route width is reduced to 2 NM either side of centerline. Aircraft operating IFR or VFR shall remain clear of area R–6601.

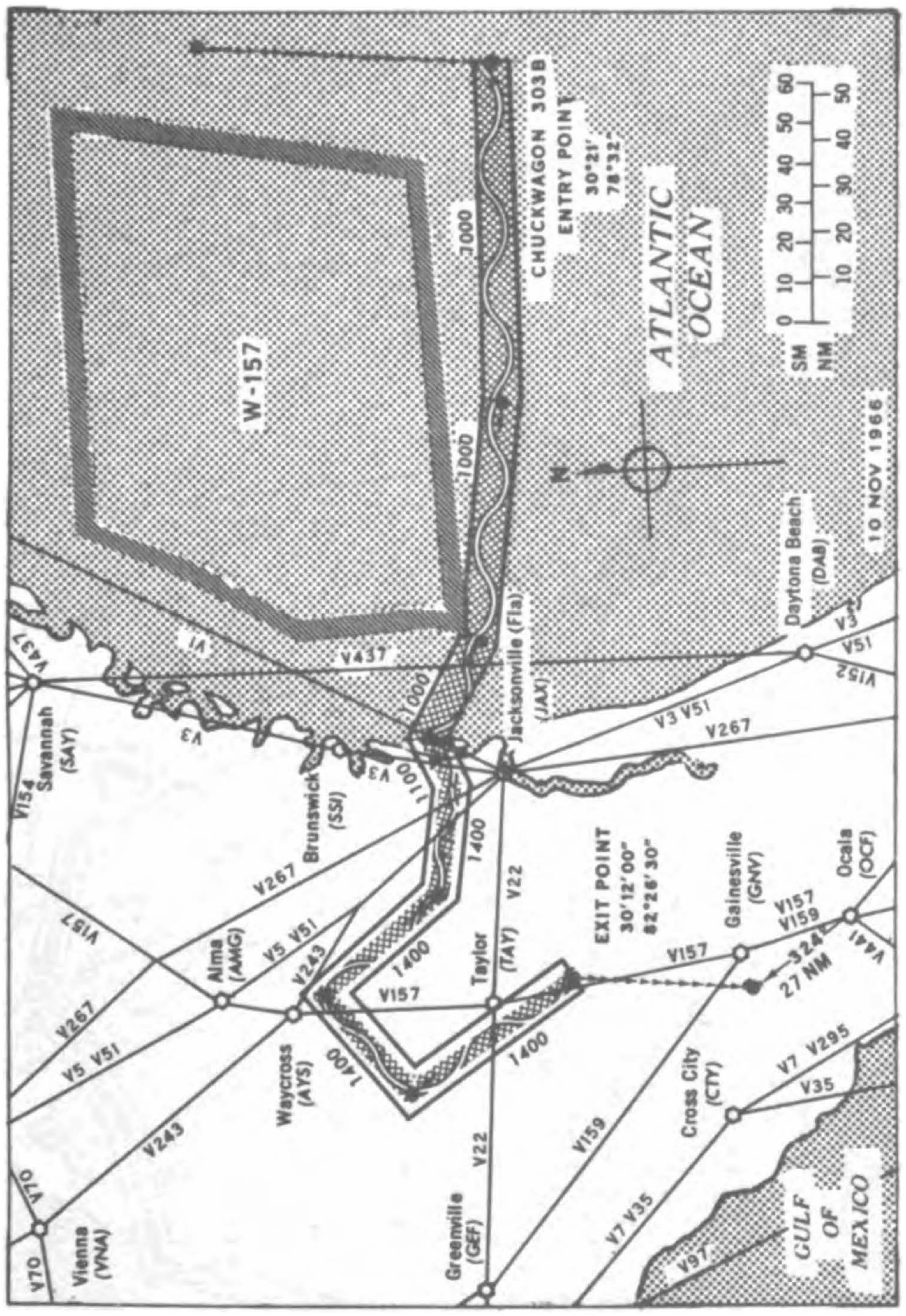
Hours of Operation—0000Z to 1200Z one day each week.

FLORIDA/GEORGIA

CHUCKWAGON 303B

(This is a continuation of Route 303 A)

Effective November 14, 1966


W-157
CHUCKWAGON 303B
ENTRY POINT
30°21'
78°32'
ATLANTIC OCEAN
SM
NM
0 10 20 30 40 50 60
10 20 30 40 50
10 NOV 1966
1000
1000
1000
1100
1400
1400
1400
1400
Daytona Beach (DAB)
Jacksonville (Fla) (JAX)
Savannah (SAV)
Brunswick (SSI)
Alma (AMG)
Waycross (AYS)
Taylor (TAY)
Gainesville (GNV)
Ocala (OCF)
Cross City (CTY)
Greenville (GEF)
Vienna (VNA)
EXIT POINT
30°12'00"
82°26'30"
324
27 NM
GULF OF MEXICO
V437
V1
V3
V3 V51
V267
V152
V51
V154
V157
V5 V51
V243
V22
V159
V7 V35
V7 V295
V35
V97
V441
V70
V157 V159

Aircraft shall cross 31°26'N, 78°23'W at FL 310 or assigned by ARTCC; then descend direct so as to cro the route entry point at 30°21'N, 78°32'W at 1000' MS then at 1000' MSL direct 30°23'N, 80°00'W, then at 100 MSL direct 30°30'N, 81°00'W, then at 1000' MSL dire 30°43'N, 81°25'W, then climb to 1100' MSL direct 30 38'30"N, 81°37'W, then climb to 1400' MSL direct 30 41°30"N, 82°04'30"W, then at 1400' MSL direct 31°08' 82°30'W, then at 1400' MSL direct 30°48'30"N, 82°55'30 W, then at 1400' MSL direct to route exit point at 30°1 N, 82°26'30"W, then turn right climbing to 5000' MS (Request FL 180 from ARTCC) direct to 29°32'N, 82 31'W (Ocala, Fla. VORTAC 324/27).

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and opera VFR between the IFR altitudes indicated on the cha and 500' above the immediate terrain between the follo ing points: From 30°21'N, 78°32'W to 30°12'N, 82°26 30"W.

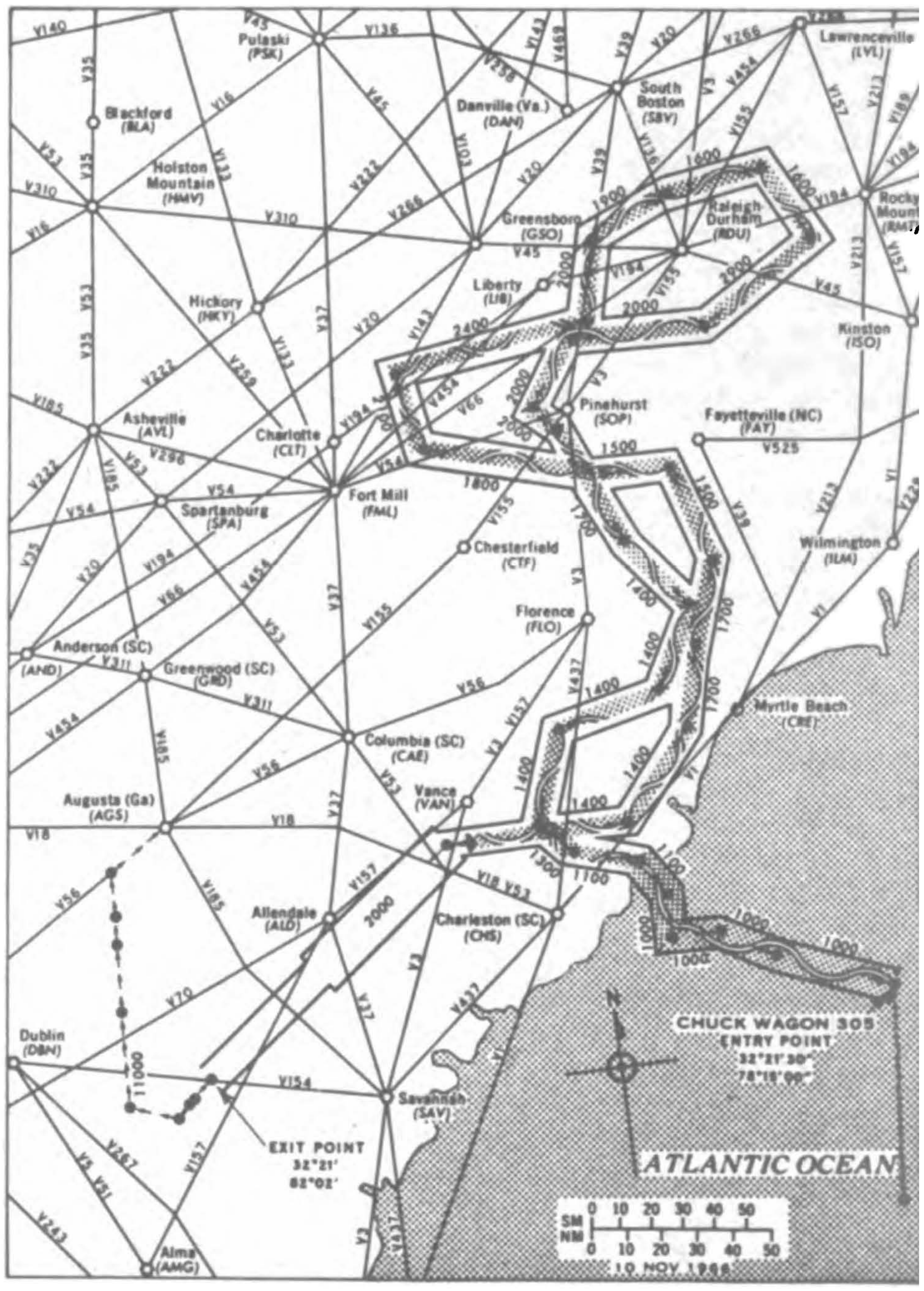
Route Width—The entire IFR route width is reduced 4 NM either side of centerline. The VFR route width reduced to 4 NM either side of centerline from 30°21' 78°32'W to 30°43'N, 81°25'W and 2 NM either side centerline from 30°43'N, 81°25'W to 30°12'N, 82°26'30 W. Aircraft operating IFR or VFR shall remain cle of Area W–157.

Hours of Operation—0000Z to 1400Z one day each wee

SOUTH CAROLINA/NORTH CAROLINA/GEORGI

CHUCKWAGON 305

Effective November 14, 1966


Pulaski (PSK)
Lawrenceville (LVL)
Blackford (BLA)
Holston Mountain (HMV)
Danville (Va.) (DAN)
South Boston (SBV)
Greensboro (GSO)
Raleigh Durham (RDU)
Liberty (LIB)
Hickory (HKY)
Kinston (ISO)
Asheville (AVL)
Charlotte (CLT)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Fort Mill (FML)
Spartanburg (SPA)
Chesterfield (CTF)
Wilmington (ILM)
Florence (FLO)
Anderson (SC) (AND)
Greenwood (SC) (GRD)
Myrtle Beach (CRE)
Columbia (SC) (CAE)
Augusta (Ga) (AGS)
Vance (VAN)
Allendale (ALD)
Charleston (SC) (CHS)
Dublin (DBN)
Savannah (SAV)
Alma (AMG)
EXIT POINT
32°21'
82°02'
CHUCK WAGON 305
ENTRY POINT
32°21'30"
78°15'00"
ATLANTIC OCEAN
SM
NM
0 10 20 30 40 50
10 NOV 1966
11000
1000
1100
1300
1400
1500
1600
1700
1800
1900
2000
2400

Aircraft shall cross 31°22'N, 78°23'W at FL 190 or as assigned by ARTCC; then descend direct so as to cross the route entry point at 32°21'30''N, 78°15'W at 1000' MSL: then at 1000' MSL direct 32°34'N, 78°52'W, then at 1000' MSL direct 32°43'30''N, 79°09'30''W, then at 1000' MSL direct 32°44'N, 79°25'30''W, then at 1000' MSL direct 32°56'N, 79°25'30''W, then climb to 1100' MSL direct 33°06'30''N, 79°33'30''W, then at 1100' MSL direct 33°11'N, 79°53'W, then climb to 1300' MSL direct 33°20'30''N, 80°04'W, then climb to 1400' MSL direct 33°44'N, 79°53'30''W, then at 1400' MSL direct 33°51'30''N, 79°17'30''W, then at 1400' MSL direct 34°14'30''N, 79°01'30''W, then at 1400' MSL direct 34°34'30''N, 79°21'W, then climb to 1700' MSL direct 35°07'N, 79°38'30'' W, then climb to 2000' MSL direct 35°13'N, 79°47'W, then at 2000' MSL direct 35°33'N, 79°31'W, then at 2000' MSL direct 35°29'30''N, 78°43'30''W then climb to 2900' MSL direct 35°49'N, 78°02'W, then descend to 1600' MSL direct 36°11'30''N, 78°15'30''W, then at 1600' MSL direct 36°08'30''N, 78°49'30''W, then climb to 1900' MSL direct 35°59'N, 79°16'W, then climb to 2000' MSL direct 35°37' N, 79°24'30''W, then climb to 2400' MSL direct 35°29'30'' N, 80°28'30''W, then descend to 2100' MSL direct 35°08'30''N, 80°26'W, then descend to 1800' MSL direct 34°53'N, 79°25'W, then descend to 1500' MSL direct 34°52'30''N, 79°03'30''W, then at 1500' MSL direct 34°26'30''N, 78°52'30''W, then climb to 1700 MSL direct 34°04'30''N, 79°03'W, then at 1700' MSL direct 33°41'30''N, 79°10'W, then descend to 1400' MSL direct 33°17'30''N, 79°35'W, then at 1400' MSL direct 33°17'30''N, 80°28'W, then climb so as to cross and intercept OB-17 "WALNUT GROVE" at 33°17'30''N, 80°35'W at 2000' MSL. Then at 2000' MSL direct to route exit at 32°21'N, 82°02'W, then climb to 3000' MSL direct 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4000' MSL; cross 32°12'N, 82°15'W at 6000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11.000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30''W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga. VORTAC. When crossing 35°29'30'' N, 80°28'30''W the pilot will report "CHUCKWAGON 305" to Charlotte approach control on 257.8 MC.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' MSL above the immediate terrain between the following points: From 32°21'30''N, 78°15'W to 33°17'30''N, 80°28'W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline except from 33°17'30''N, 80°35'W to 32°47'N, 81°23'W, the route width is reduced to 6 NM either side of centerline. The VFR route width is reduced to 4 NM either side of centerline from 32°21'30''N, 78°15'W to 33°06'N, 79°33'30''W; and 2 NM either side of centerline from 33°06'N, 79°33'30''W to 33°17'30''N, 80°28'W.

Hours of Operation—0000Z to 1400Z one day each week.

FLORIDA/LOUISIANA/MISSISSIPPI/ALABAMA/ GEORGIA/TENNESSEE/NORTH CAROLINA/ SOUTH CAROLINA

CHUCKWAGON 302

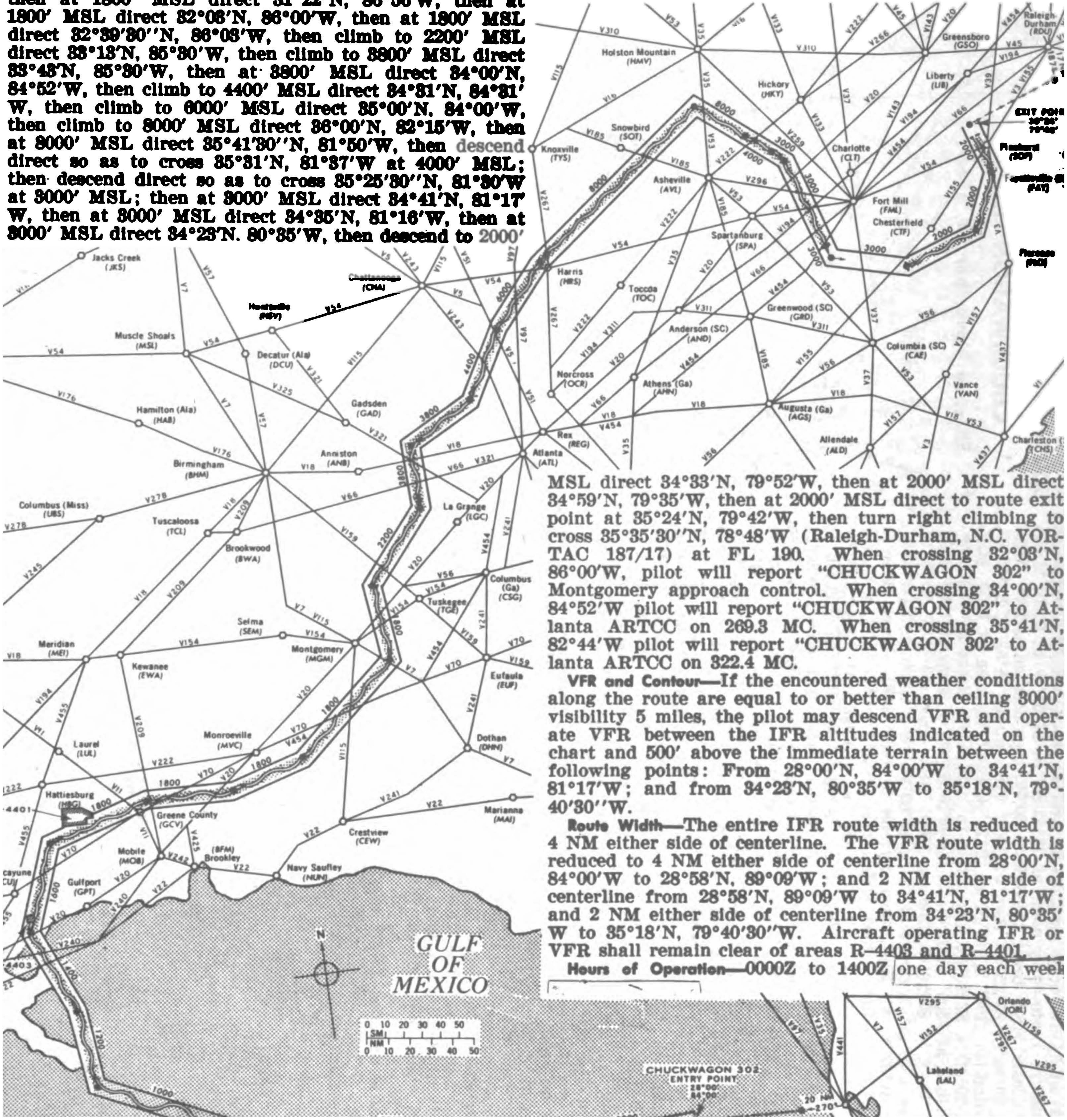
Effective November 14, 1966

Aircraft shall cross St. Petersburg, Fla. VORTAC at FL 180 or as assigned by ARTCC then direct 27°55′N, 83°04′W (St. Petersburg VORTAC 270/20) at FL 180 or as assigned; then descend so as to cross route entry point at 28°00′N, 84°00′W at 2000′ MSL; then at 2000′ MSL direct 28°00′N, 85°00′W, then at 2000′ MSL direct 28°30′N, 88°00′W, then descend to 1000′ MSL direct 28°58′N, 89°09′W, then climb to 1200′ MSL direct 29°-35′N, 89°15′W, then climb to 1400′ MSL direct 30°15′N, 89°35′30′′W, then climb to 1600′ MSL direct 30°57′N, 89°19′W, then climb to 1800′ MSL direct 31°12′N, 88°24′W, then at 1800′ MSL direct 31°13′N, 87°36′W, then at 1800′ MSL direct 31°22′N, 86°56′W, then at 1800′ MSL direct 32°03′N, 86°00′W, then at 1800′ MSL direct 32°39′30′′N, 86°03′W, then climb to 2200′ MSL direct 33°13′N, 85°30′W, then climb to 3800′ MSL direct 33°43′N, 85°30′W, then at 3800′ MSL direct 34°00′N, 84°52′W, then climb to 4400′ MSL direct 34°31′N, 84°31′ W, then climb to 6000′ MSL direct 35°00′N, 84°00′W, then climb to 8000′ MSL direct 36°00′N, 82°15′W, then at 8000′ MSL direct 35°41′30′′N, 81°50′W, then descend direct so as to cross 35°31′N, 81°37′W at 4000′ MSL; then descend direct so as to cross 35°25′30′′N, 81°30′W at 3000′ MSL; then at 3000′ MSL direct 34°41′N, 81°17′ W, then at 3000′ MSL direct 34°35′N, 81°16′W, then at 3000′ MSL direct 34°23′N. 80°35′W, then descend to 2000′ MSL direct 34°33′N, 79°52′W, then at 2000′ MSL direct 34°59′N, 79°35′W, then at 2000′ MSL direct to route exit point at 35°24′N, 79°42′W, then turn right climbing to cross 35°35′30′′N, 78°48′W (Raleigh-Durham, N.C. VORTAC 187/17) at FL 190. When crossing 32°03′N, 86°00′W, pilot will report "CHUCKWAGON 302" to Montgomery approach control. When crossing 34°00′N, 84°52′W pilot will report "CHUCKWAGON 302" to Atlanta ARTCC on 269.3 MC. When crossing 35°41′N, 82°44′W pilot will report "CHUCKWAGON 302' to Atlanta ARTCC on 322.4 MC.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 28°00′N, 84°00′W to 34°41′N, 81°17′W; and from 34°23′N, 80°35′W to 35°18′N, 79°-40′30′′W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 4 NM either side of centerline from 28°00′N, 84°00′W to 28°58′N, 89°09′W; and 2 NM either side of centerline from 28°58′N, 89°09′W to 34°41′N, 81°17′W; and 2 NM either side of centerline from 34°23′N, 80°35′ W to 35°18′N, 79°40′30′′W. Aircraft operating IFR or VFR shall remain clear of areas R–4403 and R–4401.

Hours of Operation—0000Z to 1400Z one day each week


Holston Mountain (HMV)
Hickory (HKY)
Greensboro (GSO)
Raleigh-Durham (RDU)
Liberty (LIB)
EXIT POINT 35°24' 79°42'
Pinehurst (SOP)
Fayetteville (FAY)
Florence (FLO)
Snowbird (SOT)
Knoxville (TYS)
Asheville (AVL)
Charlotte (CLT)
Fort Mill (FML)
Chesterfield (CTF)
Spartanburg (SPA)
Harris (HRS)
Toccoa (TOC)
Greenwood (SC) (GRD)
Anderson (SC) (AND)
Columbia (SC) (CAE)
Vance (VAN)
Norcross (OCR)
Athens (Ga) (AHN)
Augusta (Ga) (AGS)
Allendale (ALD)
Charleston (CHS)
Rex (REG)
Atlanta (ATL)
Jacks Creek (JKS)
Chattanooga (CHA)
Huntsville (HSV)
Muscle Shoals (MSL)
Decatur (Ala) (DCU)
Gadsden (GAD)
Hamilton (Ala) (HAB)
Birmingham (BHM)
Anniston (ANB)
Columbus (Miss) (UBS)
Tuscaloosa (TCL)
Brookwood (BWA)
La Grange (LGC)
Columbus (Ga) (CSG)
Tuskegee (TGE)
Selma (SEM)
Montgomery (MGM)
Meridian (MEI)
Kewanee (EWA)
Eufaula (EUF)
Laurel (LUL)
Monroeville (MVC)
Dothan (DHN)
Hattiesburg (HBG)
Greene County (GCV)
Marianna (MAI)
Crestview (CEW)
Mobile (MOB)
(BFM) Brookley
Navy Saufley (NUN)
Gulfport (GPT)
8000
4000
3000
2000
4400
3800
2200
1800
1600
1200
1000
GULF OF MEXICO
N
0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
CHUCKWAGON 302 ENTRY POINT 28°00' 84°00'
20 NM
270°
Orlando (ORL)
Lakeland (LAL)

LOUISIANA/FLORIDA/GEORGIA/ SOUTH CAROLINA/NORTH CAROLINA

CHUCKWAGON 304

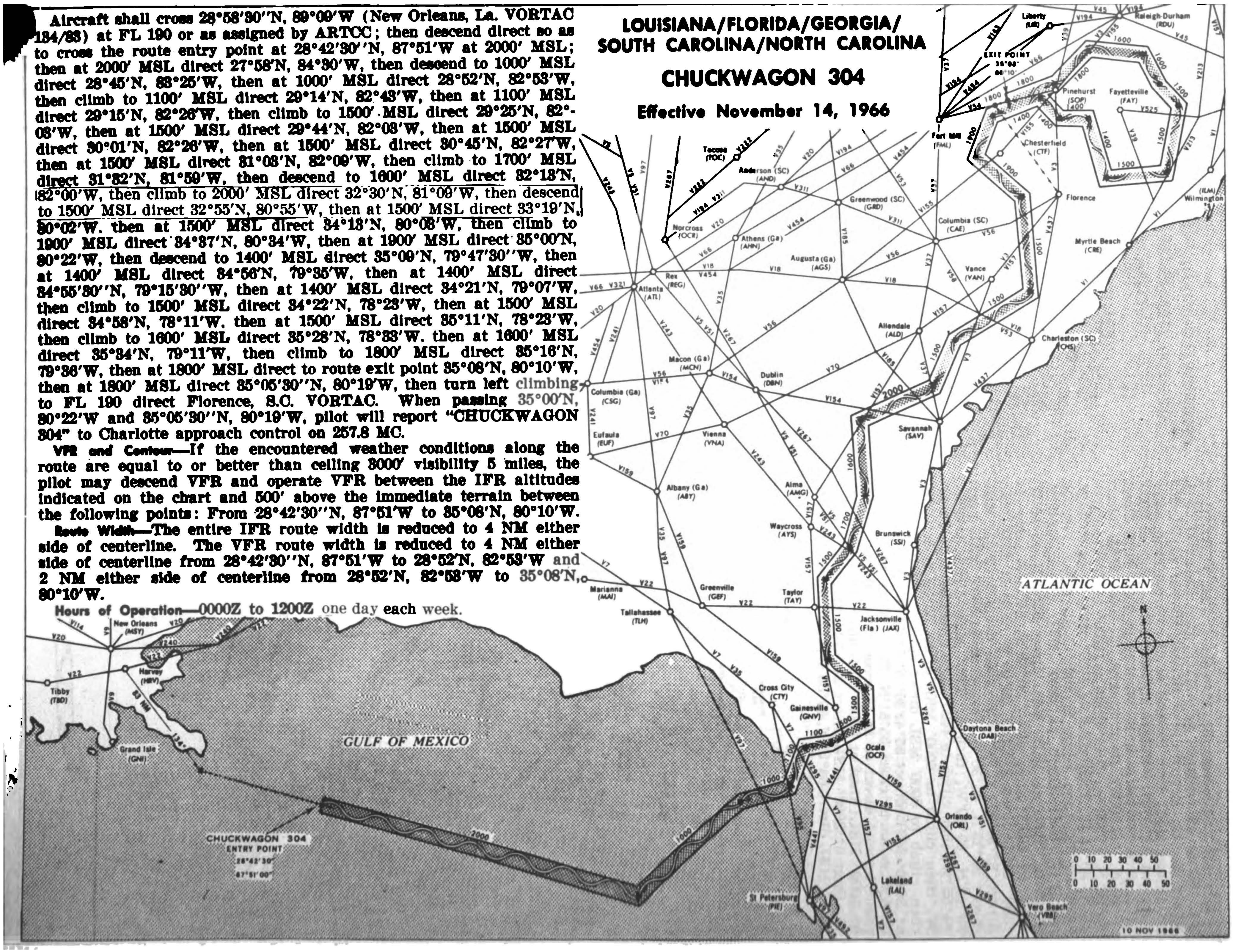
Effective November 14, 1966

Aircraft shall cross 28°58′30″N, 89°09′W (New Orleans, La. VORTAC 134/33) at FL 190 or as assigned by ARTCC; then descend direct so as to cross the route entry point at 28°42′30″N, 87°51′W at 2000′ MSL; then at 2000′ MSL direct 27°58′N, 84°30′W, then descend to 1000′ MSL direct 28°45′N, 83°25′W, then at 1000′ MSL direct 28°52′N, 82°53′W, then climb to 1100′ MSL direct 29°14′N, 82°43′W, then at 1100′ MSL direct 29°15′N, 82°26′W, then climb to 1500′ MSL direct 29°25′N, 82°08′W, then at 1500′ MSL direct 29°44′N, 82°03′W, then at 1500′ MSL direct 30°01′N, 82°26′W, then at 1500′ MSL direct 30°45′N, 82°27′W, then at 1500′ MSL direct 31°03′N, 82°09′W, then climb to 1700′ MSL direct 31°32′N, 81°59′W, then descend to 1600′ MSL direct 32°13′N, 82°00′W, then climb to 2000′ MSL direct 32°30′N, 81°09′W, then descend to 1500′ MSL direct 32°55′N, 80°55′W, then at 1500′ MSL direct 33°19′N, 80°02′W. then at 1500′ MSL direct 34°13′N, 80°03′W, then climb to 1900′ MSL direct 34°37′N, 80°34′W, then at 1900′ MSL direct 35°00′N, 80°22′W, then descend to 1400′ MSL direct 35°09′N, 79°47′30″W, then at 1400′ MSL direct 34°56′N, 79°35′W, then at 1400′ MSL direct 34°55′30″N, 79°15′30″W, then at 1400′ MSL direct 34°21′N, 79°07′W, then climb to 1500′ MSL direct 34°22′N, 78°23′W, then at 1500′ MSL direct 34°58′N, 78°11′W. then at 1500′ MSL direct 35°11′N, 78°23′W, then climb to 1600′ MSL direct 35°28′N, 78°33′W. then at 1600′ MSL direct 35°34′N, 79°11′W, then climb to 1800′ MSL direct 35°16′N, 79°36′W, then at 1800′ MSL direct to route exit point 35°08′N, 80°10′W, then at 1800′ MSL direct 35°05′30″N, 80°19′W, then turn left climbing to FL 190 direct Florence, S.C. VORTAC. When passing 35°00′N, 80°22′W and 35°05′30″N, 80°19′W, pilot will report "CHUCKWAGON 304" to Charlotte approach control on 257.8 MC.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 28°42′30″N, 87°51′W to 35°08′N, 80°10′W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 4 NM either side of centerline from 28°42′30″N, 87°51′W to 28°52′N, 82°53′W and 2 NM either side of centerline from 28°52′N, 82°53′W to 35°08′N, 80°10′W.

Hours of Operation—0000Z to 1200Z one day each week.


EXIT POINT 35°08′ 80°10′
Liberty (LIB)
Raleigh-Durham (RDU)
Pinehurst (SOP)
Fayetteville (FAY)
Fort Mill (FML)
Chesterfield (CTF)
Florence
Wilmington (ILM)
Toccoa (TOC)
Anderson (SC) (AND)
Greenwood (SC) (GRD)
Columbia (SC) (CAE)
Norcross (OCR)
Athens (Ga) (AHN)
Augusta (Ga) (AGS)
Vance (VAN)
Myrtle Beach (CRE)
Rex (REG)
Atlanta (ATL)
Allendale (ALD)
Charleston (SC) (CHS)
Macon (Ga) (MCN)
Dublin (DBN)
Columbus (Ga) (CSG)
Savannah (SAV)
Eufaula (EUF)
Vienna (VNA)
Albany (Ga) (ABY)
Alma (AMG)
Waycross (AYS)
Brunswick (SSI)
Marianna (MAI)
Greenville (GEF)
Taylor (TAY)
Tallahassee (TLH)
Jacksonville (Fla) (JAX)
ATLANTIC OCEAN
New Orleans (MSY)
Harvey (HRV)
Tibby (TBD)
Grand Isle (GNI)
GULF OF MEXICO
Cross City (CTY)
Gainesville (GNV)
Daytona Beach (DAB)
Ocala (OCF)
CHUCKWAGON 304 ENTRY POINT 28°42′30″ 87°51′00″
Orlando (ORL)
Lakeland (LAL)
St Petersburg (PIE)
Vero Beach (VRB)
0 10 20 30 40 50
10 NOV 1966

MILITARY AERIAL REFUELING TRACKS

Effective February 7, 1966

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak.,	GSG 072/88		FSD 003/67.
	Iowa. Minn.	MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak.,	GSG 092/77		FSD 346/42.
	Iowa. Minn.	MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N.	FAR 225/42		SAW 242/39.
	Dak., S. Dak.	SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N.	ABR 038/37		SAW 219/62.
	Dak., S. Dak.	SAW 151/64		FAR 137/65.
AR-110 Advance	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
		LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
AR-307 Big Fish	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
AR-308 Blue Cross	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
● AR-316 Milford	Nev., Utah	MLF 197/100	MLF VORTAC	MLF 235/32
● AR-317 Canyon	Nev., Ariz	Las 184/56	PGS VORTAC	PGS 321/21
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription on request to the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Md. 20852 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section II-A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B-52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,300' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL; to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

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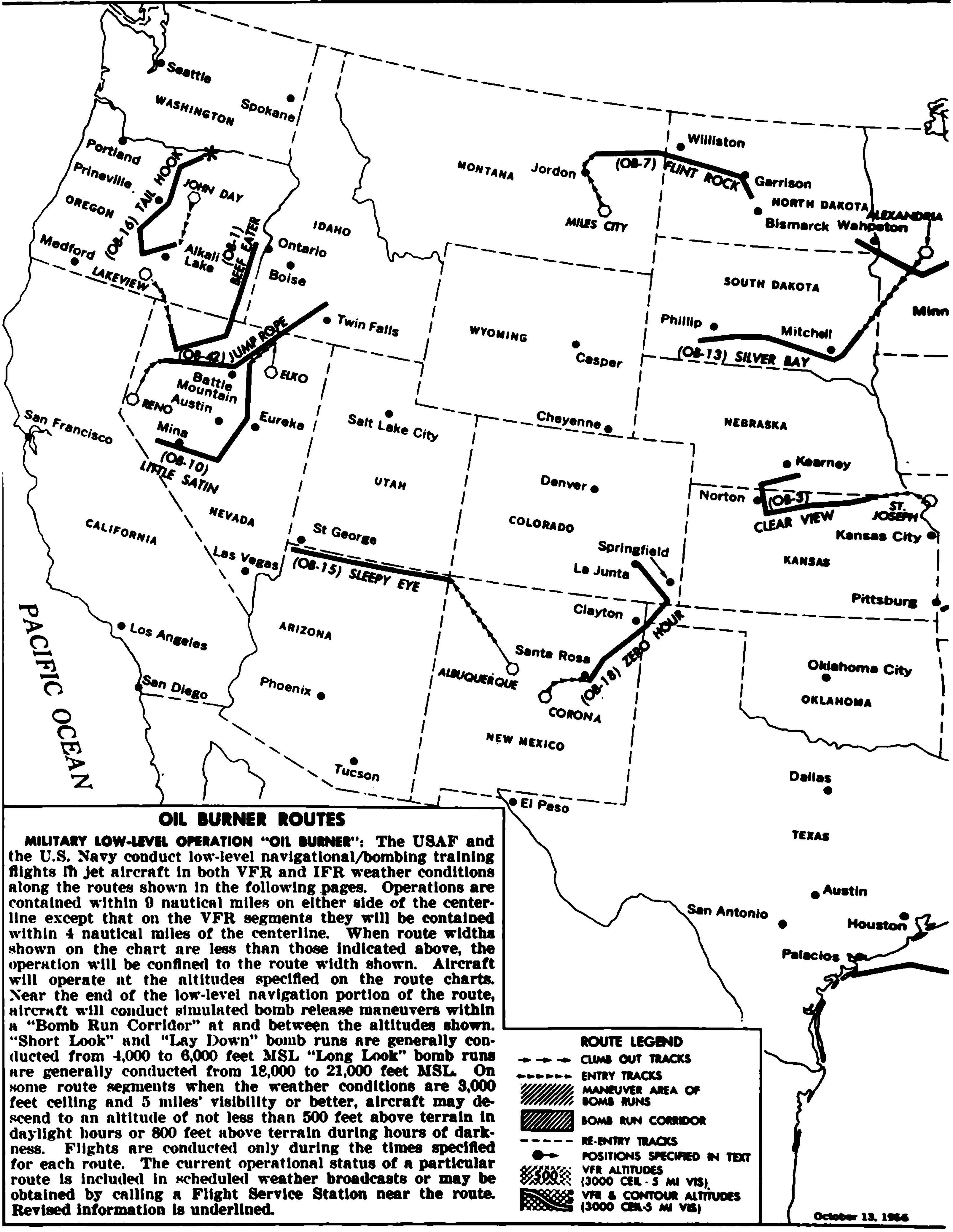
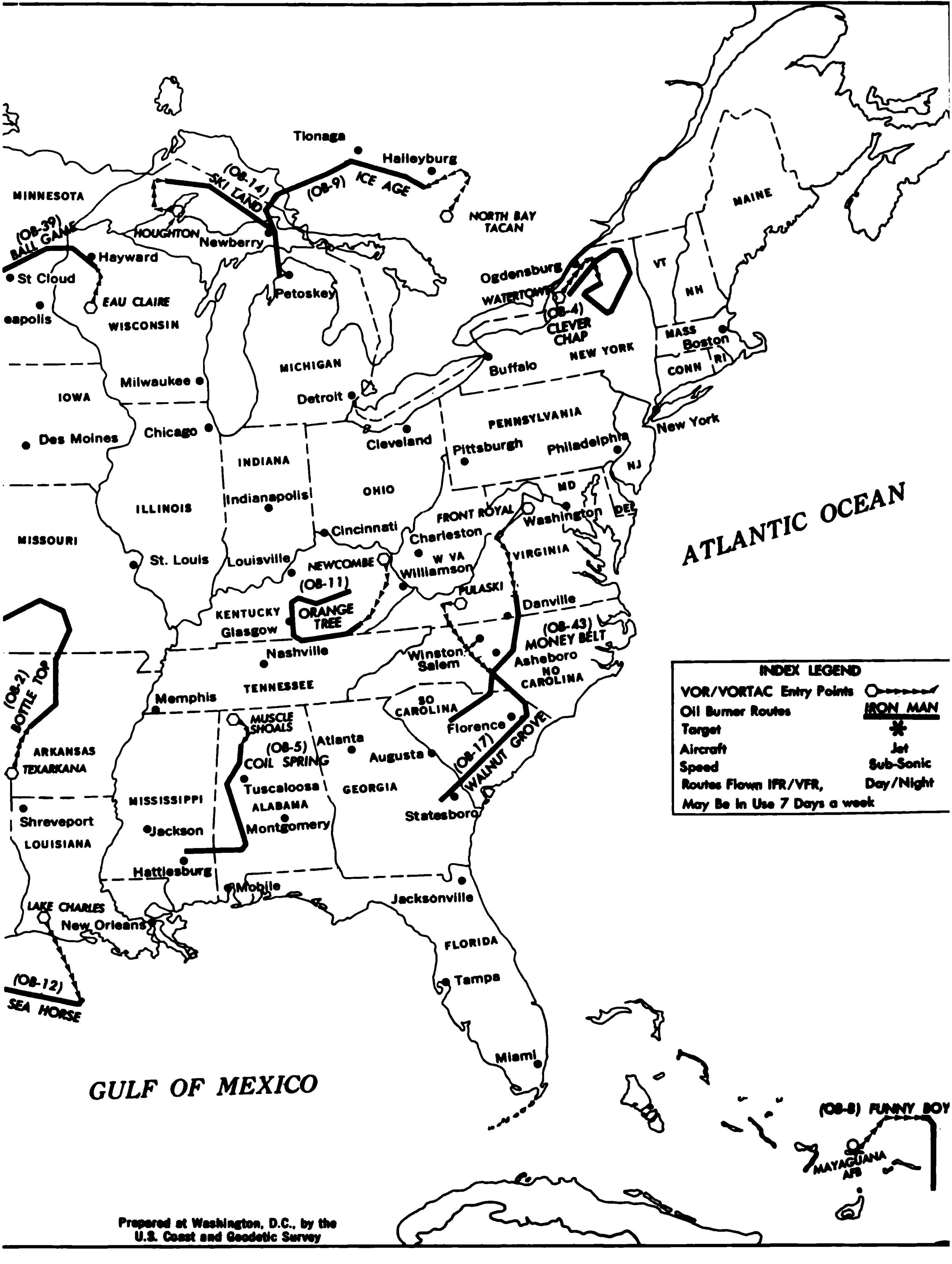

Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
LAKEVIEW
(OB-1) BEEF EATER
Ontario
Boise
IDAHO
Twin Falls
(OB-42) JUMP ROPE
ELKO
Battle Mountain
Austin
RENO
Mina
Eureka
(OB-10) LITTLE SATIN
San Francisco
NEVADA
CALIFORNIA
Las Vegas
Los Angeles
San Diego
PACIFIC OCEAN
MONTANA
Jordon
(OB-7) FLINT ROCK
MILES CITY
Williston
Garrison
NORTH DAKOTA
Bismarck
Wahpeton
ALEXANDRIA
Minn
SOUTH DAKOTA
Phillip
Mitchell
(OB-13) SILVER BAY
WYOMING
Casper
Cheyenne
Salt Lake City
UTAH
St George
(OB-15) SLEEPY EYE
ARIZONA
Phoenix
Tucson
NEBRASKA
Kearney
Norton
(OB-3) CLEAR VIEW
ST. JOSEPH
Kansas City
KANSAS
Pittsburg
Denver
COLORADO
Springfield
La Junta
Clayton
(OB-18) ZERO HOUR
Santa Rosa
ALBUQUERQUE
CORONA
NEW MEXICO
El Paso
Oklahoma City
OKLAHOMA
Dallas
TEXAS
Austin
San Antonio
Houston
Palacios
ROUTE LEGEND
CLIMB OUT TRACKS
ENTRY TRACKS
MANEUVER AREA OF BOMB RUNS
BOMB RUN CORRIDOR
RE-ENTRY TRACKS
POSITIONS SPECIFIED IN TEXT
500
VFR ALTITUDES (3000 CEIL - 5 MI VIS)
VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)
October 13, 1966

OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

INDEX OF OIL BURNER ROUTES


Tionaga
Haileybury
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
MINNESOTA
(OB-39) BALL GAME
HOUGHTON
Newberry
Hayward
St Cloud
Petoskey
EAU CLAIRE
eapolis
WISCONSIN
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
VT
NH
MAINE
MASS
Boston
CONN
RI
NEW YORK
Buffalo
IOWA
Milwaukee
MICHIGAN
Detroit
Des Moines
Chicago
INDIANA
Cleveland
PENNSYLVANIA
Pittsburgh
Philadelphia
New York
NJ
ILLINOIS
Indianapolis
OHIO
MD
DEL
FRONT ROYAL
Washington
MISSOURI
Cincinnati
Charleston
W VA
VIRGINIA
St. Louis
Louisville
NEWCOMBE
Williamson
(OB-11) ORANGE TREE
PULASKI
Danville
KENTUCKY
Glasgow
(OB-43) MONEY BELT
Nashville
Winston-Salem
Asheboro
NO CAROLINA
(OB-2) BOTTLE TOP
TENNESSEE
Memphis
SO CAROLINA
Florence
MUSCLE SHOALS
(OB-5) COIL SPRING
Atlanta
Augusta
(OB-17) WALNUT GROVE
ARKANSAS
TEXARKANA
Tuscaloosa
GEORGIA
MISSISSIPPI
ALABAMA
Statesboro
Shreveport
LOUISIANA
Jackson
Montgomery
Hattiesburg
Mobile
Jacksonville
LAKE CHARLES
New Orleans
FLORIDA
(OB-12) SEA HORSE
Tampa
ATLANTIC OCEAN
GULF OF MEXICO
Miami
(OB-8) FUNNY BOY
MAYAGUANA AFB
INDEX LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes IRON MAN
Target ✱
Aircraft Jet
Speed Sub-Sonic
Routes Flown IFR/VFR, Day/Night
May Be In Use 7 Days a week

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

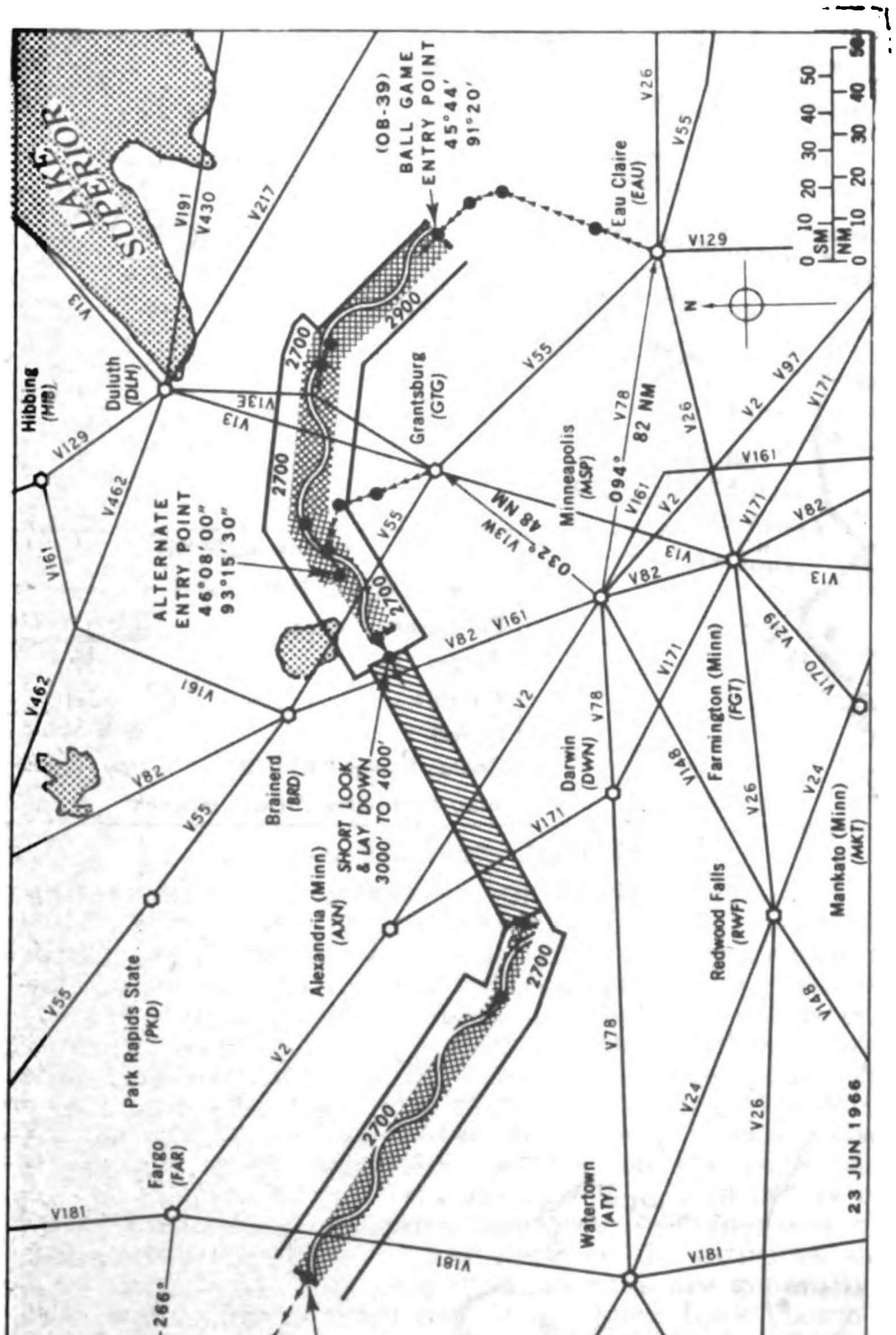
OIL BURNER ROUTES

MINNESOTA/NORTH DAKOTA/SOUTH DAKOTA/ WISCONSIN

• BALL GAME OB–39

Effective August 1, 1966 thru January 21, 1967

Aircraft shall cross Minneapolis VORTAC 094/82 DME fix (Eau Claire, Wisc. VOR) at FL 230 or as assigned by ARTCC; then at FL 230 or assigned altitude direct to 45°08′N, 91°20′W; then start descent so as to cross 45°29′N, 91°07′W at or below 11,000′ MSL; then turn left descending to 45°37′N, 91°10′W; then continue descent direct so as to cross 45°44′N, 91°20′W, the low level entry point, at 2,900′ MSL; then at 2,900′ MSL direct 46°10′N, 91°56′W; then turn left descending so as to cross 46°12′N, 92°02′W at 2,700′ MSL; then at 2,700′ MSL direct to 46°16′30″N, 92°56′W; then at 2,700′ MSL direct to 46°00′N, 93°35′30″W then climb so as to cross 45°57′N, 93°42′W at 3,000′ MSL.


LAKE SUPERIOR
Hibbing (HIB)
Duluth (DLH)
V191
V430
V217
V13
V129
V462
V161
ALTERNATE ENTRY POINT 46°08′00″ 93°15′30″
(OB-39) BALL GAME ENTRY POINT 45°44′ 91°20′
Eau Claire (EAU)
V129
V55
V26
Grantsburg (GTG)
2900
2700
Minneapolis (MSP)
094° 82 NM
032° 48 NM
V78
V97
V171
V161
V82
V13
V2
V148
V218
V510
Brainerd (BRD)
Alexandria (Minn) (AXN)
SHORT LOOK & LAY DOWN 3000′ TO 4000′
Darwin (DWN)
Farmington (Minn) (FGT)
Redwood Falls (RWF)
Mankato (Minn) (MKT)
V24
V148
Park Rapids State (PKD)
Fargo (FAR)
V181
266° 76 NM
Jamestown (JMS)
EXIT POINT 46°13′ 97°13′
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
V15
V120
V181
0 10 20 30 40 50 NM
0 10 20 30 40 50 SM
23 JUN 1966

Short Look and Lay Down—After passing 45°57′N, 93°-42′W, aircraft shall operate between 3,000′ MSL and 4,000′ MSL through the bomb run corridor (4 NM either side of centerline from 45°57′N, 93°42′W to 45°25′N, 95°-10′W). After exiting the bomb run corridor at 45°25′W, 95°10′W, aircraft shall descend direct so as to cross 45°31′N, 95°36′W at 2,700′ MSL; then at 2,700′ MSL direct 46°13′N, 97°13′W. After exiting the route at 46°-13′N, 97°13′W, aircraft shall start climb so as to cross 46°39′N, 98°12′W at FL 200 or above; then climb direct so as to cross Fargo, N.D. VORTAC DME 266/76 fix (Jamestown, N.D. VOR) at FL 250.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800′ above the immediate terrain between the following points: From 45°44′N, 91°20′W to 46°00′N, 93°-35′30″W and from 45°25′N, 95°10′W to 46°13′N, 97°13′ W.

Alternate Entry—Aircraft shall cross the Minneapolis VORTAC 032/48 DME fix (Grantsburg, Wisc. VOR) at FL 230 or as assigned by ARTCC, then descend so as to cross 46°00′N, 92°47′30″W at 17,000′ MSL or above; then continue descent direct so as to cross 46°08′N, 92°51′30″W at 13,000′ MSL or above; then turn left continuing descent so as to cross 46°12′N, 93°06′W at 7,000′ MSL; then continue descent so as to cross 46°08′ N, 93°15′30″W at 2,700′ MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM on the northeast side of centerline from 45°44′N, 91°-20′W to 46°10′N, 91°56′W and 4 NM either side of centerline from 45°57′N, 93°42′W to 45°25′N 95°10′W and 4 NM on the north side of centerline from 45°25′N, 95°10′W to 45°31′N, 95°36′W. The VFR route width is reduced to 2 NM on the northwest side of centerline from 46°08′N, 93°15′30″W to 46°00′N, 93°35′30″W and to 2 NM on the north side of centerline from 45°25′N, 95°10′W to 45°35′N, 95°45′W and to 2 NM on the south side of centerline from 45°25′N, 95°10′W to 46°13′N, 97°13′W.

Hours of Operation—24 hours daily, 7 days a week.

Effective November 20, 1966, add:

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 45°25′N, 95°10′W; turn right and climb to 5000′ MSL direct to 45°38′N, 95°17′W; then at 5000′ MSL direct to 45°45′N, 93°33′W; then turn left descend to 3000′ MSL direct to 45°57′N, 93°42′W; thence via the published route.

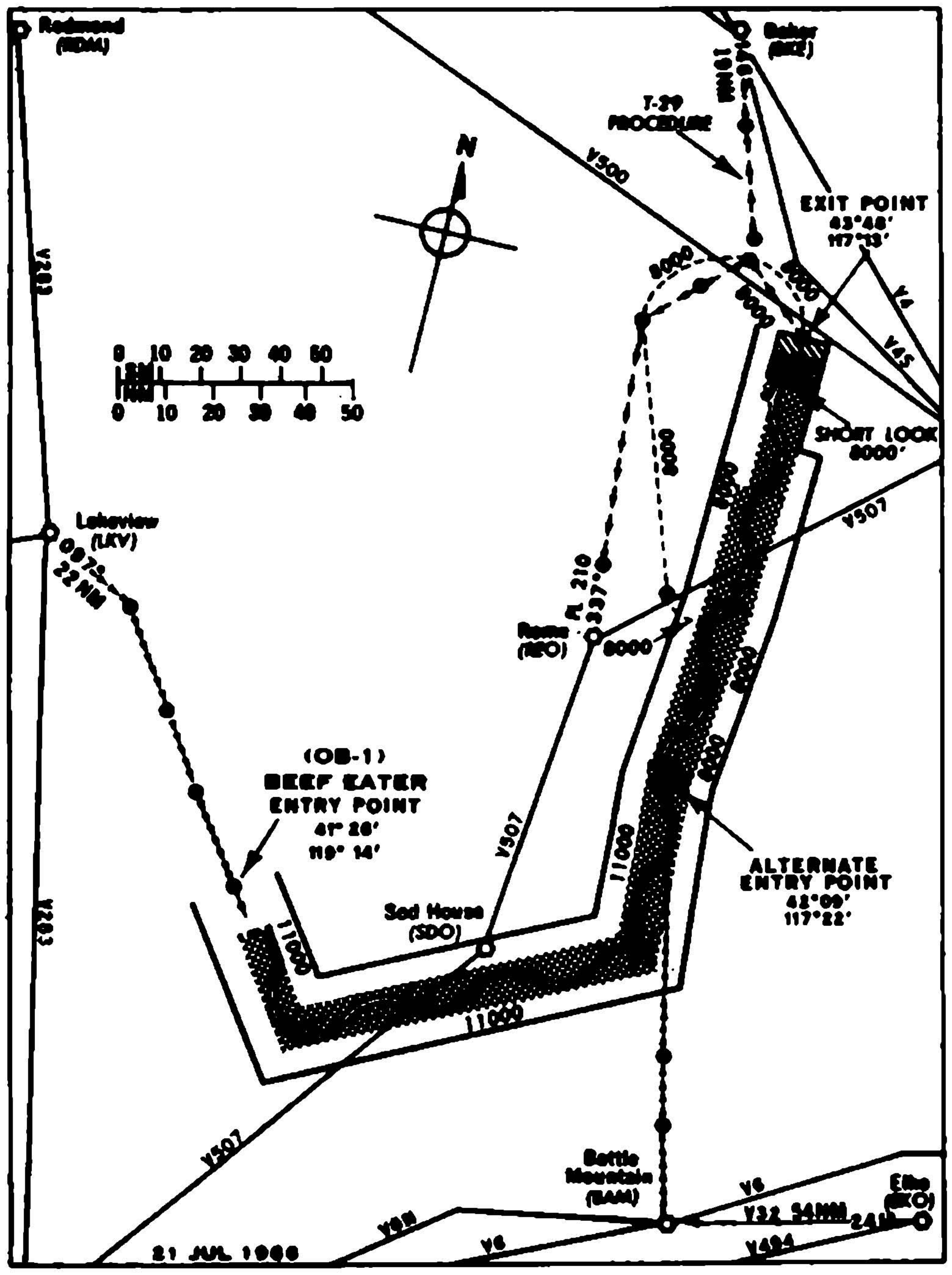
NEVADA/OREGON

BEEF EATER OB–1

Revised Effective June 19, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC;

then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°-20'N, 120°04'W); then descend direct to cross 42°00'N, 119°45'W at or below FL 230; then descend direct so as to cross 41°44'N, 119°31'W at or above 16,000' MSL; then descend direct so as to cross the entry point of the low level route at 41°26'N, 119°14'W at 11,000' MSL; then at 11,000' MSL direct to 40°58'N, 118°49'W, then 11,000' MSL direct 41°31'N, 117°20'W, 11,000' MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40' N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°-59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 210, then maintain FL 210 via the Rome, Oregon 337 radial to the Rome, Oregon VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°-31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°17'N, 119°06'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W then descend direct so as to cross 41°10'N, 117°05'W at or above 12,000' MSL; then descend direct so as to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 3 NM on the west side of centerline from 41°17'N, 119°06'W to 40°58'N, 118°49'W and to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T-29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

BOTTLE TOP OB-2

Revised Effective April 24, 1966

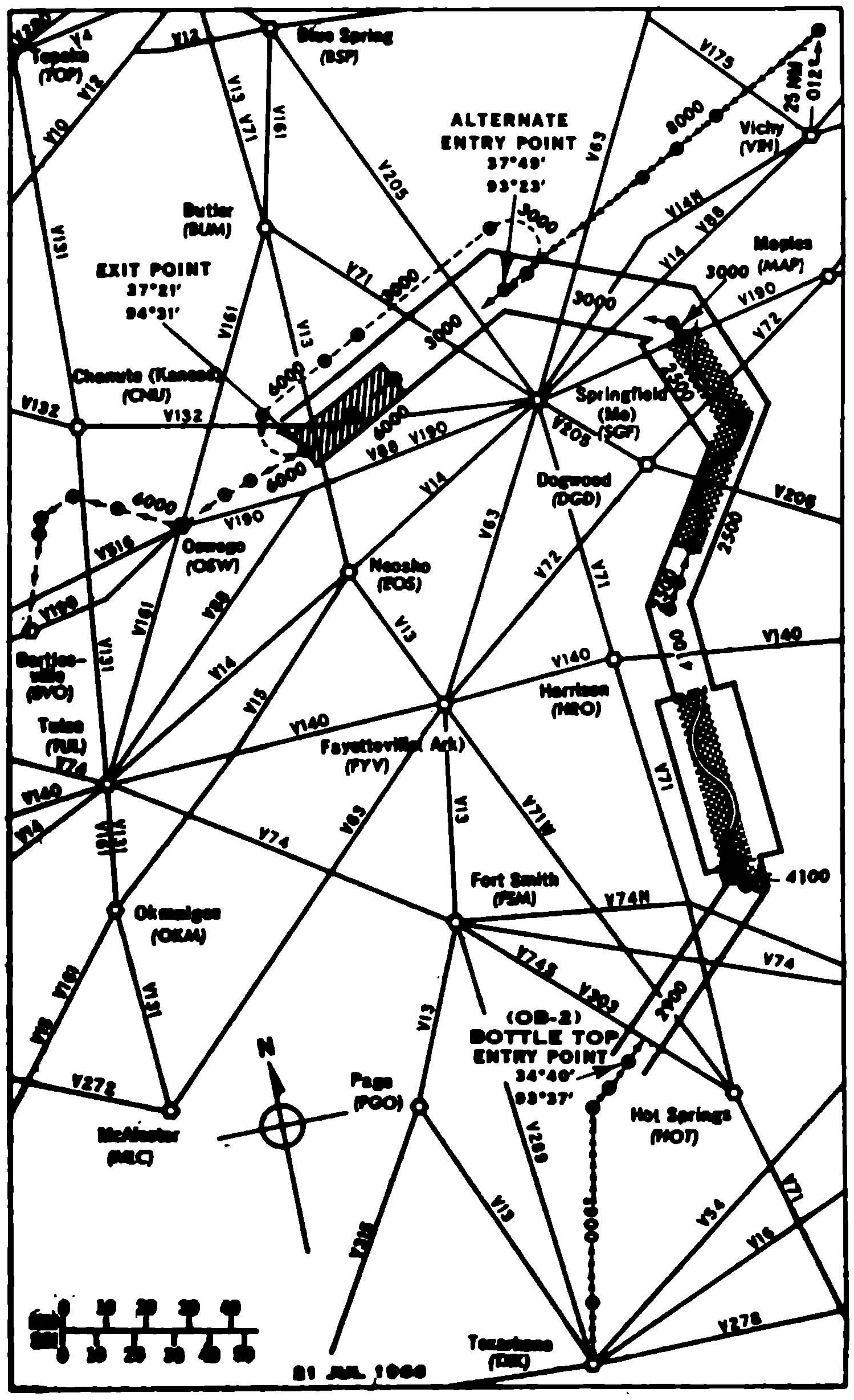
Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°-51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°-01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°-31'W, maintain 6000' MSL, turn right to 37°32'N, 94°-41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30"N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 92°34'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ARTCC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34"W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.


Topeka (TOP)
Blue Spring (BSP)
ALTERNATE ENTRY POINT 37°49' 93°23'
Vichy (VIH)
25 NM 012°
Butler (BUM)
EXIT POINT 37°21' 94°31'
Chanute (Kansas) (CNU)
Maples (MAP)
Springfield (Mo) (SGF)
Dogwood (DGD)
Oswego (OSW)
Neosho (EOS)
Bartlesville (BVO)
Tulsa (TUL)
Fayetteville (Ark) (FYV)
Harrison (HRO)
Fort Smith (FSM)
Okmulgee (OKM)
(OB-2) BOTTLE TOP ENTRY POINT 34°40' 93°37'
Hot Springs (HOT)
Page (PGO)
McAlester (MLC)
N
Texarkana (TXK)
31 JUL 1966
8000
3000
4000
4100
2500
2700

Route Width—The IFR route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°06'N, 92°23'W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W. The VFR route width from 35°21'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°06'N, 92°23'W is reduced to 2 NM on the east side of centerline.

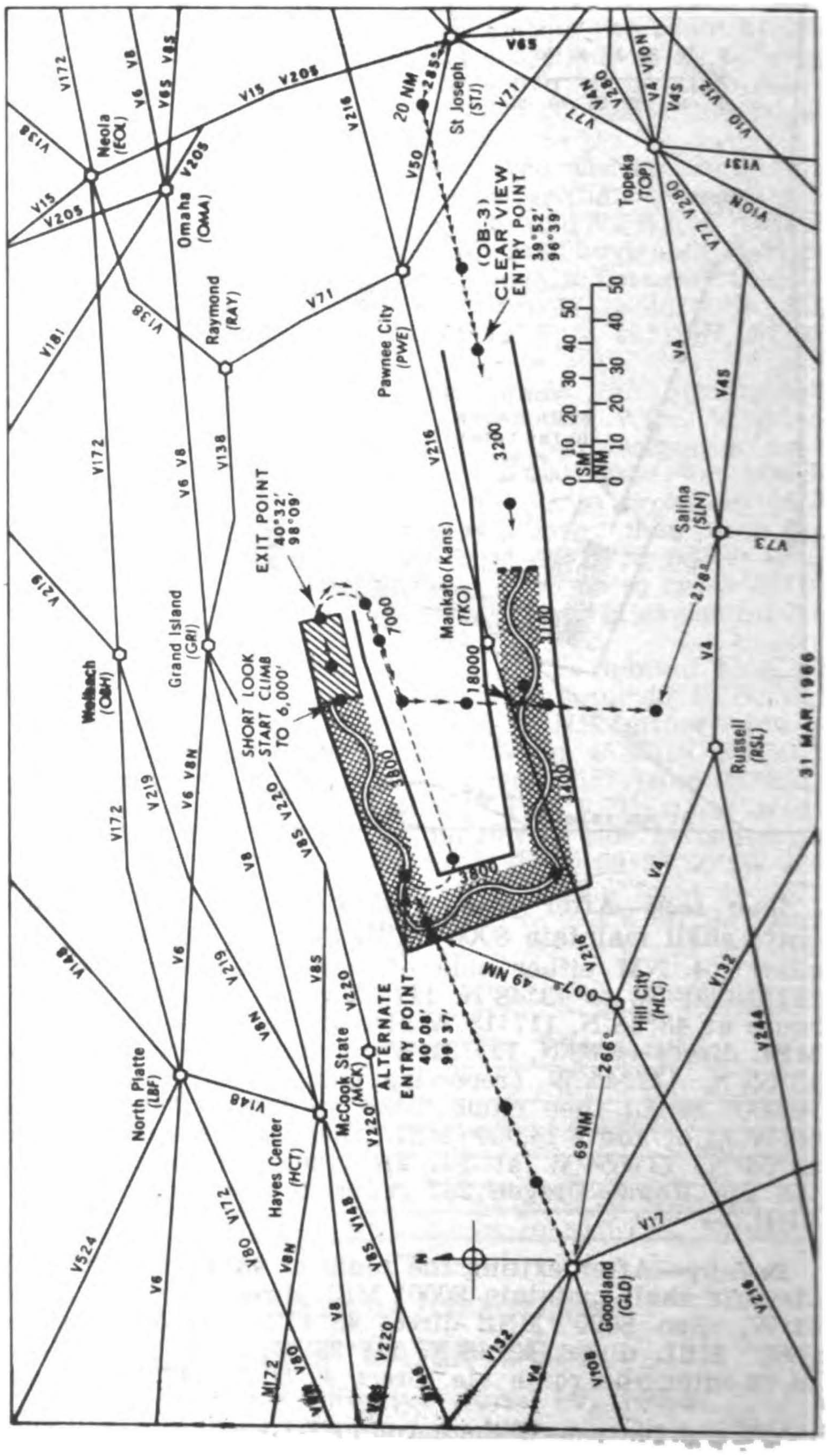
Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB-3

Revised Effective March 27, 1966

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL


St Joseph (STJ)
20 NM
285°
(OB-3) CLEAR VIEW ENTRY POINT 39°52' 96°39'
Topeka (TOP)
Neola (EOL)
Omaha (OMA)
Raymond (RAY)
Pawnee City (PWE)
Salina (SLN)
EXIT POINT 40°32' 98°09'
Grand Island (GRI)
Mankato (Kans) (TKO)
SHORT LOOK START CLIMB TO 6,000'
Wolbach (OBH)
Russell (RSL)
ALTERNATE ENTRY POINT 40°08' 99°37'
McCook State (MCK)
Hill City (HCT)
North Platte (LBF)
Hayes Center (HCT)
Goodland (GLD)
69 NM
3200
3100
3400
3800
7000
18000
N
31 MAR 1966

direct 40°03'N, 99°50'W maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (4 NM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.

Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

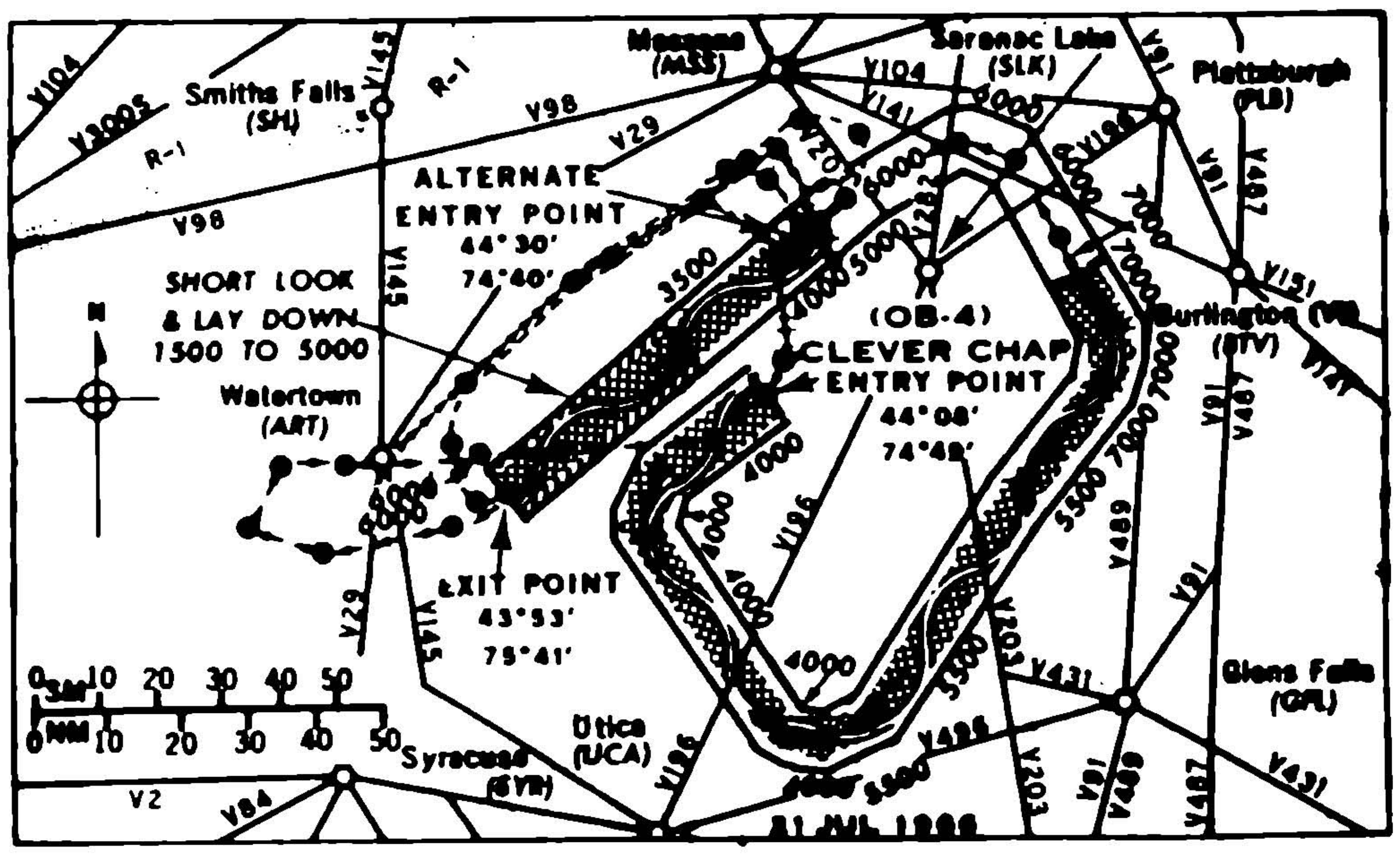
Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

• CLEVER CHAP OB-4

Revised Effective November 10, 1966

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below; cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13'N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17'N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W: climb to cross 43°59'N, 73°51'W at 7,000 feet MSL: maintain 7,000 feet MSL (ctc BTV apch ctl) direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL;



cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.

Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43'N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at FL 180; cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR

contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48'N, 75°12'W to 44°16'N, 73°39'W 2 NM either side of center line.

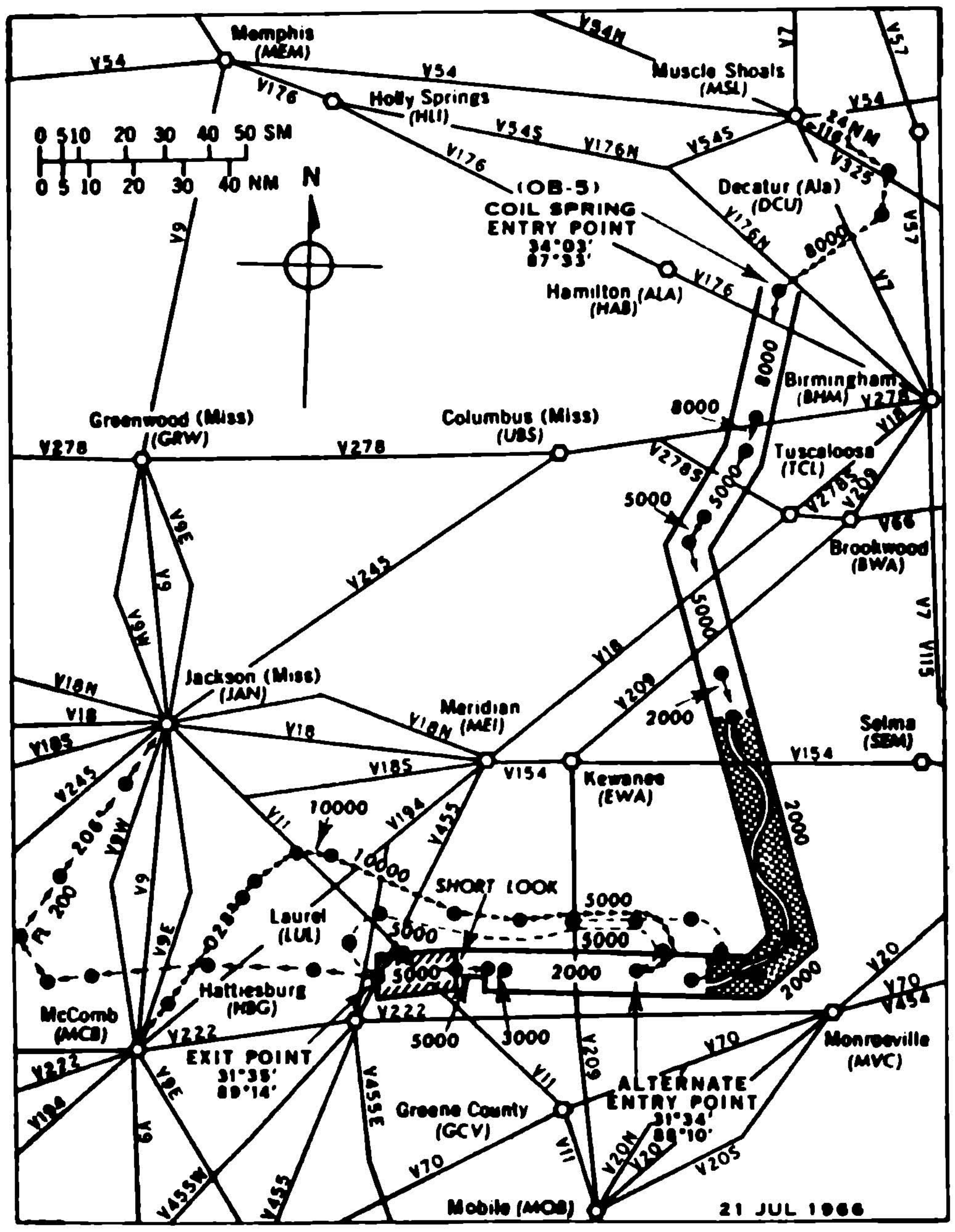
Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB–5

Revised Effective January 6, 1966

Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000' MSL; turn right, descend to cross 34°19'N, 87°06'W at 8000' MSL, maintain 8000' MSL direct to the route entry point at 34°03'N, 87°33'W, direct 33°-35'N, 87°38'W, direct 33°28'N, 87°42'W; descend direct to cross 33°15'N, 87°52'W at 5000' MSL, maintain 5000' MSL direct 33°10'N, 87°56'W, direct 32°40'N, 87°48'W; descend to cross 32°31'N, 87°45'W at 2000' MSL, maintain 2000' MSL direct 31°41'N, 87°31'W, turn right to 31°33'N, 87°40'W, maintain 2000' MSL direct 31°36'N, 88°42'W; climb direct to cross 31°36'N, 88°46'W at 3000' MSL, direct to cross 31°36'N, 88°54'30"W at 5000' MSL. In addition to the above, aircraft may climb to 3000' MSL after 31°33'N, 87°40'W and maintain 3000' MSL to 31°36'N, 88°54'30" during the hours 0600Z–1200Z.



Short Look—After passing 31°36'N, 88°54'30"W aircraft shall operate through the bomb run corridor at 5000' MSL. In addition, aircraft may operate through the bomb run corridor at 3000' MSL during the hours 0600Z–1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36'N, 88°54'30"W to 31°35'N, 89°14'W.) After exiting the route at 31°35'N, 89°14'W, aircraft shall cross 31°36'N, 89°30'W at 5000' MSL; start climb direct to cross 31°37'N, 89°56'W at 14,000' MSL (reporting point), maintain 14,000' MSL direct 31°33'N, 90°25'W; start climb direct 31°32'N, 90°36'W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42'N, 90°44'W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55'N, 90°35'W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35'N, 89°14'W, turn right, cross 31°42'N, 89°22'W at 5000' MSL, maintain 5000' MSL, turn right to 31°49'N, 89°-14'W, direct 31°48'N, 88°27'W; direct 31°48'N, 88°10'W; turn right, cross 31°40'N, 88°03'W at 3000' MSL; continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route. Aircraft may proceed at 5000' MSL from 31°48'N, 88°27'W; direct 31°48'N, 87°57'W; turn right descend to cross 31°41'N, 87°49'W at 3000' MSL; continue turn to cross 31°34'N, 87°57'W at 2000' MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 32°31'N, 87°45'W to 31°33'N, 87°52'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18'15"N, 90°15'29"W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000' MSL; cross 45 NM fix at 14,000' MSL; turn right, cross 32°01'N, 89°35'W at 10,000' MSL, maintain 10,000' MSL, turn right, 32°01'N, 89°27'W, direct 31°49'N, 88°55'W; descend direct, cross 31°48'N, 88°39'W at 6000' MSL; direct, cross 31°48'N, 88°27'W at 5000' MSL, maintain 5000' MSL direct 31°48'N, 88°10'W; turn right cross 31°40'N, 88°03'W at 3000' MSL continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36'N, 88°46'W to 31°36'N, 88°54'30"W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

FLINT ROCK OB–7

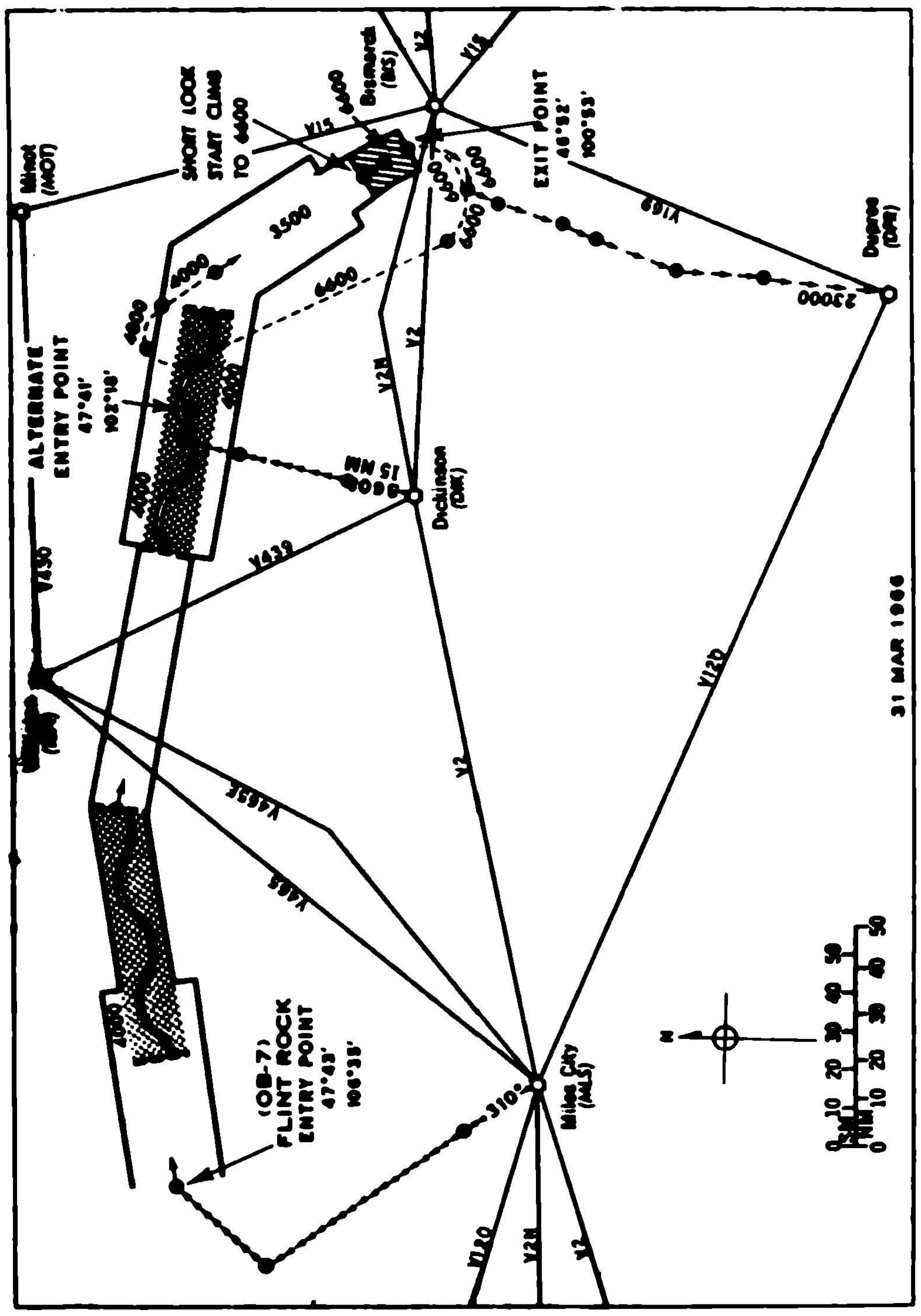
Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40'N, 106°14'W; then descend to cross 47°24'N, 107°00'W at or above 6000' MSL; then continue descent so as to cross the route entry point, 47°43'N, 106°35'W, at 4000' MSL; then at 4000' MSL direct 47°57'N, 104°30'W; then at 4000' MSL direct 47°35'N, 101°31'W; then descend to 3500' MSL direct 47°02'N, 101°02'W.

Short Look—After passing 47°02'N, 101°02'W aircraft shall climb so as to cross 46°56'N, 100°56'W at 6600' MSL; then at 6600' MSL direct to the exit point 46°52'N, 100°53'W (bomb run corridor 4 NM either side of centerline from 47°02'N, 101°02'W to the exit point 46°52'N.

100°53'W); then maintaining 6600' MSL turn right direct 46°39'N, 101°07'W; then start climb to FL 230 direct to 45°53'N, 101°35'W; direct to Dupree VORTAC, climbing so as to cross 46°30'N, 101°12'30''W at or above 8,000' MSL; crossing 46°19'N, 101°19'W at or above 11,000' MSL; crossing 46°13'N, 101°23'W at or below FL 190; crossing 45°53'N, 101°35'W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52'N, 100°53'W maintain 6600' MSL direct 46°39'N, 101°07'W; then at 6600' MSL make a right turn direct to 46°43'N, 101°24'W; then at 6600' MSL direct 47°40'N, 102°00'W the descending so as to cross 47°50'N, 101°56'W at 4000' MSL; then continue turn direct 47°47'N, 101°42'W; then direct at 4000' MSL to 47°35'N, 101°31'W, thence via the published route.


Minot (MOT)
SHORT LOOK START CLIMB TO 6600
Bismarck (BIS)
V2
V15
V15
6600
EXIT POINT 46°52' 100°53'
3500
4000
4000
6600
6600
6600
ALTERNATE ENTRY POINT 47°41' 102°18'
2000
2000
15 NM
6600
Dickinson (DIK)
V2R
V2
V169
23000
Dupree (DPR)
V430
V439
V491E
V491
V120
2000
(OB-7) FLINT ROCK ENTRY POINT 47°43' 106°25'
310°
Miles City (MLS)
V120
V2R
V2
N
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
31 MAR 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 47°48'N, 105°53'W to 47°57'N, 104°30'W and from 47°47'N, 103°03'W to 47°37'N, 101°45'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000' MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000' MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31'N, 102°32'W at 8,000' MSL; then descend direct so as to cross 47°42'30''N, 102°27'W at 6,000' MSL; then a descending right turn so as to cross 47°41'N, 102°18'W at 4000' MSL, thence via the published route.

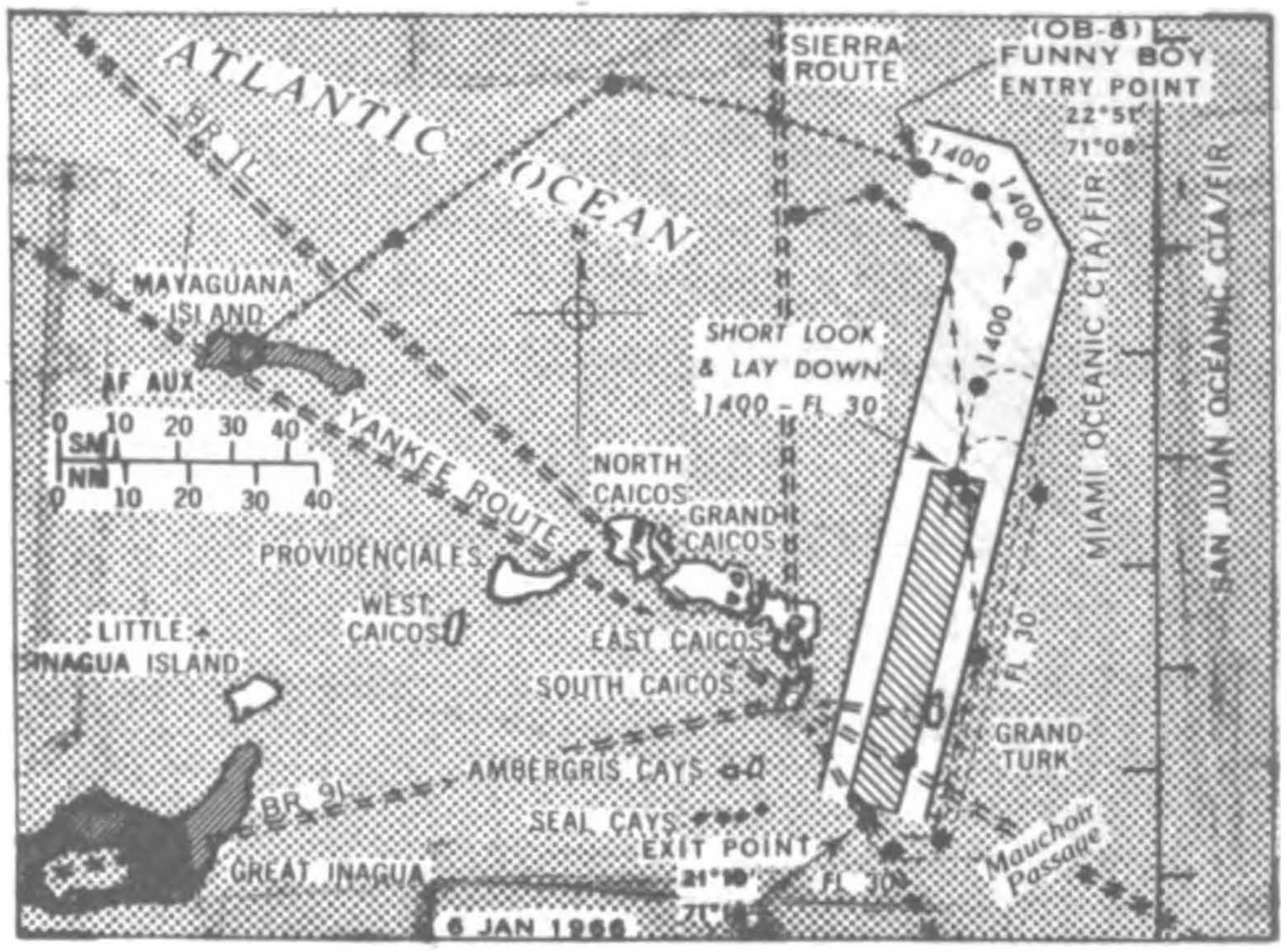
Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50'N, 105°30'W to 47°47'N, 103°03'W and from 47°07'N, 101°06'W to 46°52'N, 100°53'W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY OB-8

Revised Effective February 6, 1966

Aircraft shall cross 22°23'N, 73°02'W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41'N, 72°35'W (reporting point); start descent, cross 23°05'N, 72°00'W at FL 150; right turn, cross 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 71°08'W at 1400' MSL (the route entry point); maintain 1400' MSL direct 22°48'N, 70°58'W; turn right to 22°39'N, 70°53'W; direct 22°04'N, 71°03'W.


ATLANTIC OCEAN
BR 91
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°51' 71°08'
1400
1400
1400
MAYAGUANA ISLAND
AF AUX
SHORT LOOK & LAY DOWN 1400 - FL 30
SM 0 10 20 30 40
NM 0 10 20 30 40
YANKEE ROUTE
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
LITTLE INAGUA ISLAND
EAST CAICOS
SOUTH CAICOS
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR
FL 30
GRAND TURK
AMBERGRIS CAYS
BR 91
SEAL CAYS
EXIT POINT 21°10' 71°18'
FL 30
Mouchoir Passage
GREAT INAGUA
6 JAN 1966

Short Look and Lay Down—After passing 22°04'N, 71°03'W, aircraft shall maintain between 1400' and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04'N, 71°03'W to 21°10'N, 71°18'W). After exiting the route at 21°10'N, 71°18'W, aircraft shall turn left, cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W, direct 21°35'N, 71°00'W; start climb, cross 22°00'N, 71°02'W at FL 110 or above cross 22°40'N, 71°06'W at FL 250 or above; left turn to 22°48'N, 71°16'W; cross 22°45'N, 71°30'W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10'N, 71°18'W, turn left cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W; direct 22°01'N, 70°53'W; turn left descend to cross 22°04'N, 71°03'W at 1400'; thence via the published route. Aircraft may proceed at FL 30 from 21°06'N, 71°08'W; direct 22°14'N, 70°49'W; turn left descend to cross 22°17'N, 70°59'W at 1400'; thence via the published route.

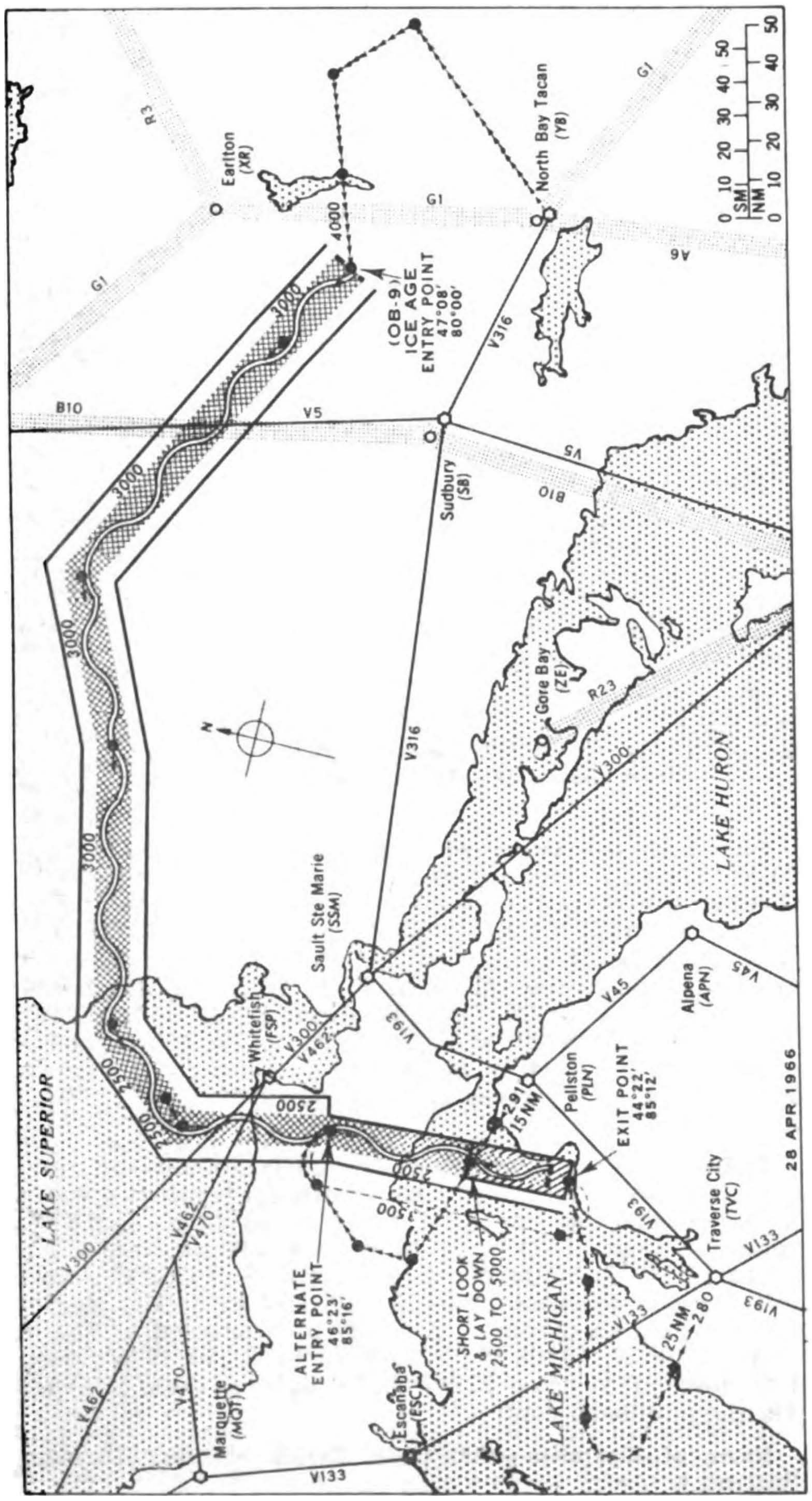
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB–9

Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°-04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°-25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.



Short Look and Lay Down—After passing 45°48′N, 85°-15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°-12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°-37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: from 47°08′N, 80°00′W to 45°27′N, 85°13′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

IDAHO/NEVADA

• JUMP ROPE OB–42

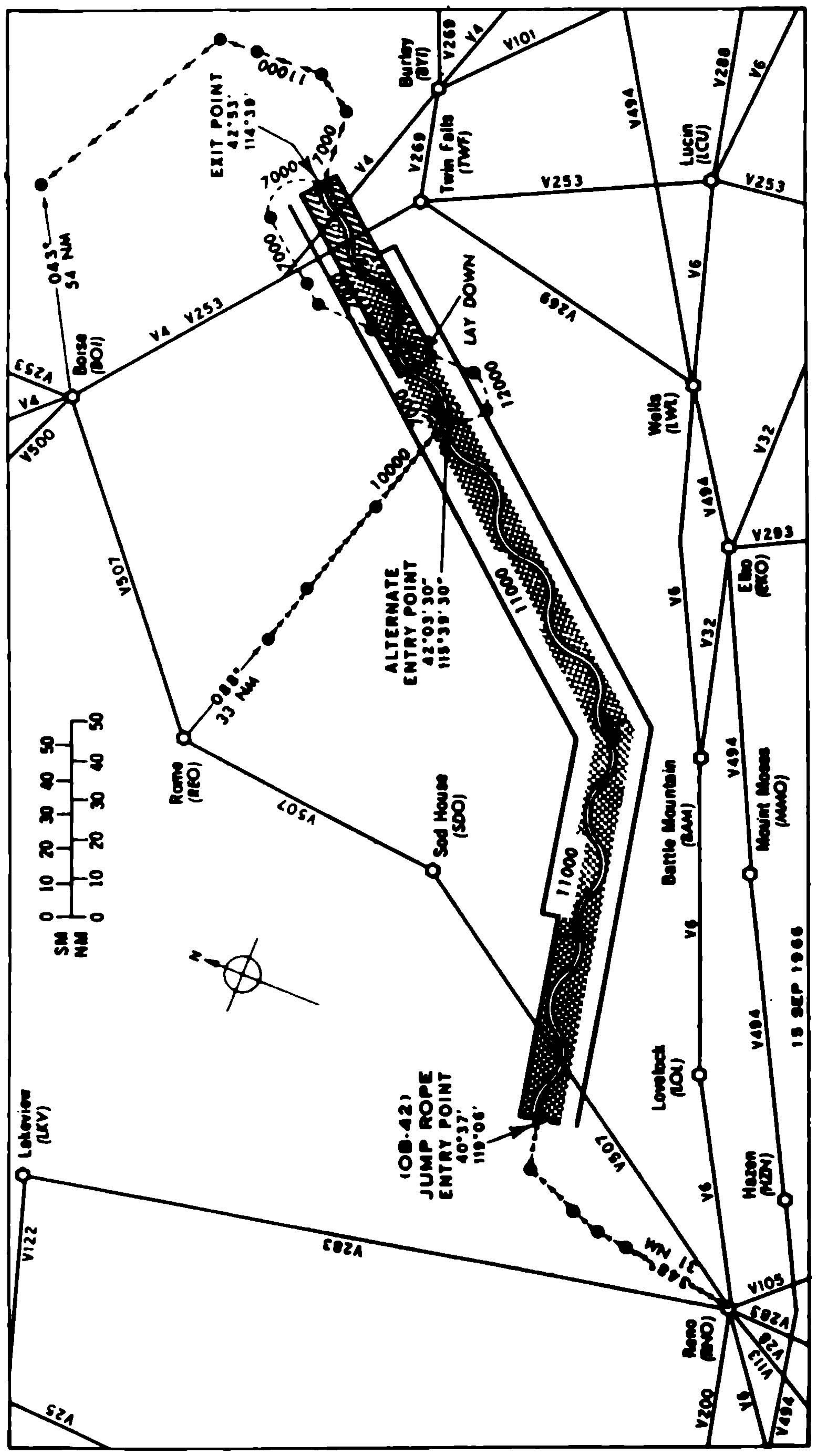
Effective October 10, 1966 thru March 25, 1967

Aircraft shall cross the Reno, Nevada, VORTAC at FL 230 or as assigned by ARTCC; then at FL 230, or assigned altitude, proceed via the 348° radial of the Reno, Nevada, VORTAC until 31 nautical miles north (40°03′N, 119°35′W); then descend direct to 40°12′N, 119°34′W; then continue descent direct so as to cross 40°20′N, 119°30′W at FL180; then continue descent direct so as to cross 40°34′N, 119°23′W at or below 17,000′ MSL; then descend direct so as to cross the low level entry point at 40°37′N, 119°06′W at 11,000′ MSL; then at 11,000′ MSL direct to 40°56′N, 116°59′W; then at 11,000′ MSL direct to 42°03′30″N, 115°39′30″W; then descend so as to cross the entry to the bomb run corridor at 42°17′N, 115°23′W at 7,000′ MSL.

Lay Down—After passing 42°17′N, 115°23′W, aircraft shall maintain 7,000′ MSL through the bomb run corridor (4 nautical miles either side of centerline from 42°17′N, 115°23′W to 42°53′N, 114°39′W). After exiting the route (contact Salt Lake Center as soon as practicable on P125.6 S317.5) at 42°53′N, 114°39′W, aircraft shall turn right maintaining 7,000′ MSL direct to 42°54′N, 114°10′W then turn left climbing so as to cross 43°03′N, 114°-01′W at 11,000′ MSL; then at 11,000′ MSL direct to 43°20′N, 114°01′W; then climb direct to 43°30′N, 114°01′

W; then turn left climbing so as to cross the Boise, Iadho, VORTAC 043° radial 54 nautical mile DME fix at FL 230.

Re-Entry—After completing the initial bomb run, aircraft schedule to execute an additional bomb run shall, after passing 42°53'N, 114°39'W, turn left maintaining 7,000' MSL to 43°02'30''N, 114°53'W (Contact Mtn. Home RAPCON on 259.1 mc); then at 7,000' MSL direct to 42°48'N, 115°11'W; then climb direct so as to cross 42°44'N, 115°16'W at 8,000' MSL; then turn left and climb to 42°30'N, 115°18'30''W; then continue climb direct so as to cross 42°02'N, 115°19'W at 12,000' MSL; then at 12,000' MSL turn right to 41°55'N, 115°30'W; then continue turn and descend so as to cross 42°07'N, 115°35'W at 7,000' MSL; thence via the published route.


EXIT POINT
42°53'
114°39'
11000
7000
7000
7000
043°
54 NM
Boise (BOI)
V4
V253
V500
V507
Burley (BYI)
V269
V4
V101
Twin Falls (TWF)
V253
V494
Lucin (LCU)
V288
V6
V253
V269
LAY DOWN
12000
10000
11000
Wells (LWL)
V6
V32
V494
V293
Elko (EKO)
ALTERNATE
ENTRY POINT
42°03'30"
115°39'30"
088°
33 NM
Rome (REO)
V507
Sod House (SDO)
11000
Battle Mountain (BAM)
V494
Mount Moses (MMO)
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
N
15 SEP 1966
(OB-42)
JUMP ROPE
ENTRY POINT
40°37'
119°06'
Lovelock (LOL)
V6
Hazen (HZN)
V507
348°
31 NM
Lakeview (LKV)
V122
V283
V105
V283
V28
V113
Reno (RNO)
V200
V6
V494
V25

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 40°37'N, 119°06'W to 42°53'N, 114°39'W. VFR operations shall not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Rome, Oregon, VORTAC at FL 230 or as assigned by ARTCC, then at FL 230 or assigned FL, proceed via the 088° radial until 33 nautical miles east (42°25'N, 117°10'W); then descend direct so as to cross 42°20'N, 116°48'W at FL 200; then descend direct so as to cross 42°12'N, 116°14'30''W at 10,000' MSL then at 10,000' MSL direct to 42°03'30''N, 115°39'30''W; thence via the published route.

Route Width—The VFR route width is reduced to 2 nautical miles on the north side of centerline from 40°47'N, 118°00'W to 40°51'N, 117°32'W and from 41°21'N, 116°30'W to 41°37'N, 116°11'W. The VFR route width is reduced to 2 nautical miles on both sides of centerline from 42°37'N, 114°58'W to 42°53'N, 114°39'W. The IFR route width is reduced to 4 nautical miles on the north side of centerline from 40°37'N, 119°06'W to 40°47'N, 118°00'W and to 4 nautical miles on the southeast side of centerline from 42°37'N, 114°58'W to 42°53'N, 114°39'W.

Hours of Operation—24 hours daily, 7 days a week.

Revised Effective November 20, 1966 thru March 25, 1967

Re-Entry paragraph line 3, change to read:

after passing 42°53'N, 114°39'W turn left climbing so as to cross 42°56'N, 114°37'W at 7500' MSL; then at 7500' MSL continue turn to 43°02'30''N, 114°53'W. (Contact Mtn Home RAPCON on 259.1 mc); then at 7500' MSL direct to 42°48'N, 115°11'W; then climb direct so as to cross 42°44'N, 115°16'W at 8,000' MSL; then turn left and climb to 42°30'N, 115°18'30''W; then continue climb direct so as to cross 42°02'N, 115°19'W at 12,000' MSL; then at 12,000' MSL turn right to 41°55'N, 115°30'W; then at 12,000' MSL continue turn to 42°07'N, 115°35'W; then descend direct so as to cross 42°17'N, 115°23'W at 7000' MSL; thence via the published route.

NEVADA

LITTLE SATIN OB–10

Revised Effective January 2, 1966

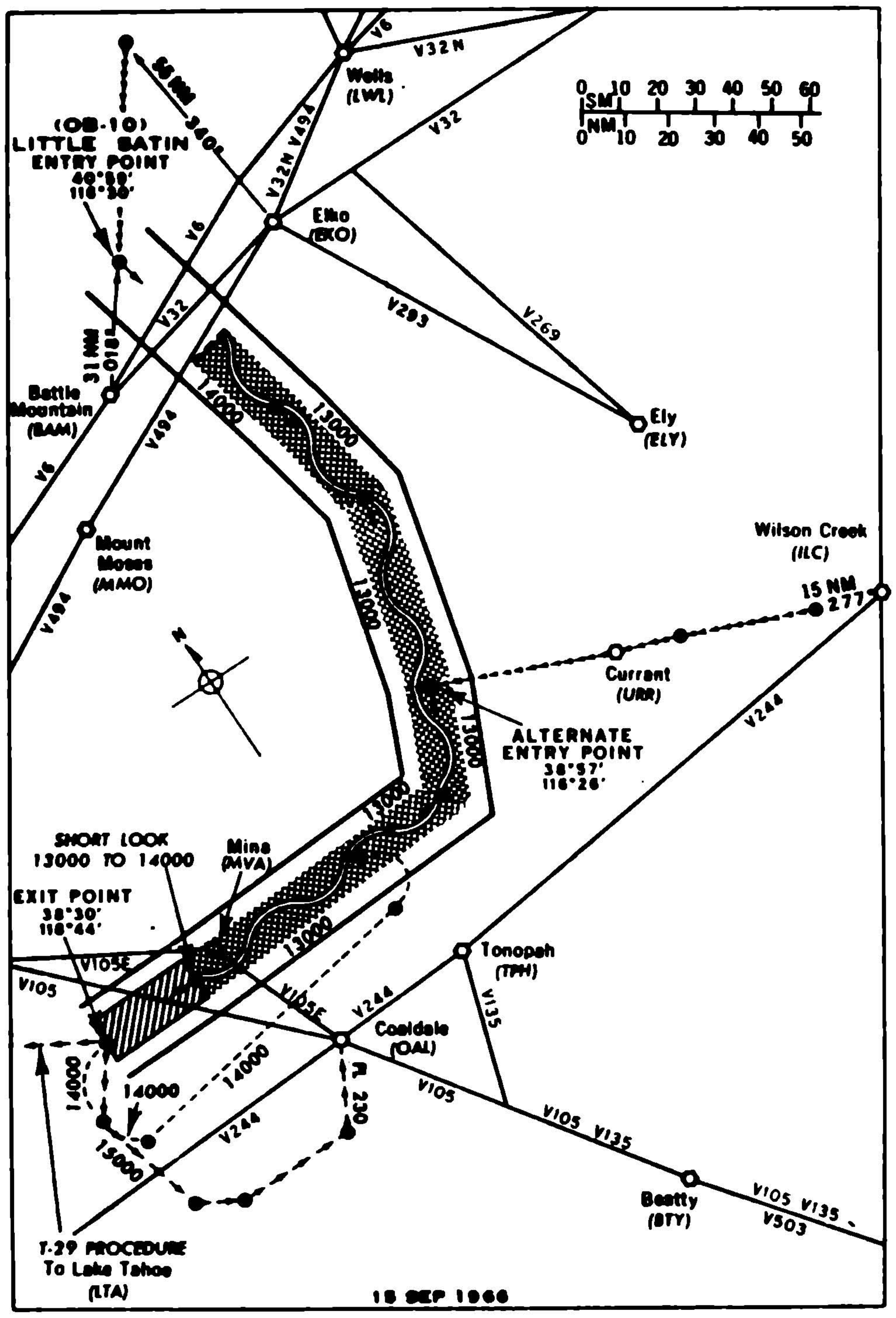
Aircraft shall cross 41°40'N, 115°49'W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59'N, 116°30'W (Battle Mountain VOR 018°/31) at 14,000' MSL, then 14,000' MSL direct 40°10'N, 116°17'W; then descend to 13,000' MSL direct 39°42'N, 116°10'W, then 13,000' MSL direct 38°57'N, 116°26'W, then 13,000' MSL direct 38°34'N, 116°40'W, then 13,000' MSL direct 38°31'N, 118°12'W.

Short Look—After passing 38°31'N, 118°12'W aircraft shall operate between a maximum altitude of 14,000' MSL and a minimum of 13,000' MSL thru the bomb run corridor (4 NM either side of centerline from 38°31'N, 118°12' W to 38°30' N, 118°44' W). After exiting the route at 38°30'N, 118°44'W aircraft shall start climb to cross 38°15'N, 118°57'W at 15,000' MSL; then maintain 15,000' MSL direct 37°48'N, 118°48'W; then climb so as to cross 37°42'N, 118°36'W at or above 17,000' MSL; then climb direct to cross 37°42'N, 118°00'W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30'N, 118°44'W, maintain 14,000' MSL direct 38°15'N, 118°57'W, then 14,000' direct 38°06'N, 118°50'W direct 38°19'N, 117°12'W; then descend direct to cross 38°33'N, 117°12'W at 13,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 40°30'N, 116°22'W to 38°31'N, 118°12'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21'N, 114°41'W); then descend direct to cross 38°34'N, 115°18'W at or below 15,000' MSL; then descend direct via the Currant, Nev. VOR to cross 38°57'N, 116°26'W at 13,000' MSL, thence via the published route.


V32N
V6
Wells (LWL)
V32
0 10 20 30 40 50 60 SM
NM 0 10 20 30 40 50
(OB-10) LITTLE SATIN ENTRY POINT 40°58' 118°30'
56 NM 340°
V32N V494
Elko (EKO)
V293
V269
31 NM 018°
Battle Mountain (BAM)
14000
13000
Ely (ELY)
V494
V6
Mount Moses (MMO)
Wilson Creek (ILC)
15 NM 277°
Currant (URR)
ALTERNATE ENTRY POINT 38°57' 116°26'
V244
SHORT LOOK 13000 TO 14000
Mina (MVA)
EXIT POINT 38°30' 118°44'
V105
Tonopah (TPH)
V135
Coaldale (OAL)
14000
15000
R 230
V105 V135
Beatty (BTY)
V105 V135 V503
T-29 PROCEDURE To Lake Tahoe (LTA)
15 SEP 1966

T-29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15'N, 114°23'W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30'N, 118°44'W exit point of the bomb run corridor; then climb to 14,000' MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11' N, 120°16'W).

Hours of Operation—24 hours daily, 7 days a week.

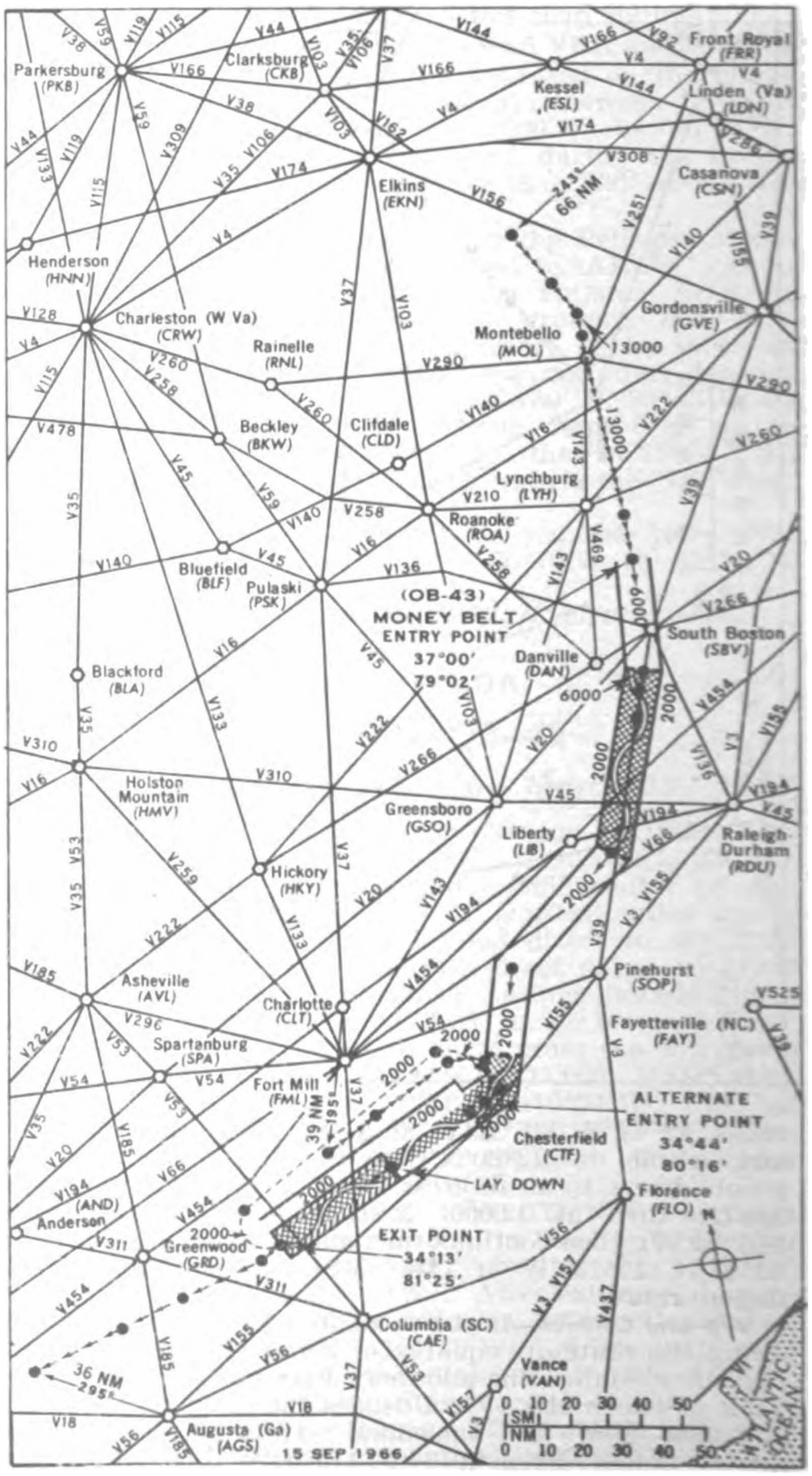
NORTH CAROLINA/SOUTH CAROLINA/VIRGINIA

MONEY BELT OB-43

Effective October 3, 1966 thru March 25, 1967

Aircraft shall cross the Front Royal, Va. VORTAC 243/66 DME Fix (38°29'N, 79°22'W) at FL 240, or as assigned by ARTCC, then descend direct so as to cross 38°15'N, 79°12'W at or below FL 200, then descend direct so as to cross 38°06'N, 79°06'W at 13,000' MSL; then at 13,000' MSL direct to 38°00'N, 79°05'W; then at 13,000' MSL direct to 37°12'N, 79°02'W; then descend direct so as to cross 37°00'N, 79°02'W at 6,000' MSL (Low Level Entry Point); then at 6,000' MSL direct to 36°30'N, 79°05'W; then at 6,000' MSL direct to 36°25'N, 79°07'W; then descend direct so as to cross 36°17'N, 79°10'W at 2,000' MSL; then at 2,000' MSL direct to 35°44'N, 79°23'W; then at 2,000' MSL direct to 35°17'N, 80°01'W; then at 2,000' MSL direct to 34°46'N, 80°11'W; then at 2,000' MSL direct to 34°30'N, 80°47'W.

Lay Down—After passing 34°30'N, 80°47'W, aircraft shall maintain 2,000' MSL through the bomb run corridor (4 NM either side of centerline from 34°30'N, 80°47'W to 34°13'N, 81°25'W). After exiting the route at 34°13' N, 81°25'W, aircraft shall climb so as to cross 34°10'N, 81°32'W at or above 5,000' MSL (contact Atlanta Center on 322.4 mc); then climb direct so as to cross 34°03'N, 81°58'W at or above 12,000' MSL; then climb direct so as to cross 33°57'N, 82°18'W at 17,000' MSL;


Parkersburg (PKB)
Clarksburg (CKB)
Front Royal (FRR)
Kessel (ESL)
Linden (Va) (LDN)
Casanova (CSN)
243° 66 NM
Elkins (EKN)
Henderson (HNN)
Gordonsville (GVE)
Charleston (W Va) (CRW)
Rainelle (RNL)
Montebello (MOL)
13000
Beckley (BKW)
Clifdale (CLD)
Lynchburg (LYH)
Roanoke (ROA)
Bluefield (BLF)
Pulaski (PSK)
(OB-43) MONEY BELT ENTRY POINT 37°00' 79°02'
Danville (DAN)
6000
South Boston (SBV)
Blackford (BLA)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
2000
Asheville (AVL)
Charlotte (CLT)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Spartanburg (SPA)
Fort Mill (FML)
39 NM 195°
ALTERNATE ENTRY POINT 34°44' 80°16'
Chesterfield (CTF)
LAY DOWN
Florence (FLO)
Anderson (AND)
Greenwood (GRD)
EXIT POINT 34°13' 81°25'
Columbia (SC) (CAE)
36 NM 295°
Vance (VAN)
Augusta (Ga) (AGS)
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50
ATLANTIC OCEAN
15 SEP 1966

then climb direct so as to cross 33°48'N, 82°47'W at FL 240 (295/36 Augusta, Ga. VORTAC).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 34°13'N, 81°25'W, maintain 2,000' MSL and turn right to 34°24'N, 81°35'W; then at 2,000' MSL direct to 34°54'N, 80°28'W; then at 2,000' MSL turn right to intercept the route at 34°42'N, 80°20' W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000'; visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 36°30'N, 79°05'W to 35°44'N, 79°23' W; and from 34°56'30"N, 80°07'30"W to 34°13'N, 81°25'W. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross 34°35'N, 81°07'W (195/39 DME Fix of the Charlotte, North Carolina, VORTAC) at FL 240, or as assigned by ARTCC; then descend direct so as to cross 34°44'N, 80°49'30"W at 16,000' MSL; then descend direct so as to cross 34°55'30"N, 80°25'W at 5,000' MSL; then turn right and descend so as to cross 34°54'N, 80°14'30"W at 2,000 MSL; then at 2,000' MSL continue turn to 34°44'N, 80°16'W; thence via the published route.

Route Width—The IFR route width is reduced to 4NM either side of centerline from 37°00'N, 79°02'W to 34°42'N, 80°20'W and to 4 NM on the south side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

The VFR Route width is reduced to 2NM on either side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

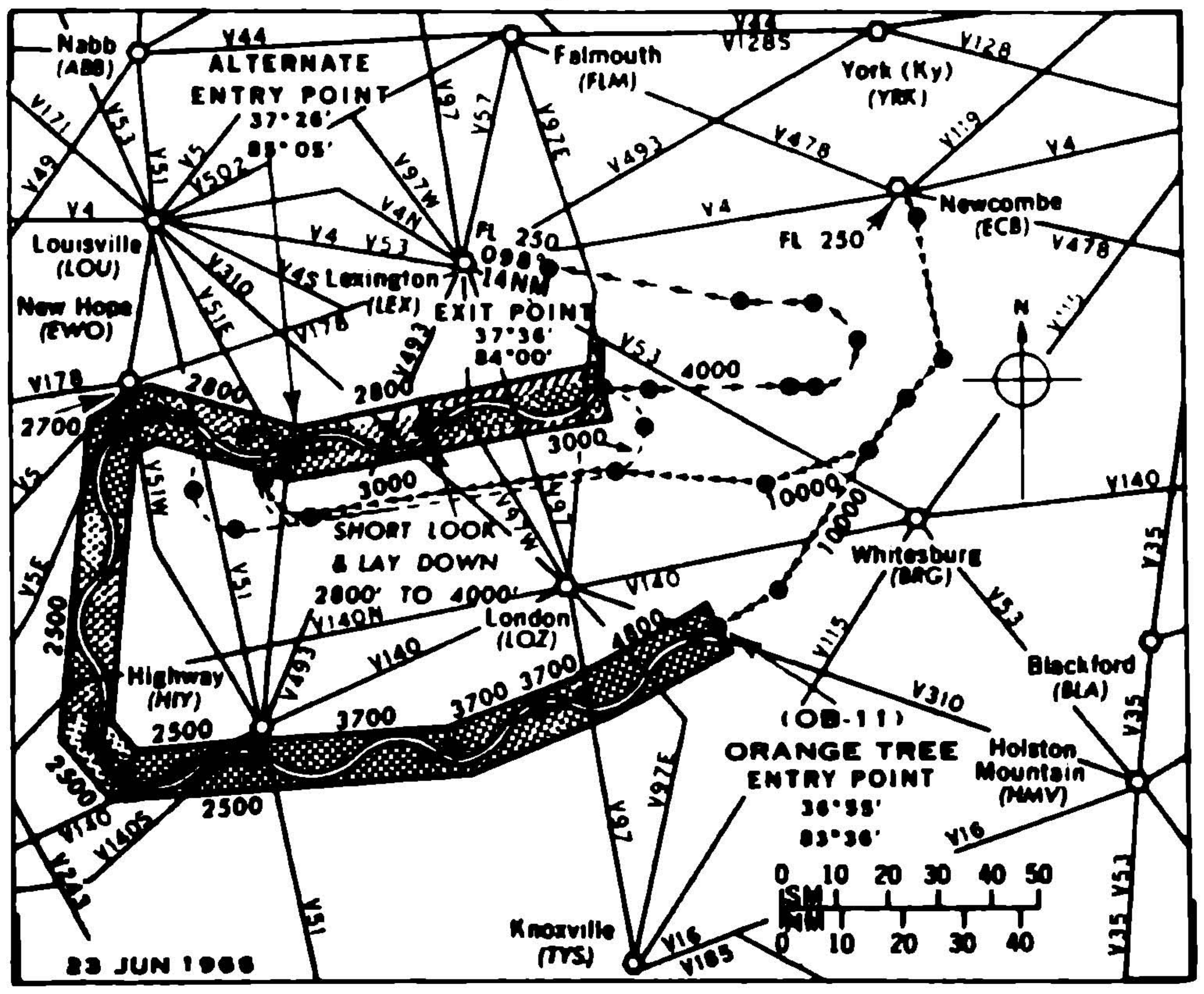
Hours of Operation—Primary Entry from 2300Z to 1300Z and from 1400Z to 2000Z 7 days per week. Alternate Entry from 2300Z to 1300Z 7 days per week.

KENTUCKY/TENNESSEE

ORANGE TREE OB–11

Revised Effective June 19, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05'N, 82°53'W; then start descending to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01'N, 83°24'W; then start descent so as to cross route entry at 36°55'N, 83°36'W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45' N, 84°01'W; then descend so as to cross 36°41'N, 84°14' W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°35'N, 84°32'W; direct 36°32'N, 85°15'W; descend so as to cross 36°32'N. 85°21'W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31'N, 85°40'W; then turn right to 36°36'N, 85°49'W; direct 37°28'N, 85°44'W; then turn right climb to cross 37°32'N, 85°35'W at 2800' MSL; then at 2800' MSL direct 37°26'N, 85°05'W; then at 2800 feet MSL direct 37°30'N, 84°38'W.



Short Look and Lay Down—After passing 37°30'N, 84°38' W aircraft shall maintain between 2800' and 4000'. feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30'N, 84°38'W to 37°36'N, 84°00'W). After exiting the route at 37°36'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36'N, 83°20'W; then start climb direct 37°36'N, 83°15'W; cross 37°44'N, 83°05'W at or below 9,000 feet MSL; continue climb direct 37°50'N, 83°15'W; then climbing direct so as to cross 37°51'N, 83°30'W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3 000 feet MSL continue right turn to 37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28' N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53' W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3.00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N. 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800' MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

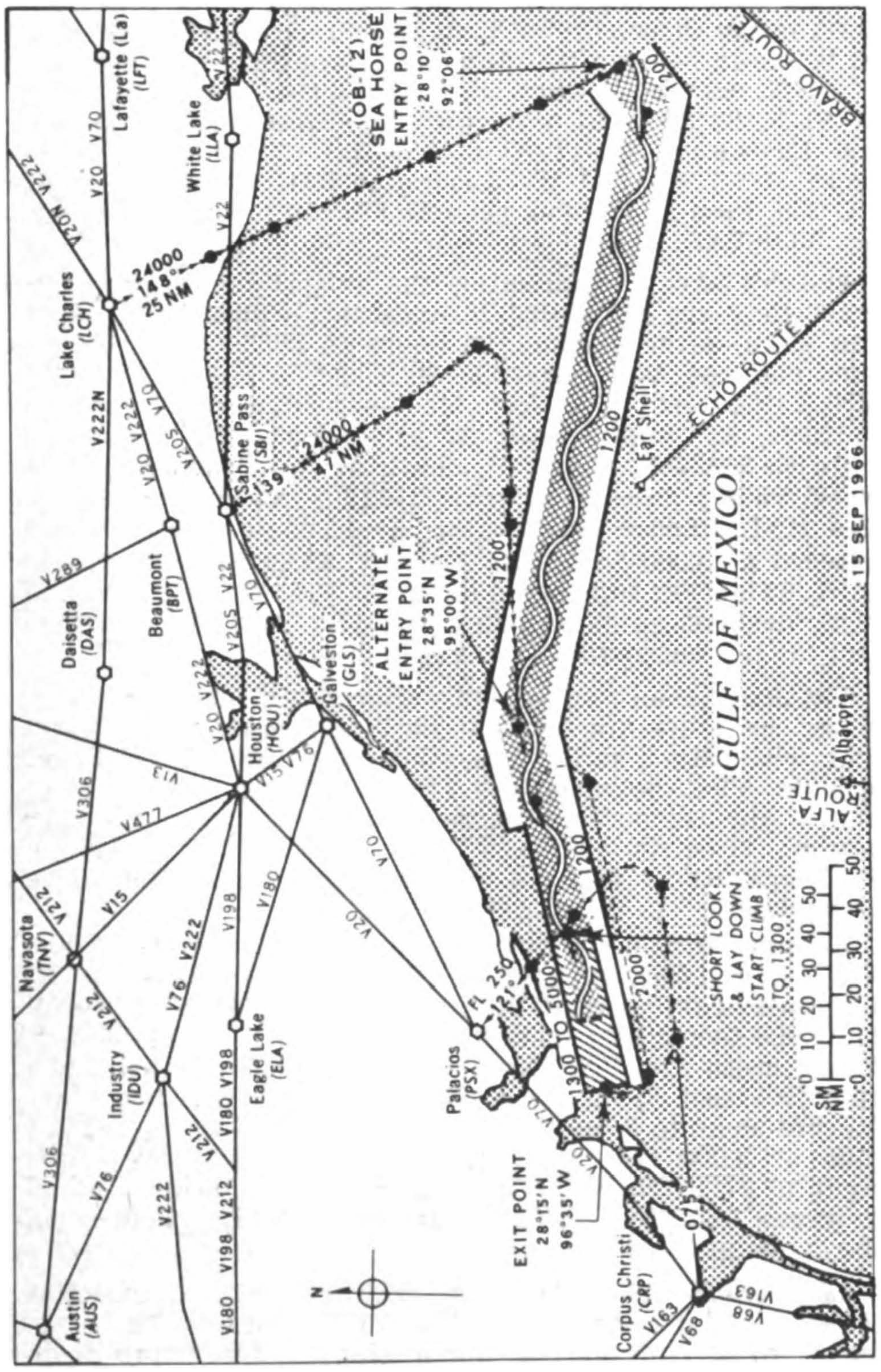
SEA HORSE OB–12

Revised Effective February 27, 1966

Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix;

start descent, cross 29°31'N, 92°47'W at FL 190, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1200' MSL (low level entry point). Maintain 1200' MSL, turn right to 28°03'N, 92°16'W, direct 28°35'N, 95°00'W. direct 28°24'N, 95°53'W.

Short Look and Lay Down—After passing 28°24'N, 95°53' W climb to 1300' MSL and maintain between 1300' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 28°24'N, 95°53'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35' W, the route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°35'W turn left so as to cross 28°05'N, 96°32'W at 2,000' MSL; maintain 2000' MSL direct 28°18'N, 95°15'W, turn left descending so as to intercept the route at 28°31'N, 95°19' W at 1200' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the surface between the following points: From 28°10'N, 92°06'W to 28°19'N, 96°16'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the surface.

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°37'N, 94°06'W at 1200' MSL, direct 28°35'N, 95°00'W, thence via the published route.

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30'N, 95°24'W to 28°15'N, 96°35'W.

Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

SILVER BAY OB–13

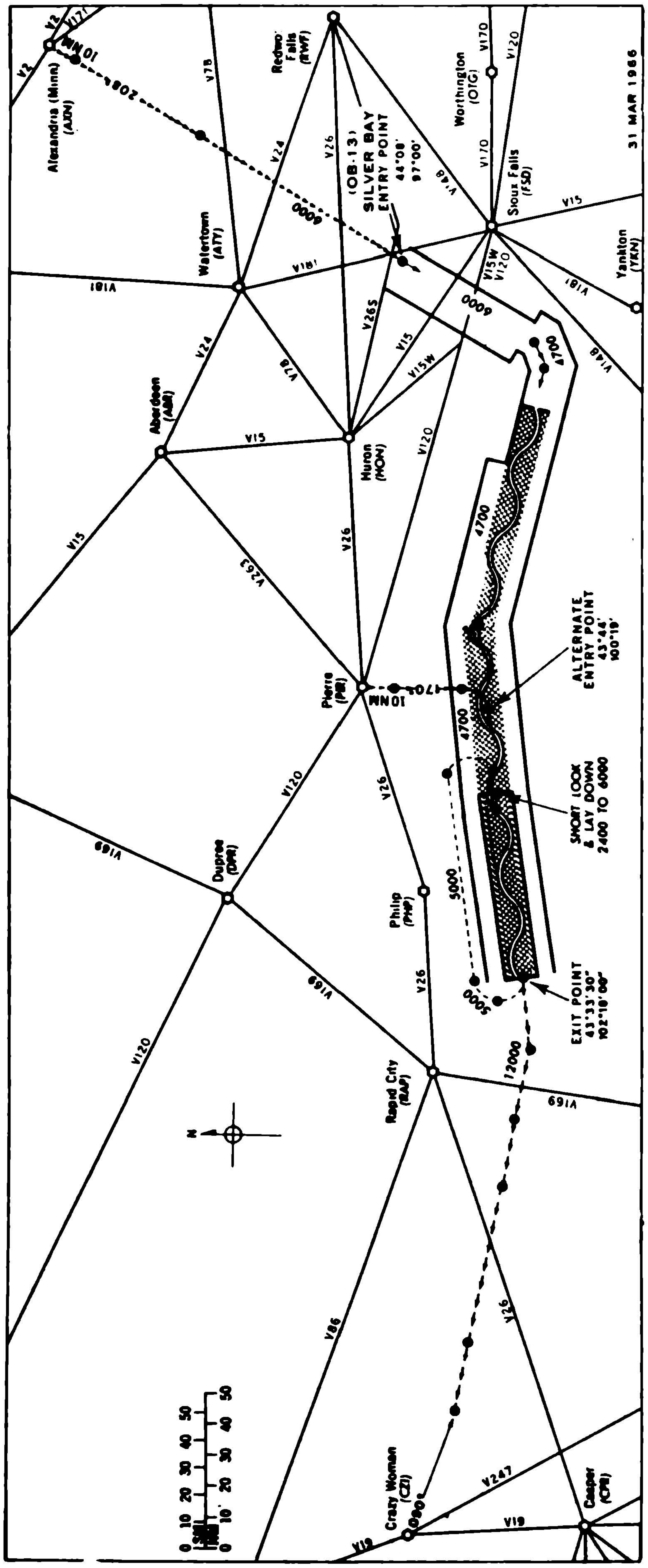
Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10'N, 96°00'W at 6000' MSL; then at 6000' MSL direct 44°08'N, 97°00'W (low level entry point); then at 6000'MSL direct 43°27'N, 97°37'W; then turn right descending so as to cross 43°24'N, 97°48'W at 4700' MSL; then at 4700' MSL direct 43°47'N, 99°45'W; then at 4700' MSL direct to 43°42'N, 100°56'W.

Short Look and Lay Down—After passing 43°42'N, 100°56'W, aircraft shall maintain between 2400' MSL and 6000' MSL through the bomb run corridor (4 NM either side of centerline from 43°42'N, 100°56'W to 43°33'30''N, 102°18'W). The minimum IFR altitude through the corridor is 4700' MSL. After exiting the route at 43°33'30''N, 102°18'W aircraft shall climb so as to cross 43°30'N. 102°50'W at 12,000' MSL; then at 12,000' MSL direct to 43°34'N, 103°20'W then climb direct so as to cross 43°37'30''N, 103°50'W at FL 180 then climb direct so as to cross 43°46'N, 105°00'W at or below FL 230 then climb direct so as to cross 43°49'N, 105°30'W (CZI 090/42 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33'30''N, 102°18'W turn right and climb or descend so as to cross 43°40'N, 102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°56'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30''N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30''N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.


Alexandria (Minn) (AXN)
V2
V171
WN01
1802
V78
Redwood Falls (RWF)
V170
V120
Worthington (OTG)
31 MAR 1966
(OB-13) SILVER BAY ENTRY POINT 44°08' 97°00'
V148
Sioux Falls (FSD)
V15
Watertown (ATY)
V24
V26
0009
V181
V181A
Yankton (YKN)
V15W
V265
Aberdeen (ABR)
Huron (HON)
4700
ALTERNATE ENTRY POINT 43°44' 100°19'
Pierre (PIR)
WN01
SHORT LOOK & LAY DOWN 2400 TO 6000
V263
Dupree (DPR)
V169A
Philip (PHP)
5000
EXIT POINT 43°33'30" 102°18'00"
Rapid City (RAP)
12000
V191A
V86
Crazy Woman (CZI)
Casper (CPR)
V247
V19
N
0 10 20 30 40 50 SM NM

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08'N, 97°00'W to 43°-29'N, 97°35'W and 4 NM north of centerline between 43°29'N, 97°35'W to 43°32'N, 98°30'W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41'N, 99°13'W to 43°47'N, 99°45'W.

Hours of Operation—24 hours daily seven days per week.

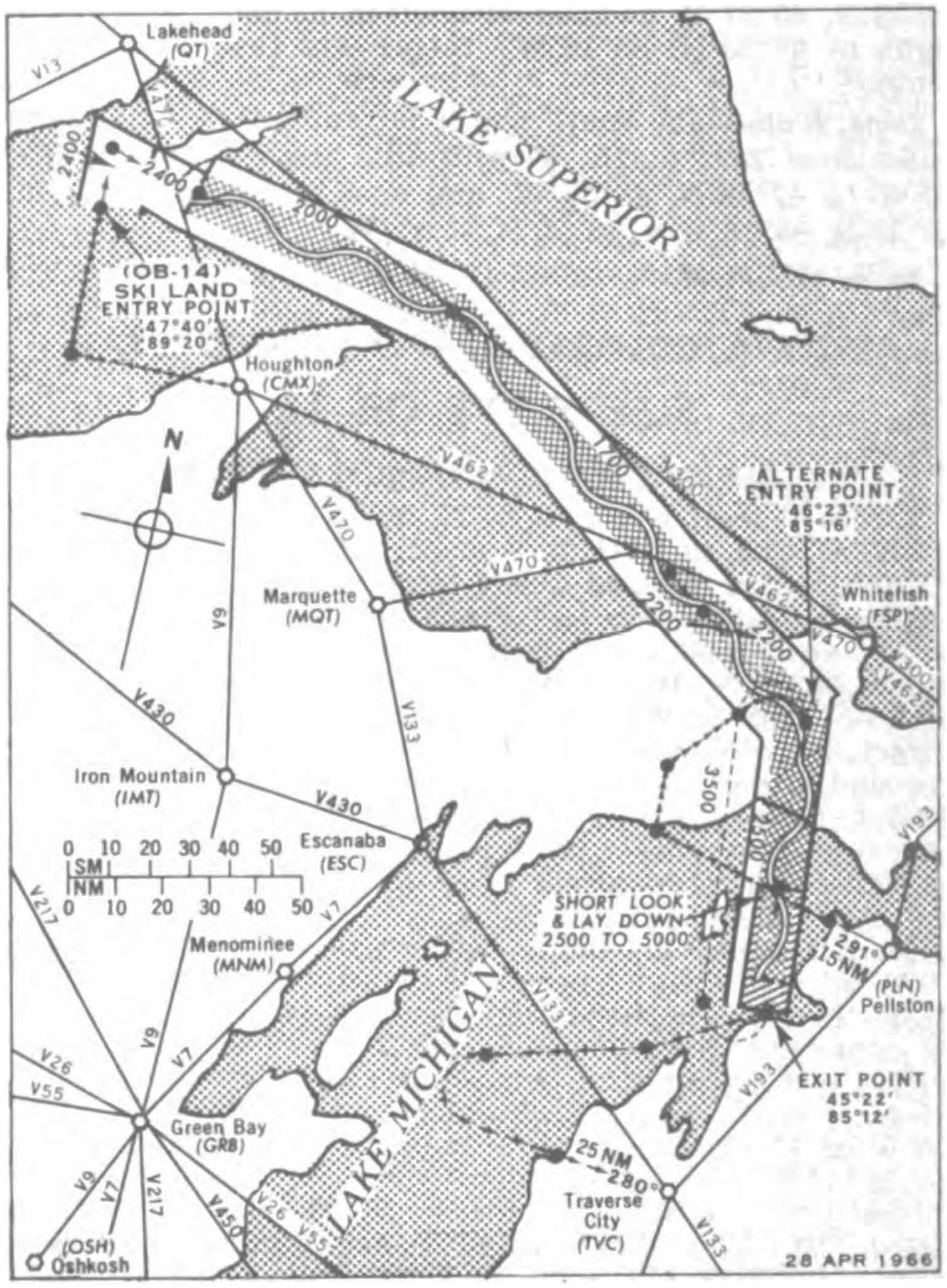
MICHIGAN

SKI LAND OB–14

Revised Effective June 24, 1965

Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52''N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°-48'N, 85°15'W.

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side


Lakehead (QT)
V13
2400
LAKE SUPERIOR
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
N
V462
V470
2000
ALTERNATE ENTRY POINT 46°23' 85°16'
Whitefish (FSP)
Marquette (MQT)
V9
2200
V430
V133
3500
Iron Mountain (IMT)
Escanaba (ESC)
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50
V217
SHORT LOOK & LAY DOWN 2500 TO 5000
291° 15NM
(PLN) Pellston
Menominee (MNM)
LAKE MICHIGAN
V193
EXIT POINT 45°22' 85°12'
V26
V55
V7
Green Bay (GRB)
25NM 280°
Traverse City (TVC)
(OSH) Oshkosh
V450
28 APR 1966

of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

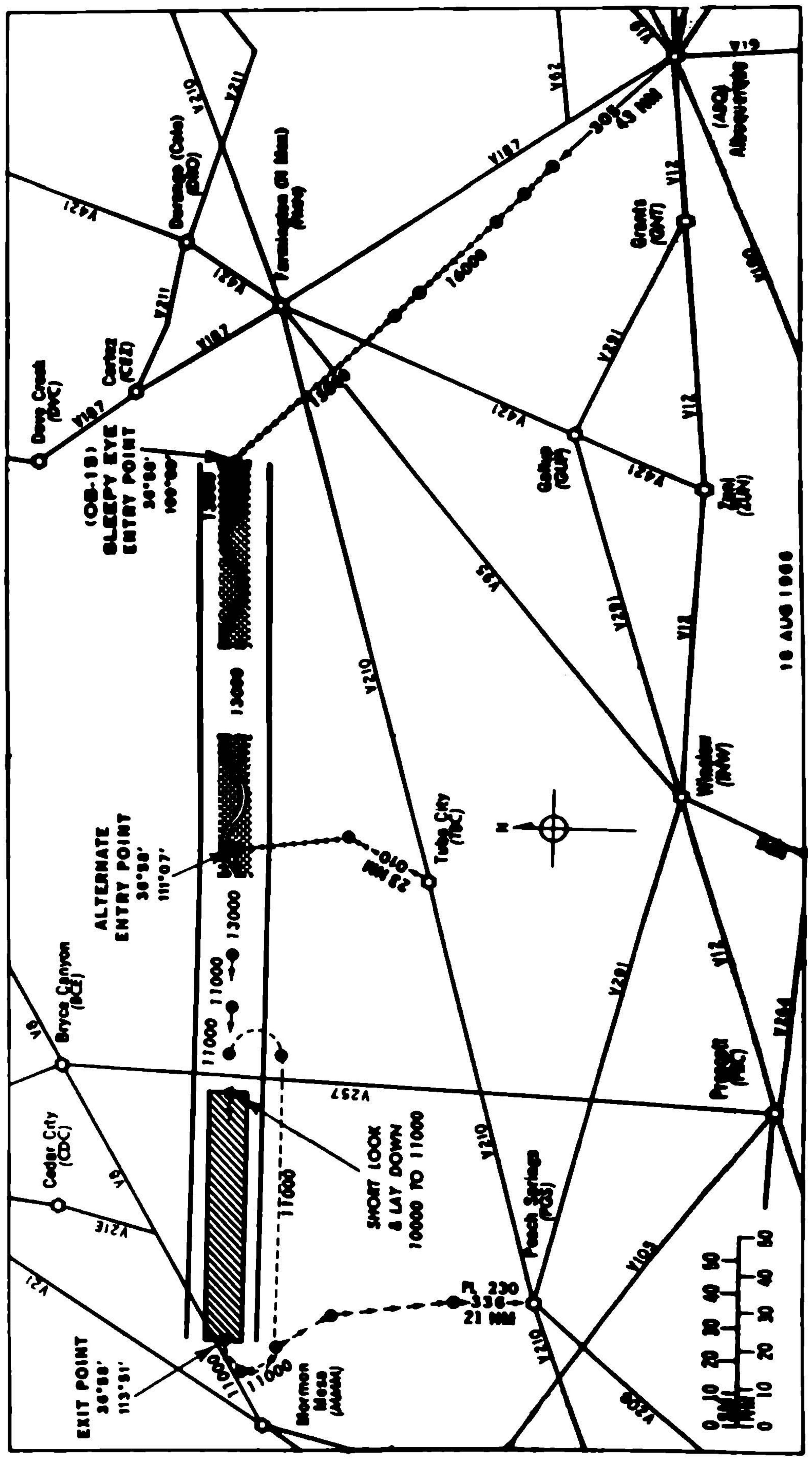
ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE OB-15

Revised Effective August 4, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°49'N, 107°42'W at 16,000' MSL; then maintain 16,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.

Short Look and Lay Down—After passing 36°58'N, 112°29'W aircraft shall operate between 10,000' and 11,000' MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30"N, 113°32'W).


(OB-15) SLEEPY EYE ENTRY POINT 36°58' 109°00'
ALTERNATE ENTRY POINT 36°58' 111°07'
EXIT POINT 36°58' 113°51'
SHORT LOOK & LAY DOWN 10000 TO 11000
Albuquerque (ABQ)
Farmington (Oil Man) (FMN)
Durango (Cole) (DRO)
Cortez (CEZ)
Dove Creek (DVC)
Grants (GNT)
Gallup (GUP)
Zuni (ZUN)
Winslow (INW)
Tuba City (TBC)
Prescott (PRC)
Peach Springs (PGS)
Bryce Canyon (BCE)
Cedar City (CDC)
Mormon Mesa (MMM)
V187
V210
V211
V421
V12
V19
V62
V201
V95
V257
V21
V8
V212
V105
V264
V190
305 43 NM
16000
15000
13000
11000
010 23 NM
FL 230 336 21 NM
18 AUG 1966
0 10 20 30 40 50

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left direct to cross 36°58'N, 112°16'W at or below 11,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°58N, 111°16'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07'30"N, 111°16'W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then

maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28'N, 111°04'W); then descend direct to cross 36°58'N, 111°07'W at 13,000' MSL; thence via published route.

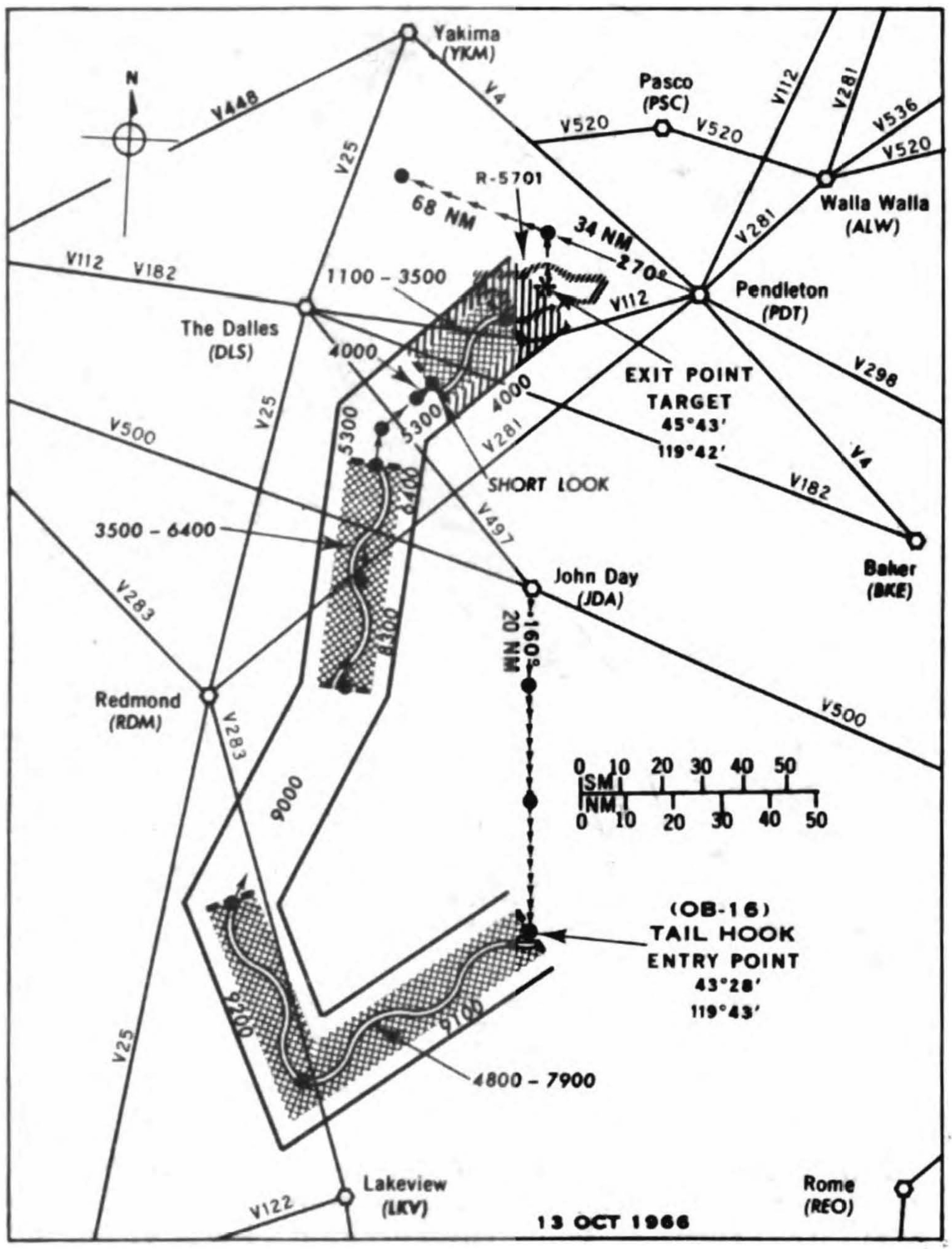
Hours of Operation—24 hours daily, 7 days a week.

OREGON

TAIL HOOK OB–16

Revised Effective September 25, 1966

Aircraft shall cross the John Day, Oregon VOR (reporting point) at FL 230, or as assigned by ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 NM south of the John Day VOR (44°19'N, 119°43'W); then descend to cross 43°55'N, 119°43'W at 10,000' MSL; then descend to cross 43°28'N, 119°43'W (entry point) at 9,100' MSL; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.



Short Look—**After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R–5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 NM fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 NM fix at FL 230.**

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R–5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE OB–17

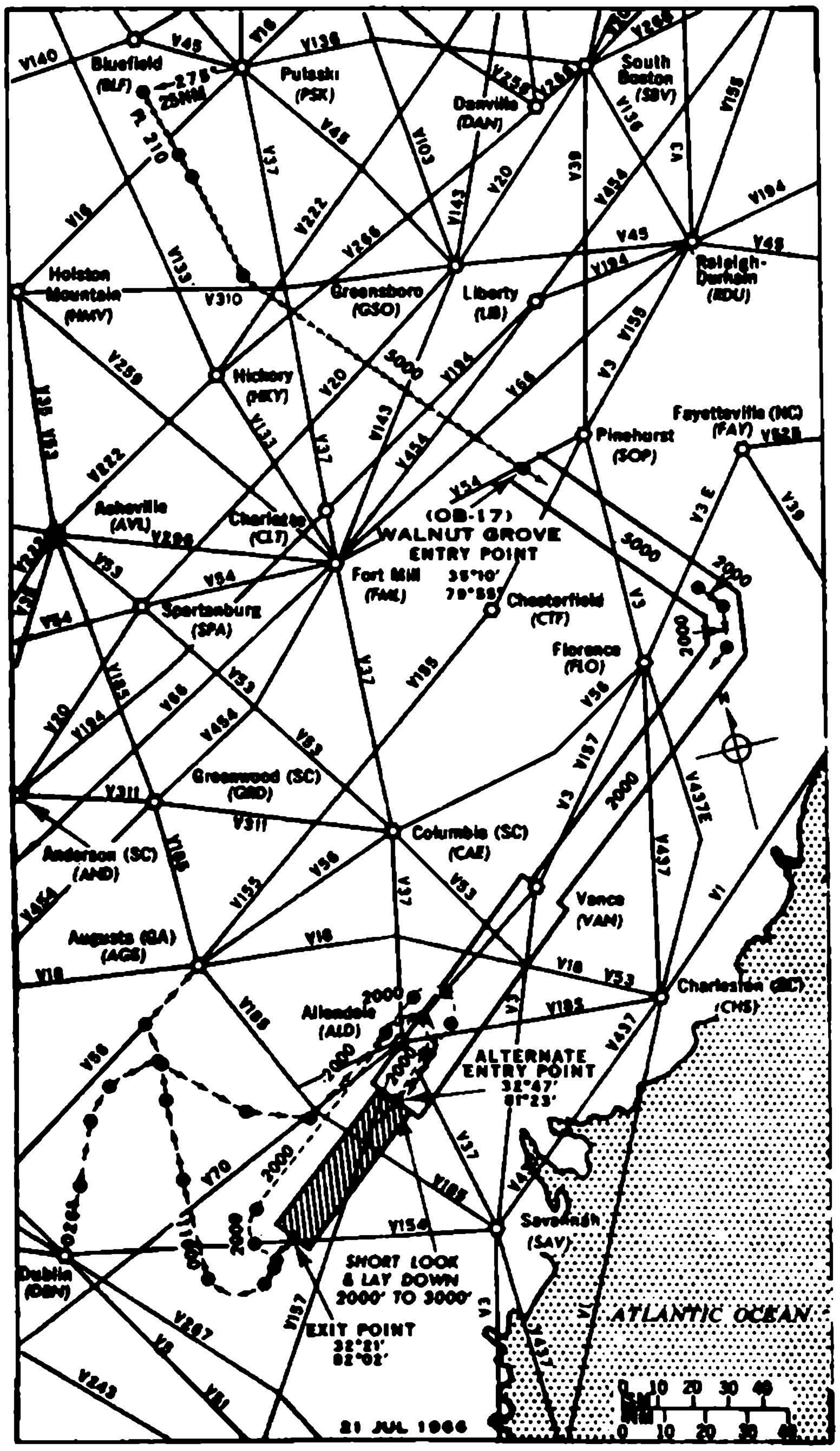
Revised Effective January 6, 1966

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°13'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 81°23'W.

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000' MSL through the bomb run corridor (4 NM either side of center line from 32°47'N, 81°23'W to 32°21'N, 82°02'W). After exiting the route at 32°21'N, 82°02'W, aircraft shall climb to or maintain 3,000' MSL to 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4,000' MSL; cross 32°12'N, 82°15'W at 6,000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30''W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21'N, 82°02'W, turn right and descend or maintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' MSL continue turn to 32°30'N, 82°11'W; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04'N, 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 81°23'W; thence via the published route. Aircraft may proceed at 2000' MSL from 32°30'N, 82°11'W, direct 33°11'N, 81°09'30''W; turn right to 33°11'N, 80°59'30'' W; continue turn to 33°02'N, 81°01'W; thence via published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 026° radial so as to cross 32°47'N, 82°59'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000' MSL; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04', 81°10'W; con-


Bluefield (BLF)
Pulaski (PSK)
South Boston (SBV)
Danville (DAN)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
Fayetteville (NC) (FAY)
Pinehurst (SOP)
Asheville (AVL)
Charlotte (CLT)
(OB-17) WALNUT GROVE ENTRY POINT 35°10' 79°55'
Fort Mill (FML)
Chesterfield (CTF)
Spartanburg (SPA)
Florence (FLO)
Greenwood (SC) (GRD)
Anderson (SC) (AND)
Columbia (SC) (CAE)
Vance (VAN)
Augusta (GA) (AGS)
Charleston (SC) (CHS)
Allendale (ALD)
ALTERNATE ENTRY POINT 32°47' 81°23'
Savannah (SAV)
Dublin (DBN)
SHORT LOOK & LAY DOWN 2000' TO 3000'
EXIT POINT 32°21' 82°02'
ATLANTIC OCEAN
21 JUL 1966

tinue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26'N, 80°25'W to 32°47'N, 81°23'W the route width is reduced to 6 NM.

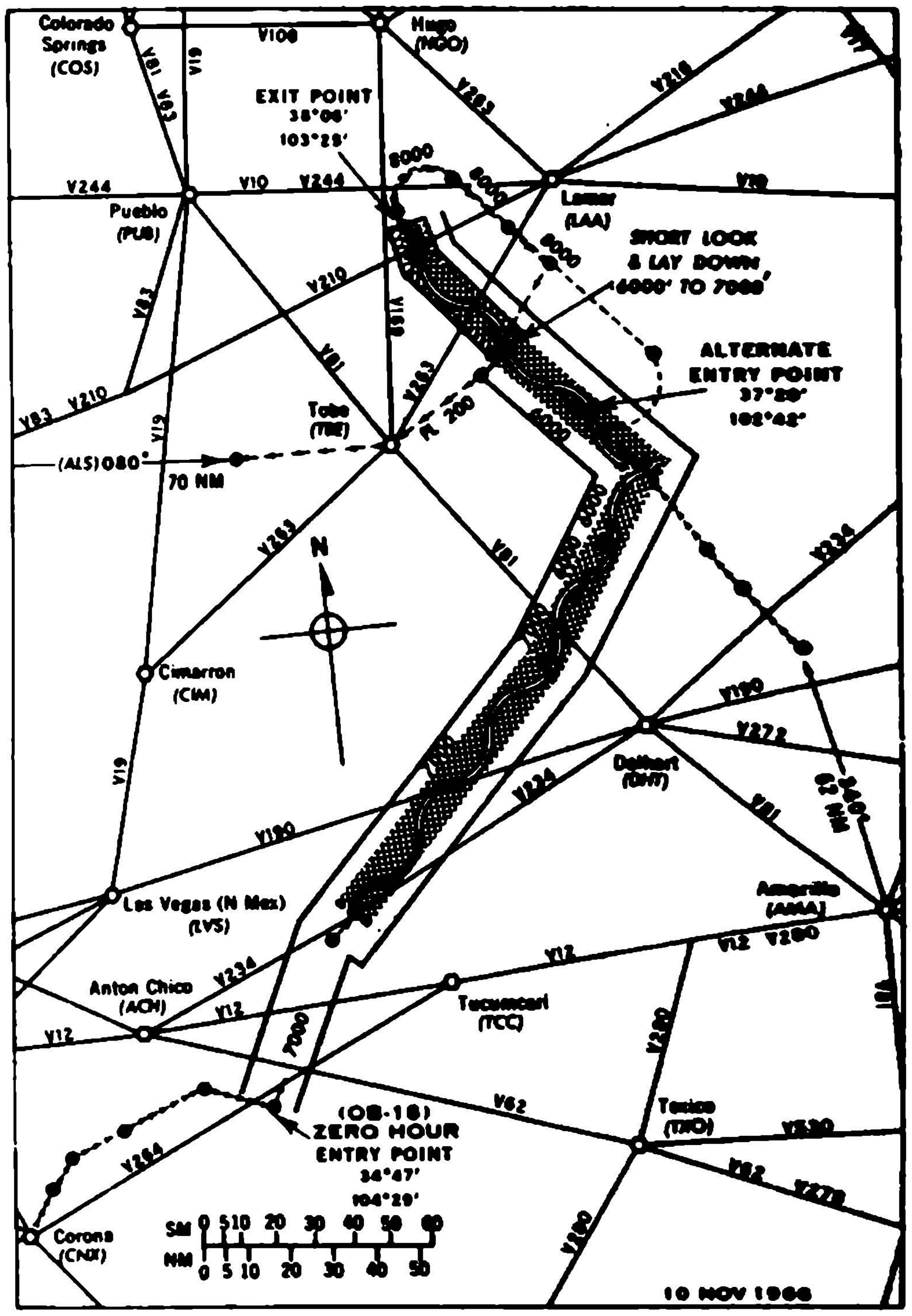
Hour of Operation—24 hours daily, 7 days a week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB–18

Revised Effective June 19, 1966

Aircraft shall cross 34°22'N, 105°40'30"W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33'N, 105°33'W at or below FL 230; then descend direct to cross 34°40'N, 105°28'W at FL 220; then descend direct to cross 34°45'N, 105°12'W at or below 17,000' MSL; then descend direct to cross 34°53'N, 104°48'W at 10,000' MSL; then descend direct to cross the route entry point at 34°47'N, 104°29' W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104°08'W; then 7000' MSL direct to 36°22'N, 103°00'W; then 7000' MSL direct to 36°37'N, 102°49'W; then descend direct to cross 36°49'N, 102°40'W at 6000' MSL; then 6000' MSL direct to 37°06'N, 102°27'W; then 6000' MSL direct to 37°36'N, 103°00'W.


Colorado Springs (COS)
Hugo (HGO)
EXIT POINT 38°06' 103°25'
Lamar (LAA)
SHORT LOOK & LAY DOWN 6000' TO 7000'
Pueblo (PUB)
ALTERNATE ENTRY POINT 37°29' 102°42'
Tobe (TBE)
(ALS) 080
70 NM
Cimarron (CIM)
Dalhart (DHT)
Las Vegas (N Mex) (LVS)
Amarillo (AMA)
Anton Chico (ACH)
Tucumcari (TCC)
(OB-18) ZERO HOUR ENTRY POINT 34°47' 104°29'
Texico (TXO)
Corona (CNX)
SM 0 5 10 20 30 40 50 60
NM 0 5 10 20 30 40 50
10 NOV 1966

Short Look and Lay Down—After passing 37°36'N, 103°00'W, aircraft shall maintain between 6000' MSL and 7000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°36'N, 103°00'W to 37°57'N, 103°22'W to 38°06'N, 103°25'W). After exiting the route at 38°06'N, 103°25'W climb direct to cross 38°09'N, 103°26'W at 8000' MSL, turn right, maintain 8000' MSL to 38°15'N, 103°10'W, then 8000' MSL direct to 38°02'N, 102°55'W, then climb direct to cross 37°53'N, 102°45'W at 9000' MSL, continue climb direct to cross 37°30'N, 103°08'W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16'N, 104°21'W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06'N, 103°25'W, climb direct to cross 38°09'N, 103°26'W at 8000' MSL, maintain 8000' MSL right turn to 38°15'N, 103°10'W, then 8000' MSL direct 37°29'N, 102°18'W; then turn right descending to cross 37°14'N, 102°35'W at 6000' MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate

VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 35°30′N, 104°01′W to 38°06′N, 103°25′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross 36°19′N, 101°51′W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34′N, 102°03′W at 17,000′ MSL; then descend direct to cross 36°44′N, 102°11′W at 14,000′ MSL; then descend direct to cross 37°06′N, 102°27′W at 11,000′ MSL; then descend direct to cross 37°20′N, 102°42′W at 6000′ MSL; thence via the published route.

Route Width—The route width from 34°47′N, 104°29′W to 35°24′N, 104°08′W is reduced to 4 NM on the east side of centerline, and from 37°36′N, 103°00′W, to 38°06′N, 103°25′W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective November 12, 1966:

LOW FREQUENCY RANGE

Location	Procedure	Action
Millville, N.J.—Millville Muni Arpt	No. 1, Amdt. 8, efctv 29 Feb 64	Cancelled

AUTOMATIC DIRECTION FINDING

Detroit, Mich.—Detroit Metro. Wayne Co. Arpt	No. 1, Amdt. 16	Revised
Detroit, Mich.—Detroit Metro. Wayne Co. Arpt	No. 2, Amdt. 6	Revised
Ft. Leavenworth, Kans.—Sherman AAF	No. 1, Amdt. 4, efctv 5 Sep 64	Revised
Ft. Myers, Fla.—Page Field	No. 1, Amdt. 4	Revised
Lincoln, Neb.—Lincoln Muni/AFB	No. 1, Amdt. 2	Revised
Millville, N.J.—Millville Muni Arpt	No. 1, Orig.	Established

VHF OMNIRANGE

Ft. Sill, Okla.—Henry Post AAF	No. 1, Amdt. 7	Revised
Glasgow, Mont.—Glasgow Int'l Arpt	No. 1, Orig.	Established
Grand Rapids, Minn.—Grand Rapids Muni Arpt	No. 1, Orig.	Established
Hopkinsville, Ky.—Hopkinsville-Christian Co Arpt	No. 1, Amdt. 1 efctv 31 Jul 65	Cancelled
Lexington, Ky.—Blue Grass Arpt	No. 1, Amdt. 8	Revised
Lincoln, Neb.—Lincoln Muni/AFB	No. 1, Amdt. 3	Revised
Monroeville, Ala.—Monoreville Muni Arpt	No. 1, Orig.	Established
Monroeville, Ala.—Monoreville Muni Arpt	No. 2, Orig.	Established
New York, N.Y.—LaGuardia Arpt	No. 1, Amdt. 5	Revised
New York, N.Y.—LaGuardia Arpt	No. 3, Orig.	Established
Oneonta, N.Y.—Oneonta Muni Arpt	No. 1, Orig.	Established

TERMINAL VOR

Escanaba, Mich.—Escanaba Muni Arpt	TerVOR-27, Orig.	Established
Fergus Falls, Minn.—Fergus Falls Muni Arpt (Einar Mickelson Fld)	TerVOR-35, Amdt. 1	Revised
Flint, Mich.—Bishop Arpt	TerVOR-5, Amdt. 4	Revised
Flint, Mich.—Bishop Arpt	TerVOR-9, Amdt. 7	Revised
Flint, Mich.—Bishop Arpt	TerVOR-27, Amdt. 4	Revised
Riverton, Wyo.—Riverton Muni Arpt	TerVOR-10, Amdt. 3	Revised
Riverton, Wyo.—Riverton Muni Arpt	TerVOR-28, Amdt. 3	Revised

VOR/DME

Ft. Myers, Fla.—Page Field	VOR/DME-1, Amdt. 2	Revised
Lexington, Ky.—Blue Grass Arpt	VOR/DME-1, Amdt. 2 efctv 17 Oct 64	Cancelled
Morgantown, W. Va.—Morgantown Muni Arpt	VOR/DME-2, Orig.	Established
Pierre, S.D.—Pierre Muni Arpt	VOR/DME-1, Orig.	Established

INSTRUMENT LANDING SYSTEM

Detroit, Mich.—Detroit Metro. Wayne Co. Arpt	ILS-3L-R, Amdt. 16	Revised
Detroit, Mich.—Detroit Metro. Wayne Co. Arpt	ILS-21R, Amdt. 5	Revised
Lexington, Ky.—Blue Grass Arpt	ILS-4, Amdt. 6	Revised
Lincoln, Neb.—Lincoln Muni/AFB	ILS-17R (Back Course), Amdt. 1	Revised
Lincoln, Neb.—Lincoln Muni/AFB	ILS-35L, Amdt. 2	Revised
Rockford, Ill.—Greater Rockford Arpt	ILS-36, Amdt. 7	Revised

RADAR

Detroit, Mich.—Detroit Metro. Wayne Co. Arpt	No. 1, Amdt. 2	Revised
New York, N.Y.—John F. Kennedy Int'l Arpt	No. 1, Amdt. 13	Revised
Philadelphia, Pa.—Philadelphia Int'l Arpt	No. 1, Amdt. 10	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective November 19, 1966:

AUTOMATIC DIRECTION FINDING

Location	Procedure	Action
Chattanooga, Tenn.—Lovell Field	No. 1, Amdt. 16	Revised
Cumberland, Md.—Cumberland Muni Arpt	No. 1, Amdt. 1	Revised
Fayetteville, N.C.—Grannis Field	No. 1, Amdt. 1	Revised
Key West, Fla.—Key West Int'l Arpt	No. 1, Amdt. 3	Revised
Little Rock, Ark.—Adams Field	No. 2, Amdt. 2, efctv 6 Jun 64	Cancelled
Muskogee, Okla.—Davis Arpt	No. 1, Amdt. 3	Revised
Oshkosh, Wis.—Winnebago Co. Arpt	No. 1, Amdt. 5	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 1, Amdt. 7	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 3, Amdt. 1	Revised
Richmond, Va.—Richard E. Byrd Flying Field	No. 1, Amdt. 16	Revised
Rochester, Minn.—Rochester Muni Arpt	No. 1, Amdt. 7	Revised
West Palm Beach, Fla.—Palm Beach Int'l Arpt	No. 1, Amdt. 5	Revised

VHF OMNIRANGE

Bellingham, Wash.—Bellingham Muni Arpt	No. 1, Amdt. 7	Revised
Bellingham, Wash.—Bellingham Muni Arpt	No. 2, Amdt. 1	Revised
Clarion, Pa.—Rhea Arpt	No. 1, Amdt. 2	Revised
Key West, Fla.—Key West Int'l Arpt	No. 1, Orig.	Revised
Philipsburg, Pa.—Mid-State Arpt	No. 1, Amdt. 8	Revised
Picayune, Miss.—Picayune Muni Arpt	No. 1, Amdt. 5	Revised
Valdosta, Ga.—Valdosta Muni Arpt	No. 1, Amdt. 15	Revised

TERMINAL VOR

Jackson, Tenn.—McKellar Field	TerVOR–2, Amdt. 1	Revised
Liberal, Kans.—Liberal Muni Arpt	TerVOR–35, Amdt. 4	Revised
Oshkosh, Wis.—Winnebago Co. Arpt	TerVOR–36, Amdt. 4	Revised

VOR/DME

Key West, Fla.—Key West Int'l Arpt	VOR/DME–1, Amdt. 1 efctv 27 Nov 65	Cancelled

INSTRUMENT LANDING SYSTEM

Atlanta, Ga.—Atlanta Arpt	ILS–9L, Amdt. 29	Revised
Atlanta, Ga.—Atlanta Arpt	ILS–9R, Amdt. 6	Revised
Atlanta, Ga.—Atlanta Arpt	ILS–9L&R, Amdt. 4	Revised
Atlanta, Ga.—Atlanta Arpt	ILS–33, Amdt. 11	Revised
Boston, Mass.—General Edward Lawerence Logan Int'l Arpt	ILS–4R, Amdt. 17	Revised
Chattanooga, Tenn.—Lovell Field	ILS–20, Amdt. 17	Revised
Chicago, Ill.—Chicago-O'Hare Int'l Arpt	ILS–27, Amdt. 7	Revised
Columbus, Ohio—Port Columbus Int'l Arpt	ILS–10R (Back Course), Amdt. 8	Revised
Fayetteville, N.C.—Grannis Field	ILS–3, Amdt. 1	Revised
Niagara Falls, N.Y.—Niagara Falls Muni Arpt	ILS–28R, Amdt. 9	Revised
Oshkosh, Wis.—Winnebago Co. Arpt	ILS–9, Amdt. 7	Revised
Pittsburgh, Pa.—Allegheny Co. Arpt	ILS–27, Amdt. 15	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS–10L, Amdt. 8	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS–28L, Amdt. 12	Revised
Richmond, Va.—Richard E. Byrd Flying Field	ILS–6, Amdt. 15	Revised
Rochester, Minn.—Rochester Muni Arpt	ILS–31, Amdt. 4	Revised
San Antonio, Tex.—San Antonio Int'l Arpt	ILS–12, Amdt. 10	Revised
Syracuse, N.Y.—Clarence E. Hancock Arpt	ILS–10 (Back Course), Amdt. 12	Revised
West Palm Beach, Fla.—Palm Beach Int'l Arpt	ILS–9, Amdt. 7	Revised

RADAR

Knoxville, Tenn.—McGhee-Tyson Arpt	No. 1, Amdt. 10	Revised
Little Rock, Ark.—Adams Field	No. 1, Amdt. 3	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 1, Amdt. 10	Revised

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→ Austin	Nov 10 66	4/27/67	* Green Bay	May 26 66	12/8/66	Prescott	Sept 15 66	3/30/67
Beaumont	Sept 15 66	3/30/67	Huntington	Aug 18 66	2/2/67	* Rapid City	Jun 23 66	12/8/66
* Bellingham	May 26 66	12/8/66	→ Jacksonville	Nov 10 66	4/27/67	Reno	Jun 23 66	1/5/67
Birmingham	Oct 13 66	4/27/67	Kansas City	Aug 18 66	2/2/67	Roswell	Jun 23 66	1/5/67
Boise	May 26 66	5/25/67	Klamath Falls	Sept 15 66	3/30/67	Sacramento	Jun 23 66	1/5/67
Boston	Sept 15 66	3/2/67	Kootenai	Feb 3 66	2/2/67	Salina	Sept 15 66	3/30/67
→ Burlington	Nov 10 66	4/27/67	La Grande	Jul 21 66	2/2/67	* Salt Lake City	May 26 66	12/8/66
Butte	Jul 21 66	2/2/67	Lake Huron	May 26 66	5/25/67	San Antonio	Jun 23 66	1/5/67
Casper	Oct 13 66	3/30/67	Lake Superior	Aug 18 66	3/2/67	San Diego	Aug 18 66	3/2/67
Charlotte	Oct 13 66	4/27/67	Lake of Woods	Aug 18 66	8/17/67	San Francisco	Jun 23 66	1/5/67
Chattanooga	Aug 18 66	2/2/67	→ Lewiston	Nov 10 66	4/27/67	Savannah	Sept 15 66	3/2/67
* Cheyenne	Jun 23 66	12/8/66	Lincoln	Oct 13 66	3/30/67	* Seattle	Jun 23 66	12/8/66
* Chicago	May 26 66	12/8/66	Little Rock	Jul 21 66	1/5/67	Shreveport	Jun 23 66	1/5/67
Cincinnati	Aug 18 66	2/2/67	Los Angeles	Aug 18 66	3/2/67	→ Sioux City	Nov 10 66	5/25/67
→ Cleveland	Nov 10 66	5/25/67	Miami	Sept 15 66	3/30/67	* Spokane	Jun 23 66	12/8/66
Corpus Christi	Jul 21 66	2/2/67	Miles City	Oct 13 66	4/27/67	Trinidad	Sept 15 66	3/2/67
Dallas	Jul 21 66	2/2/67	* Milwaukee	May 26 66	12/8/66	Tulsa	Oct 13 66	4/27/67
→ Del Rio	Nov 10 66	11/9/67	Minot	Sept 15 66	3/2/67	→ Twin Cities	Nov 10 66	4/27/67
* Denver	Jun 23 66	12/8/66	Mobile	Jul 21 66	2/2/67	Washington, D.C.	Oct 13 66	3/30/67
→ Des Moines	Nov 10 66	4/27/67	→ Mt. Shasta	Nov 10 66	5/25/67	Wichita	Jun 23 66	1/5/67
Detroit	Jul 21 66	1/5/67	Mt. Whitney	Jun 23 66	1/5/67	Williston	Jul 21 66	7/20/67
Douglas	Oct 13 66	10/12/67	Nashville	Jul 21 66	1/5/67	Winston-Salem	Oct 13 66	3/30/67
Dubuque	Sept 15 66	3/30/67	New Orleans	Sept 15 66	3/30/67	Yellowstone Park	Sept 15 66	3/2/67
Duluth	Jul 21 66	7/20/67	New York	Oct 13 66	3/30/67			
* Elko	May 26 66	12/8/66	Norfolk	Sept 15 66	3/2/67	* Hawaiian Is.	Dec 9 65	12/8/66
El Paso	Aug 18 66	3/2/67	→ Oklahoma City	Nov 10 66	4/27/67			

LOCAL CHARTS

Price 30 cents each

Atlanta	Oct 13 66	4/27/67	Honolulu	Jan 6 66	1/5/67	Philadelphia	Oct 13 66	3/30/67
Boston	Sept 15 66	3/2/67	Indianapolis	Aug 18 66	2/2/67	Phoenix	Jul 21 66	1/5/67
Brownsville	Jul 21 66	2/2/67	→ Jacksonville	Nov 10 66	4/27/67	→ Pittsburgh	Nov 10 66	5/25/67
* Chicago	May 26 66	12/8/66	Kansas City	Aug 18 66	2/2/67	St. Louis	Aug 18 66	2/2/67
→ Cleveland	Nov 10 66	5/25/67	Los Angeles	Aug 18 66	3/2/67	San Diego	Aug 18 66	3/2/67
Dallas-Ft. Worth	Jul 21 66	2/2/67	Miami	Sept 15 66	3/30/67	San Francisco	Jun 23 66	1/5/67
Dayton	Aug 18 66	2/2/67	* Milwaukee	May 26 66	12/8/66	* San Juan	Dec 9 65	12/8/66
* Denver	Jun 23 66	12/8/66	Montgomery	Oct 13 66	4/27/67	* Seattle	Jun 23 66	12/8/66
Detroit	Jul 21 66	1/5/67	New York	Oct 13 66	3/30/67	Washington	Oct 13 66	3/30/67
			Norfolk	Sept 15 66	3/2/67			

† DISCONTINUED
→ New Edition published. Obsoletes Earlier Edition on Nov. 10, 1966.
* New Edition will be published prior to Effective date, Dec. 8, 1966.

DATES OF LATEST EDITIONS (Continued)

WORLD AERONAUTICAL CHARTS - UNITED STATES

Price 25 cents each

WAC 62	Feb. 25, 1966
WAC 63	Mar. 23, 1966
WAC 64	Feb. 18, 1966
WAC 76	Oct. 27, 1965
WAC 77	Sept. 28, 1965
WAC 78	Sept. 27, 1965
WAC 117	May 2, 1966
WAC 118	May 26, 1966
WAC 119	July 1, 1966
WAC 135	July 18, 1966
WAC 136	Aug 1, 1966
WAC 137	July 29, 1966
WAC 138	Mar. 7, 1966
WAC 139	Mar. 1, 1966
WAC 186	Mar. 8, 1966
WAC 190	June 20, 1966
WAC 191	May 5, 1966
WAC 192	Jan. 27, 1966
WAC 193	Feb. 18, 1966
WAC 215	Jan. 17, 1966
WAC 216	Sept. 1, 1965
* WAC 217	Sept. 2, 1965
WAC 218	Mar. 15, 1966
WAC 219	Mar. 17, 1966
WAC 262	Apr. 18, 1966
WAC 263	Apr. 13, 1966
WAC 264	Apr. 8, 1966
WAC 265	Sept. 23, 1965
WAC 266	Oct. 5, 1965
WAC 267	Nov. 12, 1965
WAC 268	Mar. 9, 1966
* WAC 269	Sept. 2, 1965
WAC 304	Jan. 18, 1966
* WAC 305	Sept. 3, 1965
WAC 306	Sept. 29, 1965
WAC 307	Oct. 1, 1965
WAC 308	Oct. 29, 1965
WAC 309	Nov. 22, 1965
WAC 310	Jan. 14, 1966
WAC 357	Apr. 21, 1966
WAC 358	May 9, 1966
WAC 359	Oct. 27, 1965
WAC 360	Nov. 1, 1965
WAC 361	Oct. 25, 1965
WAC 362	July 29, 1966
WAC 363	Aug. 2, 1966
WAC 364	Jan. 18, 1966
WAC 404	July 18, 1966
WAC 405	Feb. 11, 1966
WAC 406	Aug. 1, 1966
WAC 407	Feb. 17, 1966
WAC 408	June 9, 1966
WAC 409	July 11, 1966
WAC 410	June 8, 1966
WAC 466	May 12, 1966
WAC 467	May 31, 1966
WAC 468	Dec. 15, 1965
WAC 469	Dec. 21, 1965
WAC 470	Feb. 11, 1966
WAC 471	Mar. 8, 1966
WAC 522	Dec. 23, 1965
WAC 525	June 16, 1966

JET NAVIGATION CHARTS

Price 50 cents each

JN 29	United States Northwest	Apr. 4, 1966
JN 30	United States Northeast	Mar. 10, 1966
JN 44	United States Southwest	Feb. 17, 1966
JN 45	United States Southeast	Jan. 11, 1966

PLANNING CHARTS

o VFR/IFR (Price $2.00)	July 21, 1966
Aeronautical Chart Catalog (Free)	Oct., 1966

AIRCRAFT POSITION CHARTS

Price 30 cents each

3071	North Atlantic	Apr. 14, 1966
3073	Caribbean Sea	June 23, 1966
* 3087	Central Pacific	Sept. 15, 1966
3088	Southwest Pacific	June 6, 1966
3094	North Pacific	Sept. 15, 1966
3096	United States-Honolulu	June 14, 1966
3097	North America-Europe	May 12, 1966

† DISCONTINUED
➡ New Edition published. Obsoletes Chart of Earlier date.
* New Edition will be published in about one month.
o Folded copies available on request.

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		ALABAMA			
50	Birmingham		11-5-66(1) 11-5-66(2)	11-5-66R5	
719	Decatur (Pryor Field)	10-15-66R18			
		ALASKA			
1233	Aniak		10-15-66(1)		
		ARIZONA			
322	Phoenix (Sky Harbor)	10-8-66(1) 10-8-66DME(1) 10-8-66DME(2)	10-8-66(1)		
		ARKANSAS			
637	El Dorado (Goodwin Fld)	10-29-66(1)			
		CALIFORNIA			
519	Arcata-Eureka (Arcata)		10-22-66(1)	10-22-66R31	
67	Burbank (Lockheed Air Term.)	10-29-66(1)	10-29-66(1)	10-29-66R7	
34	Crescent City (Jack McNamara Field)	10-22-66DME(1)* 10-22-66DME(2)*			
5136	Fullerton	10-15-66(1) 10-15-66DME(1)			
5065	Lancaster (Gen. Wm. J. Fox Airfield)	10-15-66(1)			
552	Los Angeles (Van Nuys)	10-29-66RAD255	10-29-66(1)	10-29-66(08)	
882	Montague (Siskiyou Co)		10-29-66(1)		
281	Napa (County)	10-22-66(1)			
373	San Diego (Intnl-Lindbergh Field)	10-8-66R9 10-8-66R27	10-8-66(1)	10-8-66R9 10-8-66R27(BC)	
5179	Torrance	10-8-66(1) 10-8-66DME(1)			
		COLORADO			
87	Colorado Springs (Peterson Field)	11-5-66R35*	11-5-66(1)	11-5-66R35 11-5-66R17(BC)	
		CONNECTICUT			
671	New Haven (Tweed-New Haven)	10-15-66R1			
		DELAWARE			
5392	Middletown (Summit Airpark)	11-5-66(1)*			
458	Wilmington (Greater)	11-5-66(1) 11-5-66DME(1)	10-29-66(1)	10-29-66R1	
		DISTRICT OF COLUMBIA			
443	Washington (National)	10-8-66Visual River Approach			

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		FLORIDA			
102	Cross City	10-13-66(1)			
256	Miami (Opa Locka)	10-15-66DME(1)			
625	St. Petersburg (-Clearwater Intnl)	10-29-66(1)*	10-29-66(1)	10-29-66R17 10-29-66R35(BC)	
		GEORGIA			
27	Augusta (Bush Field)	10-29-66(1)	10-29-66(1) 10-29-66(2)	10-29-66R35	
		HAWAII			
777	Lanai City (Lanai)	10-29-66(1)			
		IDAHO			
68	Burley	10-22-66(1)			
		ILLINOIS			
5056	Centralia	10-29-66(1)			
166	Chicago(-O'Hare Intnl)			10-29-66R4*	
269	Moline (Quad City)		10-22-66(1)	10-22-66R9 10-22-66R27(BC)	
		INDIANA			
513	Evansville (Dress Mem.)	11-5-66(1)			
		IOWA			
976	Fort Dodge	10-29-66(1) 10-29-66DME(1)			
		KANSAS			
676	Dodge City	10-29-66(1)			
212	Kansas City (Fairfax)	10-22-66(1)	10-22-66(1)	10-22-66	
498	Liberal	10-8-66R35			
856	Russell	10-8-66(1)			
		KENTUCKY			
655	Covington (Greater Cincinnati)	10-29-66(1)	10-29-66(1) 10-29-66(2)	10-29-66R36 10-29-66R18 10-29-66R19(BC) 10-29-66R36(BC)	
239	Louisville (Standiford Fld)		10-29-66(1)	10-29-66R1	
		LOUISIANA			
5021	Alexandria (Esler Field)	11-5-66(1) 11-5-66(2)			
288	New Orleans (-Lakefront)	10-29-66(2)			
		MAINE			
993	Rockland		10-29-66(1)		
		MARYLAND			
804	Baltimore (Friendship Intnl)	11-5-66R10 11-5-66R28		11-5-66R28(BC)	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	MASSACHUSETTS				
5039	Beverly		10-29-66(1)		
652	Worcester		10-29-66(1)	10-29-66R33	
	MICHIGAN				
5259	Coldwater (Branch Co Mem)		10-29-66(1)		
5145	Menominee(-County)	10-22-66(1)			
	MISSISSIPPI				
576	Gulfport	11-5-66(1)			
	MISSOURI				
88	Columbia	10-8-66R17 10-8-66R35			
540	Joplin		10-15-66(1)	10-15-66R13	
213	Kansas City	10-22-66(1) 10-22-66R18 10-22-66R3 10-22-66R21	10-22-66(1)	10-22-66R18	
	MONTANA				
192	Helena	10-13-66(1) 10-13-66DME(1)*			
	NEBRASKA				
304	Omaha (Eppley Airfield)	11-5-66(1) 11-5-66DME(1)	11-5-66(1)	11-5-66R14 11-5-66R32(BC)	
	NEVADA				
5163	Ely (Yelland Field)	11-5-66RAD236			
346	Reno	10-29-66(1)	10-29-66(2)	10-29-66R16 10-29-66R34(BC)	
	NEW HAMPSHIRE				
868	Keene (Dillant-Hopkins)	10-29-66(1)	10-29-66(2)		
5036	Nashua (Boire Field)	10-29-66(1)	10-29-66(1) 10-29-66(2)		
	NEW JERSEY				
669	Atlantic City (NAFEC/ Atlantic City (Pomona)	10-29-66R4 10-29-66R31	10-29-66(1)	10-29-66R13	
5155	Manville (Kupper)	10-8-66(1)			
	NEW MEXICO				
12	Albuquerque (Sunport/Kirtland AFB)	10-22-66(1) 10-22-66DME(1)	10-22-66(2)	10-22-66R35 10-22-66R17(BC)	
	NEW YORK				
5339	Buffalo (Airpark)	10-15-66(1)			
65	Buffalo (Greater Buffalo Intnl)		11-5-66(1) 11-5-66(2)	11-5-66R23 11-5-66R5	
5389	Middletown (Randall)	10-15-66(1)*			
610	New York (John F. Kennedy Intnl)	10-15-66Rad-140			
289	New York (LaGuardia)		11-5-66(2)	11-5-66R22	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		NEW YORK CON'T			
382	Schenectady (County)	10-15-66R22*			
5390	Wurtsboro	10-15-66(1)*			
		NORTH CAROLINA			
459	Wilmington (New Hanover Co.)		10-22-66(1)	10-22-66R34	
		NORTH DAKOTA			
51	Bismarck	10-29-66(1)	10-29-66(2)		
144	Fargo (Hector)	10-29-66(1)	10-29-66(1)	10-29-66R35	
			10-29-66(2)	10-29-66R17(BC)	
		OHIO			
5377	Chagrin Falls	10-29-66(1)			
5387	Columbus (Ohio State Univ)		10-15-66(1)		
94	Columbus		10-29-66(1)	10-29-66R28L	
	(Port Columbus Intnl)		10-29-66(2)	10-29-66R10R(BC)	
			10-29-66(3)	10-29-66R10L	
421	Toledo	10-8-66(1)			
184	Toledo (Express)	10-8-66(1)	10-8-66(1)	10-8-66R7	
		10-8-66DME(1)		10-8-66R25(BC)	
		OKLAHOMA			
5140	Duncan (Halliburton Fld.)	10-8-66(1)			
		OREGON			
140	Eugene(Mahlon Sweet)		10-29-66(1)	10-29-66R16	
251	Medford (-Jackson CO)	11-5-66(1)		11-5-66R14	
		11-5-66DME(1)			
		11-5-66DME(2)			
929	North Bend	11-5-66DME(1)	10-22-66(1)		
		10-22-66(1)			
		PENNSYLVANIA			
926	Bradford (McKean Co.)	10-22-66(2)			
		10-22-66DME(1)			
5346	Galeton (Cherry Springs)	11-5-66(1)			
320	Philadelphia (Intnl)		10-29-66(1)	10-29-66R9	
570	Pittsburgh (Greater)		11-5-66(4)		
627	Reading (Greater Spaatz)	10-8-66(1)		10-8-66R36	
5279	Wellsboro (Grand Canyon State)	10-29-66(1)			
		SOUTH DAKOTA			
202	Huron (Howes)		10-15-66(1)	10-15-66R12	
877	Rapid City	11-5-66(1)			
		11-5-66DME(1)			
		TENNESSEE			
5062	Jackson (McKellar Fld)	10-22-66R2*			

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		TEXAS			
5268	Del Rio (Intnl.)	10-8-66(1)	10-8-66(1)		
164	Galveston (Scholes Fld.)	10-15-66(1)	10-15-66(1)		
258	Midland (Air Terminal)	11-5-66(1) 11-5-66DME(2)	11-5-66(1)	11-5-66R10 11-5-66R28(BC)	
5391	Perryton		10-29-66(1)*		
369	San Antonio (Intnl)	11-5-66(1)	11-5-66(1)		
372	San Antonio (Stinson Mun)	10-29-66(1)			
		UTAH			
365	Salt Lake City (Mun.#1)	10-15-66(1) 10-15-66DME(1) 10-15-66DME(2) 10-15-66DME(3)	10-15-66(1)	10-15-66R34L 10-15-66R16R(BC)	
		VIRGINIA			
5084	Dublin (New River Valley)	10-15-66(2)			10-15-66(1)
291	Norfolk	10-29-66R22*			
347	Richmond (Byrd Field)	10-15-66R20* 10-15-66R24 10-15-66R15 10-15-66R33			
		WASHINGTON			
5107	Bremerton (Kitsap Co)		10-29-66(1)		
		WISCONSIN			
262	Milwaukee (Gen. Mitchell Fld)		10-8-66(2)	10-8-66R7R 10-8-66R19(BC)	
		WYOMING			
687	Rawlins		11-5-66(1)		
		PACIFIC ISLANDS			
2162	Wake Island	10-29-66(1) 10-29-66(2)	10-29-66(1) 10-29-66(2)	10-29-66R28(BC) 10-29-66R10	
		PUERTO RICO			
5248	Ponce (Mercedita)	10-29-66(1)			
		RADAR			
Radar	Pages 1-18	10-66			

*NEW CHART

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

PART 3A

EFFECTIVE 0501Z 10 NOVEMBER 1966

To 0501Z 24 NOVEMBER 1966

NOTICES TO AIRMEN

Part 3-A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necessarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

ANNISTON RDO: Nov 10, RBn will be without voice til aprxly Dec 15.

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and lndgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

AUBURN, OPELIKA MUNI ARPT: Tmpry ctl Twr. will be in opern 1000–1800C Nov 12. Ident: Auburn Twr. Freq: 121.3, 121.5 and receive 122.5. Flight Planning and Weather Briefing will also be avbl.

BIRMINGHAM MUNI ARPT: Rnwy 5–23 clsd 0445–1300Z daily until aprxly Nov 15 due constr.

BRANTLEY MUNI ARPT: Clsd UFN.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft.

ST. ELMO ARPT: Clsd for constr UFN.

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd. VFR acft ctc Craig Twr on 126.2 for tfc and lndg advisories.

ARIZONA

BAGDAD ARPT: Clsd due constr til aprxly Dec 12.

CAMERON ARPT: Potholes near centerline of rnwy 4–22, mrkd with flagged stakes.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PHOENIX-SKY HARBOR MUNI ARPT: E 2350′ rnwy 8R–26L clsd for lndgs dalgt hrs W 7950′ avbl lndg days. W 8850′ avbl tkof and lndg ngts only. W 9600′ avbl tkof dalgt hrs. Rnwy shoulder E of 8850′ portion rnwy 8R–26L unsafe. Eqpmt on or adjacent to rnwy and parallel txwys due constr., lndg/tkof length may vary, ctc twr for latest changes.

SCOTTSDALE MUNI ARPT: Clsd due constr until aprxly April 20, 1967.

WILLIAMS MUNI ARPT: Rnwy 18–36 clsd UFN.

ARKANSAS

FAYETTEVILLE, DRAKE FLD: Nov 12 a tmpry ctl twr will be in opern atop main hangar 0900–1800 CST. Freq: 120.9, 121.5 receive only 122.7.

FAYETTEVILLE RDO: FSS voice comms freqs 123.6, 126.7, 121.5 mc unusable beyond 25 NM below 5500′ MSL 240–310°.

FLIPPIN ARPT: Clsd UFN due constr.

FORDYCE MUNI ARPT: Rnwy lgts inop UFN.

LITTLE ROCK RDO: Nov 15, RBn will be shutdown til aprxly Nov 19 for relctn to OM site. Ident to be changed to "LI."

RUSSELLVILLE MUNI ARPT: Clsd until aprxly Jan 3, 1967 due constr.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BLUE CANYON ARPT: Clsd UFN.

BORREGO SPRINGS, BORREGO VALLEY-SAN DIEGO COUNTY ARPT: Rotating bcn inop UFN.

CARPINTERIA, PARSONS ARPK: Clsd to all operns excpt helicopters until aprxly Jan 1, 1967 for rnwy resurfacing and constr.

DAGGETT FSS: VHF/DF unusable beyond 40 nmi below 9000′ MSL from 025–090° 215–330°.

LAKE TAHOE RDO: VOR shutdown til aprxly Dec 16.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline.

SAN DIEGO COUNTY–GILLESPIE FLD: Constr in progress until aprxly March 1967. Rnwy 17–35 tmprly shortened.

SAN DIEGO INTL-LINDBERGH FLD TWR: ILS glide slope shutdown til aprxly Dec 15 for relctn.

SAN DIEGO-LINDBERGH RDO: VOR inop dalgt hrs only til Dec 15.

SAN FRANCISCO INTL ARPT: Constr on E side of rnwy 1R runup mat dalgt hrs.

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

SAN JOSE MUNI ARPT: Displaced threshold area clsd to acft over 12,500 lbs GWT.

SAN JUAN, CAPISTRANO ARPT: Clsd until aprxly Dec 15.

SAN LUIS OBISPO RDO: Nov 14, VOR will be shutdown til aprxly Nov. 18.

VISALIA MUNI ARPT: Tmpry 1135′ displaced threshold rnwy 30 reducing landing length to 4760′. 30′ crane operg daylgt hrs, 1300′ SE of displaced threshold.

COLORADO

CORTEZ, CORTEZ–MONTEZUMA COUNTY ARPT: Clsd UFN due constr.

DENVER, STAPLETON INTL ARPT: Apch lgts rnwy 35 inop.

GUNNISON RDO: DME shutdown until aprxly Nov 11. VOR shutdown daylgt hrs only until aprxly Nov 10.

LOVELAND-FT. COLLINS ARPT: Rnwy 6–24 clsd til aprxly October 1967.

TRINIDAD RDO: VHF/DF unusable beyond 40 mi below 8000′ MSL 280–120°, 9000′ MSL 120–135°, 15,000′ MSL 135–175°, 17,500′ MSL 175–220°, 14,500′ 220–280°.

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large acft including jets, also clsd for ngt operns.

HARTFORD, BRAINARD FLD: Rnwy 10–28 under constr, eqpmt adj to and on rnwy 2–20 intermittently until aprxly Nov.

WINDSOR LOCKS, BRADLEY FLD: Rnwy lgts rnwy 1–19 inop. Centerline and touch down zone lgts rnwy 6 inop til aprxly Nov 13.

WINDSOR LOCKS, BRADLEY FLD TWR: Glide slope will be shutdown for relctn.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P–56. See Washington, D.C. chart under Special Notices–Area in Part 3 for location.

WASHINGTON, DULLES INTERNATIONAL ARPT: Rnwy 1R will be shut down on day-to-day basis excp when prevailing winds favor apchs from S and wea conditions below circling minimums of 500′ and 1½ mi.

WASHINGTON NATIONAL ARPT: Delays may be encountered at the arpt due to serious congestion of passenger, parking and ground facilities. The Federal Aviation Agency asks the cooperation of all pilots in reducing this congestion and delay. Whenever practicable, pilots are urged to use other airports serving the Washington Metropolitan Area.

WASHINGTON NATL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying civilian or military dignitaries VIP codes 1 or 2. (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C–140) (2) Sabreliner (T–39) (3) Morane Sauliner 760 (4) Jet Commander (Aero Commander) (4) Learjet (Lear Jet Co.) (6) Hawker Siddley DH–125 (7) Fan Jet Falcon (8) Caravelle (9) DC–9 (10) BAC–111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet acft described in paragraph B (8) through (11) may not be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda. Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

WASHINGTON NATIONAL ARPT: Rnwy 15–33 clsd SS–SR UFN.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: HAITI, private acft landing or overflying Haiti must furnish 48 hours advance notice and a flight plan must be filed. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

GAINESVILLE MUNI ARPT: Tmpry ctl twr will be in opern Nov 12 and Nov 26, 0800–1900 LST. Freq: 119.7 transmit/receive, 122.5 receive, only. Acft with no radio watch for lgt gun signal.

LAKE CITY MUNI ARPT: Constr vcnty rnwy 10–28 for installing lgts until aprxly Nov 15. Rnwy 1–19 clsd.

MIAMI: Due to the lack of adequate inter center communications btn the Miami Center and adjacent CTA/FIR's and a continued increase in IFR and DVFR traffic btn points in Central America/Caribbean area and Florida, pilots on DVFR flights are advised to report to Key West FSS, Miami International FSS, Nassau Radio or Miami Aeronautical Radio Inc (ARINC) prior to penetrating the Gulf of Mexico Atlantic Coastal ADIZ: Pilots on IFR flights are advised to report to Miami Center, Miami International FSS Miami Aeronautical Radio Inc (ARINC), Key West FSS or Nassau Radio prior to entering the Miami FIR. Miami Center frequencies are: East of 79° West, 125.7/307.9; West of 79° are: 120.3/118.9. 319.1, 124.4/281.4, 132.7/306.9, 127.7/362.3. Adherence to this procedure enhances identification and minimizes the possibility of being intercepted.

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

MIAMI, OPA LOCKA ARPT: New N/S rnwy 3300 x 100 with parallel txwy under constr 700′ W of existing

N/S rnwy. New E/W rnwy 3500 x 100′ with parallel txwy under constr adj to S end of existing rnwy 36.

PENSACOLA MUNI ARPT TWR: ILS glide slope shut down UFN. Apch lgt sys rnwy 16 inop.

PENSACOLA MUNI ARPT: Constr apch ends rnwys 16 and 25 dalgt hrs.

TALLAHASSEE RDO: During shutdown of TLH VOR portion of VORTAC airways and intersections are defined by brgs from TLH Rbn located at VORTAC site instead of radials. MEAs remain unchanged. Blountstown Int is changed to MAI VOR 139 rad and PFN VOR 062 rad. RBn comsnd. Ident: TLH, Freq: 358, Class: HW, collocated with TLH VORTAC to serve during VOR outage. Ctld by Tallahassee FSS. Unusable at ngt from Lobster, Fla Int to Scallop Int.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtg constr in progress adj rnwy 9–27 and SE end rnwy 13–31 til aprxly Nov 1966.

WEST PALM BEACH, PALM BEACH COUNTY PARK ARPT: Rnwy 9–27 and 15–33 clsd. Rnwy lgts inop UFN.

GEORGIA

ALMA, BACON COUNTY ARPT: Clsd to all operns til aprxly Dec 15 due constr.

ATHENS MUNI ARPT: Tmpry twr will be in opern 1000–1800 EST on Nov 26. Freq: transmit and receive: 120.4, 121.5, receive only 122.5.

COLUMBUS MUNI ARPT: Rnwy 16–34 clsd and rnwy 11–29 decreased to 3500′ due constr til aprxly Nov 15.

JEFFERSON, JACKSON COUNTY ARPT: Clsd to all operns for unknown duration due constr.

MONROE MUNI ARPT: Clsd for constr.

NORCROSS RDO: Nov 15, VOR will be shutdown until aprxly Nov 17. Nov 14, DME will be shutdown until aprxly Nov 26 for antenna replacement.

SAVANNAH, TRAVIS FLD: Rnwy 23 clsd til aprxly Nov 15.

IDAHO

BRUCE MEADOWS USFS ARPT: Closed til spring 1967.

POCATELLO MUNI ARPT: Rnwy 16–34 lgts inop UFN.

ILLINOIS

ALTON, CIVIC MEMORIAL ARPT: Constr apch end rnwy 29 til aprxly Jan 15, 1967.

CHICAGO–HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-O'HARE INTL ARPT TWR: ILS lclzr, glide slope rnwy 32R and glide slope rnwy 14L shutdown until aprxly Nov 23. ILS lclzr rnwy 32L front crs unusable beyond 35° S side of crs. PAR apch rnwy 14L shutdown until aprxly Nov 23.

CHICAGO–O'HARE INTL ARPT: Constr on NW end of rnwy 14L–32R.

EAST ST. LOUIS, LAKEVIEW ARPT: Clsd UFN.

GLENVIEW RDO: RBn, ident NBU inop UFN.

MOLINE, QUAD CITY ARPT TWR: ILS glide slope and lclzr serving rnwy 9 shutdown intermittently on day-by day basis.

PEOTONE RDO: Nov 15, VOR will be shutdown til aprxly Nov 18.

QUINCY MUNI-BALDWIN FLD: Rnwy lgts rnwy 17–35 inop UFN.

QUINCY MUNI-BALDWIN FLD TWR: ILS lclzr and glide slope serving rnwy 3 shutdown til aprxly Nov 16.

ROCKFORD RDO: Nov 14, DME will be shutdown, Nov 15, VOR will be shutdown for antenna replacement to resume opern Nov 18.

WAUKEGON MEML ARPT: First 400′ rnwy 5 clsd for constr, usable length 3100′.

INDIANA

BLOOMINGTON RDO: VOR shutdown dalgt hrs VFR until aprxly Nov 10.

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope and MM rnwy 21 shutdown til Dec due rnwy constr.

EVANSVILLE, DRESS MEML ARPT: NE end rnwy 3–21 unusable, usable length 5427′.

GARY MUNI ARPT: SE end rnwy 12–30 under constr until aprxly Nov 1, monitor unicom freq.

MUNCIE, DELAWARE COUNTY ARPT: Rnwys and txwys will be clsd and opened as required for resurfacing and painting. Ctc IND area rdo or MIE twr for daily status of rnwys. Unlgtd sod rnwy 9–27 avbl for lgt acft.

IOWA

BLOOMFIELD MUNI ARPT: Clsd until Nov 15 for constr.

CLARION MUNI ARPT: Clsd to transient acft UFN.

DES MOINES MUNI ARPT TWR: ILS lclzr and glide slope will be shut down dalgt hrs Mon–Sat until aprxly Nov 19.

EMMETSBURG MUNI ARPT: Clsd UFN.

FAIRFAX, FALTIS ARPT: Clsd til aprxly Dec 1, rnwy repairs.

IOWA CITY MUNI ARPT: Tmpry twr in opern Nov 12. Freq: 120.7, 122.5R. Watch for light gun signals.

WATERLOO MUNI ARPT TWR: ILS serving rnwy 12 shutdown UFN for relctn of lclzr.

WATERLOO MUNI ARPT: Due constr 600′ SE end of rnwy 12–30 clsd UFN, usable length of rnwy 4800′ threshold lgts will be displaced 600′.

✓WAVERLY, "K" FLD: City name changed to Denver.

KANSAS

FORT SCOTT MUNI ARPT: Rnwy 11–29 clsd UFN.

GOODLAND RDO: VHF/DF unusable below 6000′ MSL beyond 40 NM.

HAYS MUNI ARPT: Clsd until aprxly Nov 17, for constr.

HUTCHINSON RDO: Nov 21, DME will be shutdown til aprxly Nov 23 for antenna replacement.

RUSSELL MUNI ARPT: Arpt clsd ngt operns til aprxly Dec 15.

KENTUCKY

GREENVILLE, MUHLENBERG COUNTY ARPT: Rotating bcn inop UFN.

LEXINGTON, BLUE GRASS FLD: Rnwy 4–22 will be clsd nightly 2300–0700 EST, for overlay rnwy. Rnwys 15–33 and 8–26 clsd periodically during constr paving intersections.

LOUISVILLE, STANDIFORD FLD: Rnwys 6-24 and 11-29 clsd until aprxly Nov 15 due constr.

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope (rnwy 29) shut down UFN due rnwy constr. Lclzr and ASR will be shut down intermittently on day by day basis.

LOUISIANA

✓NATCHITOCHES MUNI ARPT: Rnwy lgts permly inop.

NEW ORLEANS LAKEFRONT ARPT: Mound of sand N end of rnwy 35 1200′ long 800′ wide 7′ high lgtd and mrkd. Rnwy 17 528′ tmpry displaced threshold remains til aprxly Dec 31, 1966. 175′ boom will be operg intermittently in area of apch end of rnwy 4 aprxly 300′ W of rnwy 4 til aprxly Jan 15, 1967. Rnwy 4-22 clsd excpt for tkof to NE til aprxly Jan 15, 1967. Rnwy 4 threshold displaced 700′ NE mrkd and lgtd. Rnwy length btn threshold reduced to 2500′. Rnwy 31 threshold displaced 637′ mrkd and lgtd. Rnwy length btn threshold reduced to 3163′. Sandbar extends into Lake Ponchartrain aprxly 100′ N of apch end of seaplane ramp. Use extreme caution apchg ramp.

✓NEW ORLEANS INTL (MOISANT FLD) ARPT: First 330′ of rnwy 5 permly clsd. Useable length 4688′.

NEW ORLEANS INTL ARPT (MOISANT FLD): Rnwy 1 threshold lgts moved 150′ N, rnwy length reduced to 6850′, use caution lndg rnwy 1 apch end aprxly 18 inches lower than rnwy level.

MAINE

MILLINOCKET MUNI ARPT: Acft using rnwys 16-34 and 11-29 not visible to each other til apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4-22 and 15-33 not visible to each other until apchg intersection.

MARYLAND

CUMBERLAND MUNI ARPT: Extensive glider activity week ends and holidays.

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200′.

SALISBURY-WICOMICO COUNTY ARPT: Rnwy 4-22 remains clsd til aprxly Nov 15.

TOWSON: 10′ balloon ascending 1000′ per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

✓BOSTON, LOGAN INTL ARPT TWR: Nov 10, LMM rnwy 4R freq will be changed to 236.

FITCHBURG RDO: RBn inop indefinitely.

✓NORTH ADAMS—HARRIMAN ARPT: Change arpt name to North Adams Municipal (Harriman).

ORANGE MUNI ARPT: Summer operns in efct Apr 1-Dec 15. Use paved areas only. All rnwys open.

SUDBURY: Moored balloon, surface to 3000′ lctd lat 42°25′30″N long 71°23′30″W. Grounded and returned to same lctn every hour for instrument reading 1200Z til SS. Cable mrkd with small balloons. VFR conditions only.

MICHIGAN

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900′ smoke stack 3 mi NW.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200-1800 EST within 1 mi radius of lat 45°58′00″N long 83°47′30″W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

LITCHFIELD RDO: VORTAC shutdown until aprxly Nov 11.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000′ AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000′ AGL.

OWOSSO CITY ARPT: Obstn lgts inop on 210′ twr lctd 5 mi SE.

SAULT STE MARIE: Daily blasting excp Sun btn hrs of 1500-1630 CST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)

TROY-JIM ROBBINS ARPT: Rnwy 18L-36R clsd due constr N end UFN.

MINNESOTA

✓BOWSTRING MUNI ARPT: Changed to Deer River, Bowstring Township Arpt.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt. also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

LITTLE FALLS MUNI ARPT: NW/SE rnwy clsd for constr UFN. Hvy equipment may cross N/S rnwy.

MINNEAPOLIS ARTCC: Enroute radar service is provided within the geographical boundarys of its area of positive ctl, in both the low and high altitude structures, excpt as noted below: (1) East of 91° long-radar weather advisory service is not avbl. (2) West of 93°45′ long-radar weather advisory service and limited radar problem solving is only avbl from 0800-2300 CST, Mon-Fri.

NISSWA, HEYWOOD GULL LAKE ARPT: Clsd UFN.

MISSISSIPPI

HATTIESBURG MUNI ARPT: Rnwys 13–31 and 8–26 clsd until Feb 1967.

MISSOURI

✓AURORA MUNI ARPT: E/W rnwy permly clsd.

MACON ARPT: Clsd for constr.

KANSAS CITY MUN ARPT TWR: ILS lclzr serving rnwy 18 shutdown daylight hrs VFR only til aprxly Jan 15, 1967 for relctn.

KANSAS CITY-MID CONTINENT INTL ARPT: Major constr on all rnwys and txwys UFN.

ST. LOUIS, LAMBERT—ST. LOUIS ARPT: NW 2500′ rnwy 12R–30L clsd 24 hrs daily. 6′ barricades on clsd portion of rnwy flagged. Apch lgts rnwy 12R inop.

MONTANA

BUTTE, SILVER BOW COUNTY ARPT: Rnwy 2–20 lgts inop UFN.

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

JORDAN ARPT: Clsd when temperature 90° or higher due oil seepage.

NEBRASKA

✓BRULE, BEAL ARPT: Name changed to: Beals Arpt.

FAIRMONT, STATE ARPT: Clsd UFN due rnwy repairs.

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56′50″N, long 98°31′15″W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000′ AGL Mon-Fri 1400–2230Z UFN.

GRAND ISLAND MUNI ARPT: Rnwy 12–30 clsd until aprxly Nov 20.

SIDNEY MUNI ARPT: Constr NW end rnwy 12–30 UFN; 400′ NW end tmprly clsd; threshold lgts rnwy 12 displaced 400′ SE.

✓STROMSBURG ARPT: Name changed to Stromsburg Muni Arpt.

NEVADA

LOVELOCK, DERBY FLD: One or two moored balloons 12′ in diameter in enshrouding parachute will be operating about 17 nmi W from 8AM to 9PM local standard time until March 31, 1967. Surface to 6700′ MSL or 2500′ above test site. Balloons equipped with red flashing lights at ngts.

NEW HAMPSHIRE

LANCASTER, GRABOR ARPT: Clsd UFN—constr.

NEW JERSEY

ATLANTIC CITY, NAFEC/ATLANTIC CITY (POMONA) ARPT: VASI lgts operg intermittently rnwy 13. Not authorized for civil use. Rnwys 4–22, 8–26 clsd til aprxly Jan 3, 1967.

LAKEWOOD ARPT: Avoid area of chicken farm lctd on 240° mag brg 6000′ from rnwy.

OCEAN CITY MUNI ARPT: Open dalgt operns only. No refueling or other services available due constr UFN.

READINGTON, SOLBERG–HUNTERDON ARPT: Rnwys 1–28, 13–31, 14–32 and all grass areas closed.

NEW MEXICO

CARLSBAD: An abandoned arpt lctd adj to VOR bldg; strip dangerous—should not be used.

DEMING MUNI ARPT: 1600′ rnwy lgts on W end rnwy 8–26 inop. Usable length 8100′ day; 6500′ ngt.

RUIDOSO MUNI ARPT: 700′ high terrain N. Tkofs and Go arounds hazardous on rnwy 36. All tkofs S regardless of winds.

NEW YORK

ALBANY COUNTY ARPT: 500′ S end rnwy 1–19 unusable due constr.

ALBANY COUNTY ARPT TWR: ILS lclzr and glide slope shut down til aprxly Nov 15 due rnwy constr.

BUFFALO, GREATER BUFFALO INTL ARPT: Last 600′ of touchdown lgtg rnwy 23 inop.

BUFFALO, GREATER BUFFALO INTL ARPT TWR: ILS OM rnwy 23 inop.

CICERO, MICHAEL FLD: Arpt clsd all transient acft excp tmpry NW/SE strip N of clsd rnwy 9–27 emgcy only.

HORNELL MUNI ARPT: Maintain 2500′ MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

ISLIP, LONG ISLAND-MacARTHUR ARPT: Neon ladder apch lgt sys inop. Standard apch lgt sys, with sequence flashers will be comsnd June 1, 1967.

ITHACA RDO: Tmpry Rbn operg til aprxly Dec 15. Lctd lat 42°29′21″, long 76°27′38″. Ident: ITH. Freq: 388 kc. Mag var: 10°W. Class MHW. VOR shut down til aprxly Nov 11.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constrn N end rnwy.

MONTAUK, SKY PORTEL ARPT: No fuel or svcs until aprxly June 1, 1967.

NEW YORK, LA GUARDIA ARPT: Due to constr rnwy 13 lndg and take off length 5971′; rnwy 31 take off length 5971′.

NEW YORK, LA GUARDIA ARPT: Restriction for turbojet acft on rnwys 4 and 22 discontinued. Disregard Remarks in AIM, Part 2, Airport Directory.

POUGHKEEPSIE, DUTCHESS COUNTY ARPT: Rnwy lgtg btn 2400–0600 (lcl time) by pilots req on 126.7, 123.6 mc.

ROCHESTER-MONROE COUNTY ARPT: Cntrline lgts rnwy 4–22 inop UFN.

STORMVILLE ARPT: Constr in progress til aprxly Nov. 16.

WHITE PLAINS, WESTCHESTER COUNTY ARPT: Apch lgt sys 2705′ from end rnwy 16.

NORTH CAROLINA

ASHEBORO MUNI ARPT: Clsd til aprxly Jan 25, 1967.

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500′ pattern from the west.

NORTH DAKOTA

BEULAH ARPT: Power line across SE end NW/SE rnwy.

FARGO, HECTOR FLD: First 1000′ rnwy 17–35 clsd til aprxly Nov 15 due constr. Usable length 8151′. Rnwy 17 threshold lgts displaced 1000′.

GRAND FORKS INTL ARPT: Constr rnwy 17–35. Threshold displaced first 600′ rnwy 35. REIL inop. Usable length rnwy 35 reduced to 4700′ for lndgs and 5300′ avbl tkofs til aprxly Nov 15.

MINOT RDO: VOR will be shut down dalgt hrs when ceiling is 3000′ or above Nov 14 thru Nov 25, for tune-up new VOR.

MINOT, FLYING RANCH ARPT: Lgtg facils inop.

NEWTOWN ARPT: New arpt clsd; under constr.

OHIO

ALLIANCE, BARBER ARPT: Rnwy 18–36 clsd N of int, tmpry threshold mrkd with tires.

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

CINCINNATI, GREATER CINCINNATI ARPT: New rnwy 9R–27L under constr til aprxly Dec 1. Abandoned rnwy 4–22 used as txwy.

CLEVELAND, CUYAHOGA COUNTY ARPT: Constr in progress apch area rnwy 23 til aprxly Dec 10. First 500′ rnwy 23 clsd. REIL inop rnwy 23 UFN.

CLEVELAND RDO: VORTAC will be shut down Nov 15 til aprxly Nov 18 for maint.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constr SE end rnwy 5 until fall 1966.

DAYTON, JAMES M COX–DAYTON MUNI ARPT: Constr extending N end rnwy 18–36 in progress for aprxly one year. Rnwy will be clsd intermittently til June 1967.

DAYTON RDO: ILS OM and LOM will be shut down for relctn until aprxly Nov 15.

ST. CLAIRSVILLE, ALDERMAN FLD: Rotating bcn inop.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400–2300 UFN.

OKLAHOMA

FREDERICK MUNI ARPT: Mil jet acft operg in tfc patn dalgt hrs UFN. AAS avbl on 120.8 mc.

✓HUGO, NASH ARPT: Name changed to: Nash Muni Arpt.

NORMAN, WESTHEIMER FLD: Tmpry ctl twr in opern Nov 12 and 24. Freqs: 123.9, 121.5 tsmtg and rcvg. 122.5 rcvg only. Lgt gun signals avbl.

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: Rnwy 17L–35R clsd all operns til aprxly Nov 15.

OREGON

CONDON ARPT: Rotating bcn and rnwy lgts inop UFN.

MEDFORD RDO: DME will be shut down Nov 14 until aprxly Nov. 23.

NORTH BEND ARPT: About 12 nmi NNE a moored aluminum colored V shaped balloon 75′ long, approximately 40′ diameter being used in logging operns during dalgt hrs, maximum alt 1000′ MSL. During hrs darkness will be lowered to 100′ AGL.

ONTARIO MUNI ARPT: Rnwy 6–24 clsd UFN.

PENDLETON RDO: Nov 14, DME will be shut down for mod til aprxly Nov 23.

PENNSYLVANIA

BUTLER, GRAHAM FLD: Extensive glider operns wknds and occasionally during week. Operns will take place off to side of rnwy UFN.

COATESVILLE, CHESTER COUNTY AREA ARPT: Constr in progress til aprxly Jan 1967.

CONNELLSVILLE ARPT: Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

MILTON ARPT: Unicom, fuel, services, rnwy lgts not avbl until aprxly June 67.

MONONGAHELA, THOMPSON MEML ARPT: Constr until aprxly Dec 15.

MT. POCONO ARPT: First 200′ rnwy 13–31 unusable due rnwy mrkg.

PITTSBURGH GREATER PITTSBURGH ARPT TWR: ILS lclzr and glide slope rnwy 28L inop UFN.

PITTSBURGH, GREATER PITTSBURGH ARPT: First 500′ rnwy 10R clsd due constr until aprxly Dec 15.

ST. MARYS MUNI ARPT: Rnwy extension in progress til aprxly Feb 1967. Rnwy will remain open for use.

TITUSVILLE ARPT: Clsd due constr UFN.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000′ from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.–Thornhurst–Wilkes-Barre.

WILLIAMSPORT RDO: Nov 15 DME will be shut down for mod til aprxly Nov 17.

RHODE ISLAND

PROVIDENCE, GREEN ARPT: Rnwy 16–34 clsd 1100–2300 Mon–Fri UFN.

SOUTH CAROLINA

CALHOUN FALLS, HESTER MEML ARPT: First 1000′ rnwy 28 clsd; arpt clsd ngts UFN.

GREENVILLE MUNI DOWNTOWN ARPT: Rnwy 36 threshold displaced 1800′ N; rnwy 18 clsd lndg and tkof dalgt hrs. Rnwy 36 tkof only dalgt hrs Mon-Fri.

MONCKS CORNER MUNI ARPT: Clsd due constr UFN.

SOUTH DAKOTA

BRITTON MUNI ARPT: N/S rnwy clsd until aprxly July 1, 1967 due constr.

HURON, HOWES MUNI ARPT: N/S rnwy clsd until aprxly May 1, 1967.

PIERRE MUNI ARPT: Rnwy 7–25 clsd. Rnwy 17–35 clsd from int rnwy 12–30 to S end, 5000′ avbl; clsd to acft over 10,000 lbs. Rnwy lgts inop.

REDFIELD ARPT INC: Clsd until aprxly Dec 1.

TENNESSEE

BRISTOL, TRI-CITY RDO: ILS glide slope shut down til aprxly Nov 1 for maint.

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constr.

CROSSVILLE MEML ARPT: Clsd ngt operns until aprxly Dec 14 due to constr.

HALL, LAUDERDALE COUNTY ARPT: Abandoned arpt 1 mi NW. Unmrkd and extremely hazardous—not to be used for lndgs or tkofs.

LEWISBURG, ELLINGTON ARPT: Rotating Bcn inop

MILLINGTON, SHELBY COUNTY ARPT: Rnwy 9-27 clsd until aprxly Dec 1.

ROGERSVILLE, STIPES STRIP: Clsd UFN.

TEXAS

AUSTIN, MUELLER MUNI ARPT: Rnwy 12L-30R and 16L-34R clsd til aprxly Dec. 26.

BROWNWOOD MUNI ARPT: Rnwys 3-21 and 17-35 clsd UFN.

BRYAN, COULTER FLD: Rnwy 13-31 clsd for hard surfacing. During constr rnwy 4-22 shortened to 1900' and 17-35 to 2100'.

COTULLA MUNI ARPT: Use bladed areas only.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

EL PASO INTL ARPT: Rnwy 8 restricted to dptrs, rnwy 26 restricted to arvls; rnwy 8-26 clsd until aprxly Dec 1.

ELMDALE ARPK: New arpt clsd to all operns. Under constr 3 mi NE Abilene Muni Arpt.

FAIRFIELD, WATSON ARPT: Rnwy lgts inop UFN.

FORT WORTH, GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD: Rnwy 13-31 clsd til aprxly Nov 11 for repairs.

HONDO MUNI ARPT: Jet trng acft touch and go dalgt VFR Mon-Fri.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1-19 clsd UFN.

MINERAL WELLS ARPT TWR: Mobile ctl twr comsnd pending completion of perm twr constr about Dec 1. Opers 1200-0600Z Mon-Fri, excp holidays. Freqs: 119.0, 121.7, 122.5R, 124.15.

NEW BRAUNFELS, CLEAR SPRING AUX ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200' MSL until military tfc is clear. Use rnwys only for lndgs.

SAN ANTIONIO INTL ARPT: Constr thru Sep 1967 extending rnwy 3-21. Rnwy 21 displaced 750' S for lndg. Rnwy 17-35 clsd.

SAN ANTONIO INTL ARPT TWR: ILS (rnwy 3) shut down UFN due rnwy constrn.

SULPHUR SPRINGS MUNI ARPT: Bcn and rnwy lgts inop UFN.

TEMPLE, DRAUGHON-MILLER ARPT: Rnwy 11-29 clsd UFN.

WICHITA FALLS, SHEPPARD AFB/WICHITA FALLS AIR TRML: N 3000' rnwy 17-35 clsd.

UTAH

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

VIRGINIA

ALEXANDRIA, WASHINGTON-VIRGINIA ARPT: Runway 12-30 clsd intermittenly UFN due constr. Arpt clsd ngt operns.

BROOKE RDO: Nov 28, VORTAC will be shut down for mod until aprxly Dec 5.

CHARLOTTESVILLE-ALBEMARLE ARPT: Rnwy lgts tmprly low intensity. Strobe, and REIL inop. Ctc FSS prior to lndg.

CLIFDALE RDO: VOR unusable beyond 30 nmi and above 18,000' til aprxly March 31, 1967.

DUBLIN, NEW RIVER VALLEY ARPT: First 200' rnwy 23 unusable due rnwy extension in progress UFN.

FELKER RDO: VOR unusable excp for VFR practice use UFN.

GORDONSVILLE MUNI ARPT: Rotating bcn inop UFN.

HERNDON RDO: VORTAC will be shutdown thru Nov 9.

LEESBURG, GODFREY FLD: Hvy constr equipment operg within 100' and parallel to N end rnwy on left side til aprxly Nov.

WASHINGTON

MARYSVILLE, CHADWICK SEAPLANE BASE: Clsd UFN.

PASCO, TRI-CITIES ARPT: Rnwy 2L-20R clsd UFN due constr edge of rnwy. Rnwy 11L-29R for ngt operns durg constr.

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800-1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

WALLA WALLA, CITY COUNTY ARPT: Acft prohibited from flying over munition storage area lctd 2500' left of apch end rnwy 20.

WEST VIRGINIA

BERKELEY SPRINGS, POTOMAC ARPK: Clsd to ngt operns. No acft over 17,000 lbs GWT permitted UFN.

HUNTINGTON RDO: Rbn inop UFN.

WHITE SULPHUR SPRINGS, GREENBRIER ARPT: Hazardous ridge across rnwy, 200' from apch end rnwy 26. Touchdown on this ridge prohibited.

WISCONSIN

BEAVER DAM ARPT: Unsafe for lndg due rufness sod UFN.

CASSVILLE ARPT: Arpt clsd for constr UFN.

EAU CLAIRE MUNI ARPT Constr in progress in area NE of NE end rnwy 4-22 til aprxly Dec 1.

GREEN BAY RDO: Nov 28 DME will be shut down thru Dec 2 for mod. VOR will be shut down Nov 30.

GREEN BAY, AUSTIN STRAUBEL ARPT: Until aprxly Dec 1, constr NE end rnwy 6-24. NE 400' clsd: 4800' avbl.

LACROSSE RDO. MHW shut down UFN.

MILWAUKEE RDO: Nov 14, DME will be shut down til aprxly Nov 18 for mod.

WAUPUN ARPT: N/S rnwy clsd to transient acft due to constr UFN.

WYOMING

KEMMERER MUNI ARPT: Rotating bcn and bndry lgts inop til spring.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

LUSK MUNI ARPT: Lndg area lgts inop.

PUERTO RICO

SAN JUAN, ISLA GRANDE ARPT: Constr in progress new rnwy lgtg sys.

VIRGIN ISLANDS

ST CROIX, CHRISTIANSTAD, ALEXANDER HAMILTON ARPT: Rnwy 9/27 clsd, W txwy open for operns, asphalt 75x4800′ shoulders compacted earth total 150′ wide, lgtd.

AIRMAN'S INFORMATION MANUAL

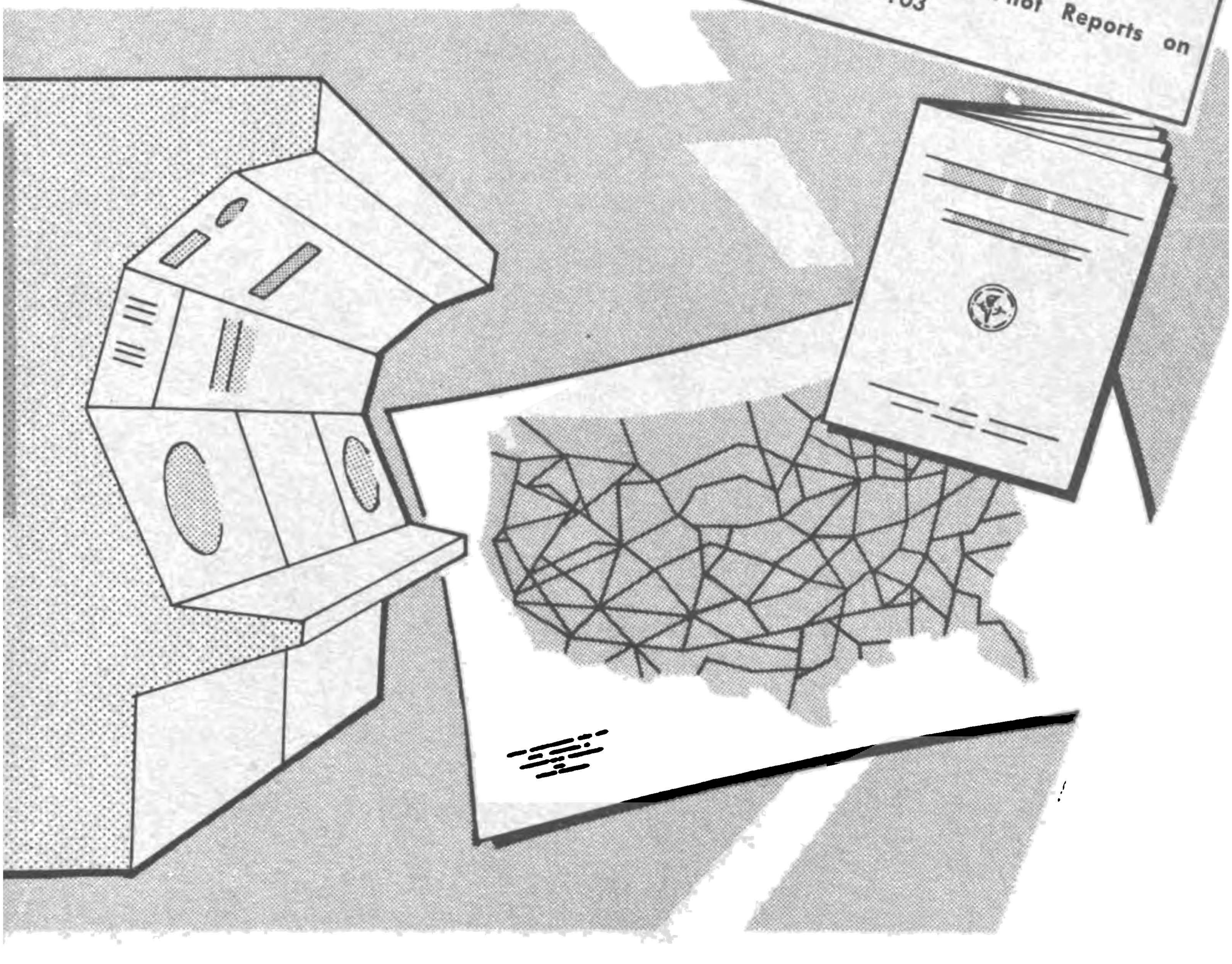
FEDERAL AVIATION AGENCY

OHIO STATE UNIVERSITY
DEC 17 1966

PART 3

ATTENTION

See "Special Collection of Pilot Reports on Turbulence" Page 3–103



OPERATIONAL DATA AND NOTICES TO AIRMEN

Effective
8 DECEMBER 1966
To 5 JANUARY 1967

AIRMAN'S INFORMATION MANUAL

The Airman's Information Manual has been designed as a pilot's operational manual for use primarily within the conterminous United States. It is divided into three basic parts, each of which may be purchased separately.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot ● prefixing the heading, paragraph, or line. Highlights of each part are described below.

PART 1

Basic Flight Manual and ATC Procedures

This part is issued quarterly and contains basic fundamentals required to fly in the National Airspace System; adverse factors affecting Safety of Flight; Health and Medical Facts of interest to pilots; ATC information affecting rules, regulations and procedures; a Glossary of Aeronautical Terms; U.S. Entry and Departure Procedures, including Airports of Entry and Landing Rights Airports; Air Defense Identification Zones (ADIZ); Designated Mountainous Areas; Scatana, and Emergency Procedures.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PART 2

Airport Directory

This part is issued semiannually and contains a Directory of all Airports, Seaplanes Bases, and Heliports in the conterminous United States, Puerto Rico, and the Virgin Islands which are available for transient civil use. It includes all of their facilities and services, *except communications*, in codified form. Those airports with communications are also listed in Part 3 which reflects their radio facilities.

Included, also, is a list of selected Commercial Broadcast Stations of 100 watts or more of power.

Annual subscription price $2.00. (Foreign mailing, 50 cents additional.)

PARTS 3 AND 3A

Operational Data and Notices to Airmen

Part 3 is issued every 28 days and contains a Master Alphabetical Index covering all Parts of the AIM; an Airport/Facility Directory containing a list of all major airports with communications; a tabulation of Air Navigation Radio Aids and their assigned frequencies; Parachute Jump Areas; Preferred Routes; Standard Instrument Departures (SIDs); Substitute Route Structures; a Sectional Chart Bulletin, which updates Sectional charts cumulatively; Restrictions to Enroute Navigation Aids; VOR Receiver Check Points; Special General and Area Notices; New and Permanently Closed Airports, and Oil Burner Routes.

Part 3A is issued every 14 days and contains Notices to Airmen considered essential to the safety of flight as well as supplemental data to Part 3.

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Errors, omissions or suggested changes should be forwarded to the Federal Aviation Agency, National Flight Data Center, AT-430, Washington, D.C. 20553.

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TABLE OF CONTENTS

Part 3

OPERATIONAL DATA

Abbreviations ---------- 3-v
Address, Change of (See Notice of Editor) ---------- 3-xi
Airport/Facility Directory Legend ---------- 3-vii
Airport/Facility Directory ---------- 3-1
Airports, New and Permanently Closed ---------- 3-119
Air Route Traffic Control Center Communications Frequency ---------- 3-46
Boeing Low Level IFR Operations ---------- 3-131
Chicago Terminal Area Chart ---------- 3-115
Chuckwagon Low Level Routes ---------- 3-124
Dates of Latest Editions (Aeronautical Charts) ---------- 3-154
District of Columbia Prohibited Area (Chart) ---------- 3-104
DME at ILS Locations ---------- 3-101
Expanded Radar Service for Arriving and Departing Flights ---------- 3-117
Flight Information Publication Policy ---------- 3-97
FSS and Weather Bureau Telephone Numbers ---------- 3-50
Low Altitude VFR Military Operations ---------- 3-131
Master Alphabetical Index ---------- 3-i
Military Aerial Refueling Tracks ---------- 3-130
Notices to Airmen ---------- See Part 3-A
Notice to Editor ---------- 3-xi
Oil Burner Routes ---------- 3-132
Parachute Jumping Areas ---------- 3-60
Part-time Controlled Airspace Designation ---------- 3-100
Part-time Manned Facilities and AIDS ---------- 3-102
Preferred Routes ---------- 3-66
Publication Schedule ---------- 3-59
Radio Class Designation ---------- 3-x
Rerouted Aircraft and Altitude Restrictions ---------- 3-102
Restrictions to Enroute Navigation Aids ---------- 3-82
Runway Gradient ---------- 3-103
Sectional Chart Bulletin ---------- 3-76
Selective Calling System (SELCAL) Facilities Available ---------- 3-97
Special Notices ---------- 3-97
    General (Notices with universal application) ---------- 3-97
    Area Notices (by state, city, etc.) ---------- 3-104
Special Use Airspace ---------- 3-124
Standard Instrument Approach Procedures Actions ---------- 3-150
Standard Instrument Departures (SIDs) ---------- 3-73
Substitute Route Structure ---------- 3-121
VOR Receiver Check Points ---------- 3-89

MASTER ALPHABETICAL INDEX

Airman's Information Manual

This Master Alphabetical Index lists the Part and page of the Airman's Information Manual on which the indexed information may be found. Reference involving emergency activities or procedures is printed in bold-face type. The Part number is in bold type.

A

Part and Page

Abbreviations 3-v
Address, Change of (See Notice to Editor) 3-xi
ADIZ and Designation Mountainous Areas Chart 1-86
ADIZ Procedures 1-84
Advisory Information, VFR 1-73
Advisory Service, Jet 1-59
Aeronautical Advisory Stations (UNICOM) 1-75
Aeronautical (Light) Beacons 1-17
Aeronautical charts, Dates of Latest 3-154
Aeronautical Information and the National Airspace System 1-24
Aeronautical Multicom Service 1-75
Aeronautical Publications 1-48
Aeronautical Terms, Glossary of 1- 1
(AID), Airport Information Desk 3-102
AIM Publication Schedule 3-59
Aircraft Call Signs 1-21
Aircraft Fuel 2, 3
Aircraft Storage/Repair 2, 3
AIRMETS and SIGMETS 1-32
Air Navigation Radio Aids 1- 7
Airport Advisory Service (Non-Radar) 1-73
Airport, Air Navigation Lighting and Marking Aids 1-17
Airport Directory 2-1
Airport Elevation 2, 3
Airport/Facility Directory 3- 1
Airport Identifying Code 1-18
Airport, IFR 2 & 3
Airport Information Desk (AID) 3-102
Airport, Lighted Land 1-17
Airport, Lighted Water 1-17
Airport Lighting Facilities 1-17, 2 & 3
Airport Marking Aids 1-19
Airport, Military (Lighting) 1-18
Airports of Entry 1-82, 2 & 3
Airport Runway Data 2, 3
Airports, New and Permanently Closed 3-119
Air Rescue Centers 1-92
Air Traffic Control Radar Beacon System (ATCRBS) 1-16, 1-63
Airway Beacons 1-18
Airway/Route Systems 1-58
Airway/Route Course Changes 1-59
Alcohol 1-41
Altimetry 1-30
Altitudes, Traffic Pattern 2
ANRA 1-7, 3-1
Alphabet, Phonetic 1-23
Approach Control 1-75
Approach Light System, Instrument 1-18
Approach Procedures Actions, Instrument 3-150
Area Notices 3-104
Arrival 1-73
ARTCC Communications Frequencies 3-46
ATC Clearance 1-54

Part and Page

(ATIS) Automatic Terminal Information Service 1-73, 3
Auxiliary Lights 1-17

B

Beacon, Airway 1-18
Beacon, Aeronautical (Light) 1-17
Beacon, Marker 1-10
Beacon Operation, Daylight 1-18
Beacon, Radio 1- 7
Beacon, Rotating 1-17
Beacon, Standards (deviations from) 1-18
Bird Hazards 1-44
Broadcast Stations, Commercial 2-229
Bulletin, Sectional Chart 3-76

C

Call Signs, Aircraft 1-21
Call Signs, Ground Stations 1-21
Carbon Monoxide 1-42
Ceiling 1-1, 1-33
Change of Address (Notice to Editors) 3-xi
Changeover Points (VOR) 1-65
Chart Bulletin, Sectional 3-76
Charts, Dates of Latest Prints 3-154
Chart, Oil Burner Route 3-132
Chart, ADIZ and Mountainous Area 1-86
Civil Use of Military Fields 3-98
Class of VOR/VORTAC/TACAN 1-9
Clear Air Turbulance 1-33
Clearance, ATC 1-54
Climbing/Descending Aircraft 1-66
Cloud Heights, Reporting of 1-33
Code, NOTAM 1-25
Collision Reporting, Near Mid-Air 1-40
Commercial Broadcast Stations 2-229
Communications, Direct Pilot/Controller 1-70
Communications, Enroute 1-67
Communications Failure 1-93
Communications Frequencies, ARTCC 3-46
Compass Locator, ILS 1-11
Composite Flight Plan (VFR/IFR) 1-49
Consolan 1-14
Contact Procedure, Radio Telephone 1-21
Continental Control Area 1-59
Crash Locator Beacon 1-91
Cruising Altitudes, Enroute 1-72

D

Departure 1-53
Departure Communications 1-53
Departure Control 1-57
Departure, Standard Instrument (SID) 1-55, 3-73
Designated Mountainous Areas chart and ADIZ 1-86
Designation, Radio Class 3-x
Detouring Thunderstorms 1-36
Direct Communications, Controllers/Pilots 1-70
Direct Flights 1-51

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Direction Finder (VHF/UHF) 1-14
Directional Reporting 1-65
Distance Measuring Equipment (DME) 1- 8
District of Columbia Prohibited Area (Chart) 3-104
Drugs 1-41

E

Ear Discomfort or Pain 1-42
Elevation, Airport 2 & 3
Emergency Procedures, Aircraft 1- 90
Emergency Signals (Visual) 1-96
Enroute 1-58
Enroute Communications 1-67
Enroute Cruising Altitudes 1-72
Entry and Departure Requirements, U.S. 1-81
Expanded Radar Service for Arriving and
  Departing Flights 1-75, 3-117

F

FAA and NORAD Chart 1-89
Fatigue 1-42
Figures 1-29
Flight Following Flight Plan (FVFR) 1-50
Flight Plan, Closing 1-50
Flight Plan, Composite VFR and IFR 1-49
Flight Plan, IFR 1-50
Flight Plan, VFR 1-49
Flights Across U.S. Borders 3-97
Flight Information Publication Policy 3-97
Flight Service Stations/Weather Bureau Offices 3-50
Flight Standard District Offices 1-97
Frequency Pairing Plan 1- 9
Frequency Use Plan, Enroute Communications 1-70
Frequency Utilization Plan 1-12
Fuel Jettisoning 1-94

G

General Notices 3-97
Glide Path, ILS 1-11
Glossary of Aeronautical Terms 1- 1
Good Operating Practices 1- 5
Greenwich Mean Time 1-22
Ground Station Call Signs 1-21

H

Hand Signals 1-80
Hazards, Bird 1-44
Hazards, Lighting Aids 1-18
Helicopter, Landing Area 1-20
Heliports 2-221
Holding 1-61
Hypoxia 1-41

I

IFR Airport 2, 3
ILS Glide Path 1-11
ILS Instrument Landing System 1-10
ILS Localizer 1-10
In-Flight Weather Advisories 1-32
In-Runway Lighting 1-19
Instrument Approach 1-76
Instrument Approach Light System 1-18
Instrument Approach Procedure Actions 3-150
Instrument Departures (SID's), Standard 1-55, 3-73
Instrument Runway 1-20
Interception Pattern for Identification of
  Transport Aircraft 1-88
Interception Signals, U.S. 1-87

J

Jet Advisory Service 1-59

K

Key to Aviation Weather Reports 1-36

Part and Page

L

Lake, Island and Mountain Reporting Service 1-67
Landing 1-79
Lights, Auxiliary 1-17
Light Signals (Departure) 1-53
Light Signals (Landing) 1-79
L/MF Radio Range 1-7
Localizer, ILS 1-10
Locator, Compass 1-11
Low Altitude VFR Military Operations 3-131

M

Maintenance of FAA NAVAIDS 1-12
Marker Beacon 1-10
Marshalling Signals for Aircraft 1-80
Medical Facts for Pilots 1-41
Microphone Technique 1-21
Middle Ear Discomfort or Pain 1-42
Military Aerial Refueling 3-130
Mountainous Area Chart and ADIZ 1-86

N

National Search and Rescue Plan 1-91
NAVAIDS with Voice 1-12
Near Misses (Near Midair Collision Reporting) 1-40
New and Permanently Closed Airports 3-119
NORAD Chart, FAA and 1-89
NOTAM Code 1-25
Notice to Editor (Change of Address) 3-xi
Notices, Area 3-104
Notices, Special 3-97
Notices to Airmen 3A

O

Oil Burner Routes 3-132
Omnidirectional Range (VOR) 1-7

P

Panic 1-43
Parachute Jumping Areas 3-60
Parallel ILS 1-11
Part-time Controlled Airspace Designation 3-100
Part-time Manned Facilities and AIDS 3-102
Permanently Closed Airports, New and 3-119
Phonetic Alphabet 1-23
Pilot Weather Reports (PIREPs) 1-33
Position Reporting 1-67
Positive Control Area 1-59
Precision Approach, Radar 1-15
Preferred Routes 3-66
Preflight 1-49
Pre-taxi Clearance Procedures 1-54
Publication Policy, Flight Information 3-97
Publications, Aeronautical 1-48
Publication Schedule, AIM 3-59

R

Radar 1-15
Radar Assistance to VFR Aircraft 1-66
Radar Beacon System (ATCRBS) 1-63
Radar Controlled Approaches 1-15
Radar Enroute Service 1-60
Radar Monitoring of Instrument Approaches 1-77
Radar Reporting Network 1-35
Radar, Surveillance 1-15
Radar Traffic Information Service 1-74
Radio Beacon 1- 7
Radio Class Designation 3-x
Radio Communications Failure 1-93
Radio Interference 1-14
Radio Range L/MF 1- 7

MASTER ALPHABETICAL INDEX—*Continued*

Part and Page

Radiotelephone Phraseology and Techniques 1-21
Receiver Check Points, VOR 1-8, 3-89
Refueling Tracks, Military Low Altitude Aerial 3-130
REIL, Runway End Identifiers 1-19, 2, 3
Repair, Aircraft 2, 3
Reporting, Directional 1-65
Reporting Service, Lake, Island and Mountain 1-67
Restricted Airspace 1-66
Restrictions to Enroute Navigation Aids 3-82
Rocky Mountain Reporting Service 1-69
Rotating Beacon 1-17
Runway End Identifiers (REIL) 1-19, 2, 3
Runway Gradient 3-103
Runway, Longest 2, 3
Runway Marking 1-19
Runway Surface 2, 3
Runway Visibility (RVV) 1-34
Runway Visual Range (RVR) 1-34
Runway Weight Bearing Capacity 2, 3

S

Safety of Flight (Wake Turbulence) 1-37
SCANTANA Procedures 1-84
Scheduled Weather Broadcasts 1-31
Scuba Diving 1-43
Seaplane Bases 2-216
Search and Rescue 1-91
Sectional Chart Bulletin 3-76
Selective Calling System (SELCAL) 3-97
Sectional Charts, Dates of latest prints 3-154
SIDs (Standard Instrument Departures) 1-55, 3-73
SIGMET (Significant Meteorology), AIRMETS 1-32
Signals, Emergency 1-95
Signals, (Visual), **Emergency** 1-96
Signals, Light 1-53
Simultaneous Voice Transmissions from a
  Single Location 1-12
Special Notices 3-97
Special Use Airspace 1-71, 3-124
Special VFR Flight Clearance Procedures 1-54
Speed Adjustment of Arriving Aircraft 1-78
Standard Instrument Approach Procedures
  Actions 3-150
Standard Instrument Departures (SIDs) 1-55, 3-73
Storage, Aircraft 2, 3
Substitute Route Structure 3-121
Surveillance Radar 1-15

Part and Page

T

TACAN 1-8
Terminal Radar Service 1-75
Thunderstorms 1-36
Time 1-22
Traffic Information Service, Radar 1-74
Traffic Pattern Altitudes 2
Traffic Pattern Direction, Landing 1-79
Transcribed Weather Broadcasts 1-31
Turbulence, Clear Air (CAT) 1-33
Turbulence, Wake 1-37
Two-Way Radio Communications Failure 1-93

U

UNICOM (Aeronautical Advisory Station) ...... 1-75, 2, & 3
U.S. Entry and Departure Requirements 1-81

V

VASI (Visual Approach Slope Indicator) 1-19
Vertigo 1-42
VFR Advisory Information 1-73
VFR Conditions on Top 1-51
VFR Flight Clearance Procedures 1-55
VHF UHF Direction Finder 1-14, 3
Visibility, Observations 1-34
Vision 1-42
Visual Approach Slope Indicator (VASI) 1-19
VOR 1-7
VOR Changeover Points 1-65
VOR Receiver Check Points 1-8, 3-89
VORTAC 1-8
VOT (VOR Test Signal) 1-8, 3

W

Wake Turbulence 1-37
Warning Areas 1-71
Weather 1-31
Weather Briefing 1-49
Weather Broadcasts Format 1-32
Weather Broadcast, Scheduled 1-31
Weather Broadcast, Transcribed 1-31
Weather Broadcast, Unscheduled 1-32
Weather Bureau Offices/Flight Service Stations 3-50
Weather Radar 1-34
Weather Advisories, In-Flight 1-32

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

AAS	Airport Advisory Service at FSS-Located airport-shown in Location Column.
AB	Continuous automatic transcribed broadcast service.
AC	Approach Control Tower, FAA (transmits on voice channel or associated ranges and ILS in addition to frequencies listed).
acft	aircraft
adjt	adjacent
admin	administration
AGL	above ground level
AIM	Airman's Information Manual.
AL	Approach and Landing Chart
alt	altitude
amdt	amendment
ANRA	air navigation radio aids
ant	antenna
apch	approach
apchg	approaching
APP CON	Approach control
aprxly	approximately
arpt	airport
arr	arrival/arrive
ARSR	Air Route Surveillance Radar.
ARTCC	Air Route Traffic Control Center
ASDE	airport surface detection equipment
ASR	Arpt Surveillance Radar.
ATC	air traffic control
ATIS	Automatic Terminal Information Service
auto	automatic
aux	auxiliary
avbl	available
awy	airway
B	Scheduled Broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
BC	back course
bcn	beacon
bcst	broadcast
bldg	building
bndry	boundary
brg	bearing
btn	between
C	Control Tower, FAA.
CI	Control Tower (City, County, Private, etc.).
clsd	closed
clrnc	clearance
cntr	center
Co	county
comm	communication
comsnd	commissioned
comsng	commissioning
config	configuration
constr	construction
constrd	constructed
cont	continuous/continuously
crs	course
CS/T	combined station/tower
ctc	contact
ctl	control
ctld	controlled
dalgt	daylight
decmsnd	decommissioned
demol	demolition
dep	departure
DEP CON	Departure control
DF	direction finder
discntd	discontinued
DME	UHF standard (TACAN compatible) distance measuring equipment
dptg	departing
DVFR	Defense Visual Flight Rule.
efctv	effective
elev	elevation
emgcy	emergency
eng	engine
eqpmt	equipment
excp	except
extsn	extension
extsv	extensive
facil	facility
FL	Flight Level.
flashg	flashing
fld	field
flt	flight
flwg	following
FM	fan marker
fone	telephone
freq	frequency
FSF	Flight Service Facility.
FSS	Flight Service Station
FVFR	Flight Following Flight Plan.
GCA	groundcontrolled approach
gnd	ground
GWT	gross weight
H	Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH	Non-directional radio beacon (homing), power 2000 watts or more
hi-	high-
hr	hour
H-SAB	Non-directional rbn providing auto trans wea service.
hvy	heavy
hwy	highway
ident	identification
IFF	Identification Friend or Foe
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	instrument landing system
imdtly	immediately
inbnd	inbound
indef	indefinitely
info	information
inop	inoperative
inst	instrument
int	intersection
intl	international
intsv	intensive
J-bar	jet runway barrier
kc	kilocycles
lat	latitude
lcl	local
lclzr	localizer
lctd	located
lctn	location
LFR	Low/Medium frequency radio range
lgt	light
lgtd	lighted
lgtg	lighting
LMM	compass locator at middle marker ILS
lnd	land
lndg	landing
LOM	compass locator at outer marker ILS
long	longitude
LRCO	Limited Remote Communication Outlet.
M	magnetic (after a bearing)
MA	Range (adcock, vertical radiators), power less than 50 watts.
MAA	maximum authorized altitude
mag	magnetic
maint	maintain, maintenance
maj	major
max	maximum
mc	megacycles
MCA	minimum crossing altitude
MEA	minimum en-route IFR altitude
meml	memorial
MH	Non-directional radio beacon (homing), power less than 50 watts
mi	mile
min	minimum or minute
ML	Range (loop radiators), power less than 50 watts.
MM	middle marker ILS
MOCA	minimum obstruction clearance altitude
mod	modernization/modification
MRA	minimum reception altitude
mrkd	marked
mrkg	marking

ABBREVIATIONS

MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
MSL	mean sea level
muni	municipal
natl	national
navaid	navigational aid
ngt	night
nmi	nautical mile/s
No.	number
obstn	obstruction
oct	octane
OM	outer marker ILS
operg	operating
opern	operation
outbnd	outbound
PAR	Precision Apch Radar.
patn	pattern
permly	permanently
p-line	pole line
pwr	power
quad	quadrant
RA	Range (adcock, vertical radiators), power 150 watts or more.
rad	radial
RAE	Royal Aircraft Establishment
	visual glide slope indicator
RAPCON	radar approach control (USAF)
RATCC	radar air traffic control center (NAVY)
rbn	radio beacon
RCO	Remote Communications Outlet.
rcv	receive
rcvg	receiving
rcvr	receiver
rdo	radio
reconstr	reconstruction
REIL	runway end identification lights
relctd	relocated
Req	Operates on request.
rgt	right
RL	Range (loop radiators), power 150 watts or more.
rng	range
rnwy	runway
ruf	rough
RVR	runway visual range
RVV	runway visibility values
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional rbn having limited navigational use. Provides auto wea bcst
SID	Standard Instrument Departure.
SIF	Selective Identification Feature (of the basic Mark X radar beacon system)
sked	schedule
SLMM	Simultaneous middle marker compass locator and twr voice transmission.
SLOM	Simultaneous outer marker compass locator and twr voice transmission.
smi	statute mile/s
SR	sunrise
SS	sunset
stn	station
sys	system
T	true (after a bearing)
TACAN	UHF navigational facility—omnidirectional course and distance information
tet	tetrahedron
tfc	traffic
til	Until
tkof	take-off
tmprly	temporarily
tmpry	temporary
trans	transcribed
trml	terminal
trng	training
tsmt	transmit
tsmtg	transmitting
tsmtr	transmitter
TV	television
twr	tower
TWEB	trans. wea bcst
txwy	taxiway
UFN	until further notice
UHF	Ultra hi freq
unavbl	unavailable
uncltd	uncontrolled
unlgtd	unlighted
unmrkd	unmarked
VASI	visual approach slope indicator
vcnty	vicinity
VFR	visual flight rules
VHF	Very high frequency
VOR	VHF navigational facility—omnidirectional, course only
VOR-DME	collocated VOR facility and UHF standard distance measuring equipment
VORTAC	collocated VOR and TACAN navigational facilities
VOT	a VOR Receiver Testing Facility
vsby	visibility
W	Without voice facilities on range frequency.
wea	weather
WB	Weather Bureau
WIP	work in progress
wt	weight
Z	VHF station location marker at a LF range station.
Z	Greenwich mean time.

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the nearest mile) and direction from center of referenced city.

ELEVATION

Elevation is given in feet above mean sea level and is based on highest usable portion of the landing area. When elevation is sea level, elevation will be indicated as "00." When elevation is below sea level, a minus sign (−) will precede the figure.

RUNWAYS

The runway surface length, and weight bearing capacity are listed for the longest instrument runway or sealane, or the longest active landing portion of the runway or strip, given to the nearest hundred feet, using 70 feet as the division point, i.e., 1468 feet would be shown as "14"; 1474 feet would be shown as "15". Runway lengths prefixed by the letter "H" indicates that runways are hard surfaced (concrete; asphalt; bitumen, or macadam with a seal coat). If the runway length is not prefixed, the surface is sod, clay, etc. The total number of runways available is shown in parenthesis. (However, only hard surfaced runways are counted at airfields with both hard surfaced and sod runways.)

RUNWAY WEIGHT BEARING CAPACITY

Add 000 to figure following S, T, TT and MAX for gross weight capacity, e.g., (S–000).

S–Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC–3), etc.

T–Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC–6), etc.

TT–Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

Quadricycle and twin-tandem are considered virtually equal for runway weight bearing considerations, as are single-tandem and twin-wheel.

A blank space following the letter designation is used to indicate the runway weight bearing capacity to sustain aircraft with the same type landing gear, although definite figures are not available, e.g., (T–).

Omission of weight bearing capacity indicates information unknown. Footnote remarks are used to indicate a runway with a weight bearing greater than the longest runway.

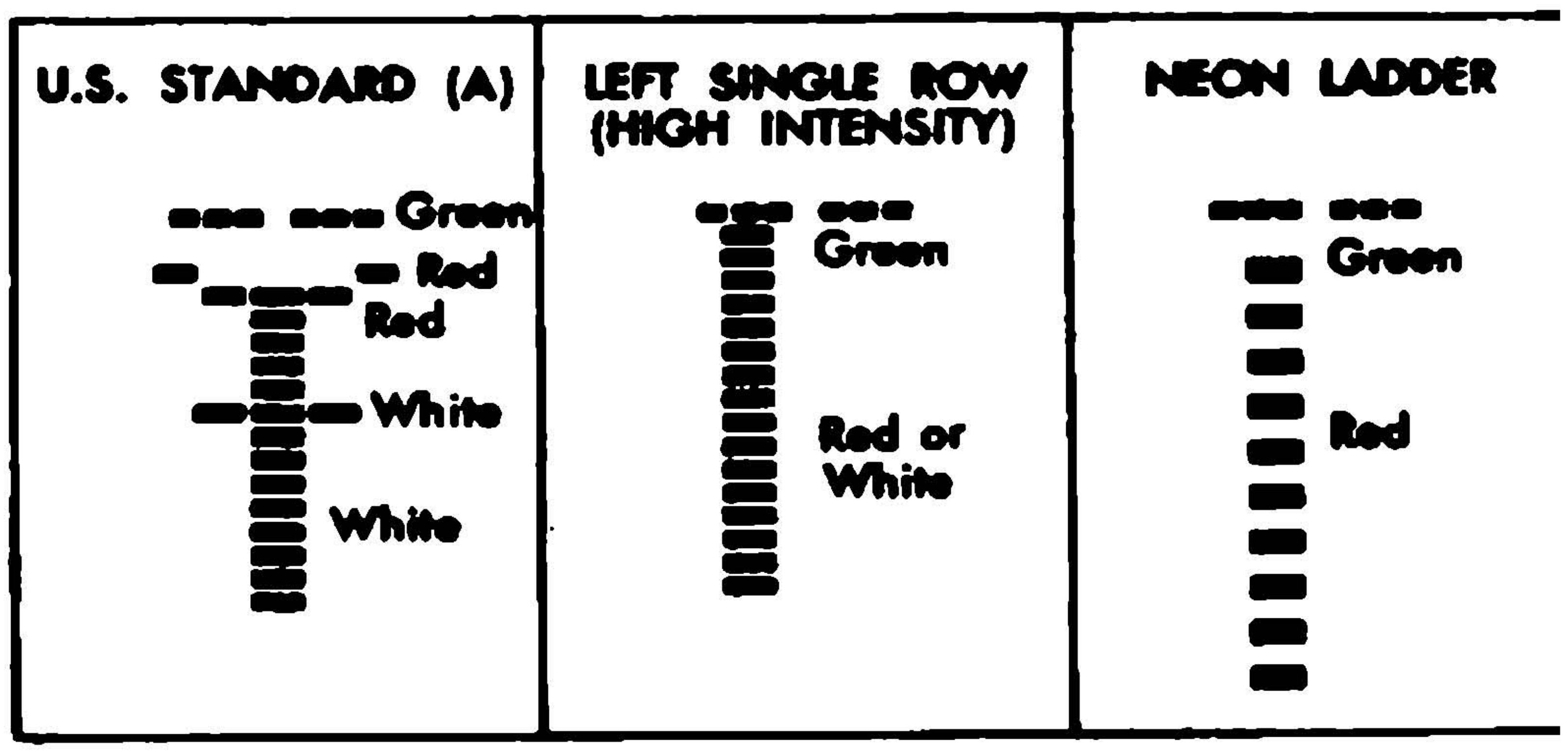
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

Note.—Code lights are not codified, and are carried in Remarks.

L: Field Lighting. An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000′ out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)
13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1	80 oct., at least.
F2	80/87 oct., or lower.
F3	91/96 oct., or lower.
F4	100/130 performance rating, or lower.
F5	115/145 performance rating, or lower.

TURBINE FUELS

TP-1	650 turbine fuels for civil jets.
JP-1	(Kerosene), **JP-3, JP-4, JP-5.**

DAYLIGHT SAVING TIME

An airport located in a geographic area which normally converts to daylight saving time will be so identified by use of a code.

The two most common time periods during which daylight time is in effect in the conterminous United States are April 25-September 26 and April 25-October 31, and these are indicated as DT 1 and DT 2 respectively. The code "DT" by itself indicates that daylight time is in effect but not on the common time periods of DT 1 or DT 2. In such cases the applicable time period is footnoted in the airport remarks section.

Reference to daylight time will remain in the Airport Directory continuously.

OTHER

AOE—Airport of Entry.

VASI—Visual Approach Slope Indicator, applicable runway provided.

RVV—Runway Visibility Values, applicable runway provided.

RVR—Runway Visual Range, applicable runway provided.

FSS—The name of the associated FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481-5867)." When an Interphone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"**FEE**" indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"**Rgt tfc 13–31**" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

Frequencies transmit and receive unless specified as: T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a crossout: ~~121.5~~

Radar available is listed under "RADAR SERVICES" Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

COMMUNICATIONS REMARKS

Remarks data are confined to operational items affecting the status and usability of navigational aids, such as: ILS component restrictions, part time tower hours of operation, frequency sectorization, VOT frequencies, proposed changes to navigational aids, etc.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired, i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

TOWER

Pre-Taxi Clearance Procedure
Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

RADIO NAVIGATION AIDS

Included in this section is a tabulation of all Air Navigation Radio Aids in the National Airspace System

and those upon which the FAA has approved an instrument approach. Private or military Navigation Radio Aids not in the National Airspace System are not tabulated.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

ATIS is continuous broadcast of recorded non-control information in selected areas of high activity. See Part 1.

RADAR APPROACH PROCEDURE MINIMA

Weather minima for precision and surveillance radar approaches (PAR/ASR) specify only the lowest straight-in authorized for the approach.

FLIGHT SERVICE STATION (FSS)

Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

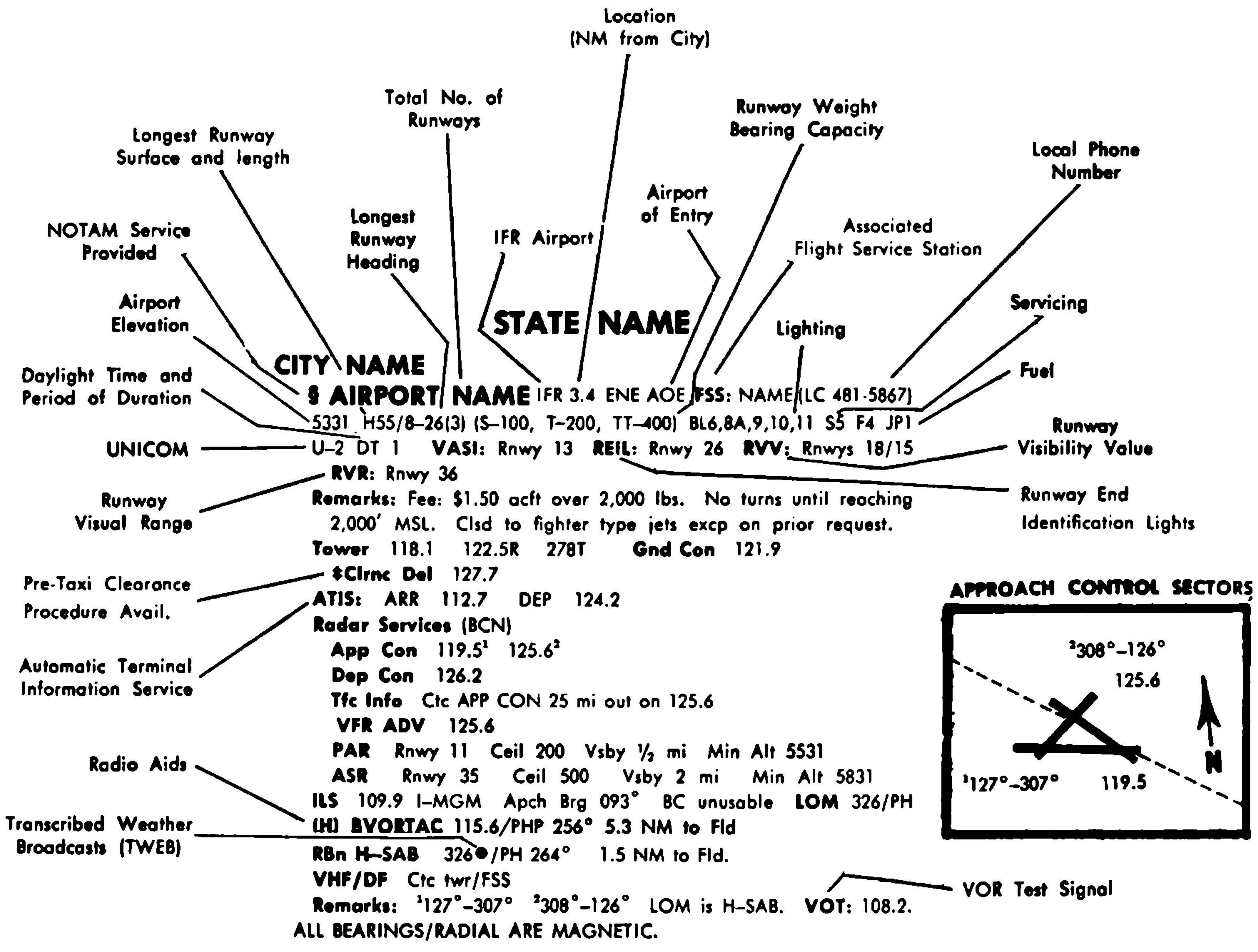
UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U–1—122.8 mc (at airports without a control tower).

U–2—123.0 mc (at airports with a control tower).

SAMPLE


Location (NM from City)
Total No. of Runways
Runway Weight Bearing Capacity
Longest Runway Surface and length
Local Phone Number
Airport of Entry
NOTAM Service Provided
Longest Runway Heading
IFR Airport
Associated Flight Service Station
Airport Elevation
Lighting
Servicing
Daylight Time and Period of Duration
Fuel
UNICOM
Runway Visibility Value
Runway Visual Range
Runway End Identification Lights
Pre-Taxi Clearance Procedure Avail.
APPROACH CONTROL SECTORS
Automatic Terminal Information Service
²308°–126°
125.6
N
Radio Aids
¹127°–307°
119.5
Transcribed Weather Broadcasts (TWEB)
VOR Test Signal

STATE NAME

CITY NAME

§ AIRPORT NAME IFR 3.4 ENE AOE FSS: NAME (LC 481-5867)
5331 H55/8–26(3) (S–100, T–200, TT–400) BL6,8A,9,10,11 S5 F4 JP1
U–2 DT 1 **VASI:** Rnwy 13 **REIL:** Rnwy 26 **RVV:** Rnwys 18/15
RVR: Rnwy 36
Remarks: Fee: $1.50 acft over 2,000 lbs. No turns until reaching 2,000′ MSL. Clsd to fighter type jets excp on prior request.
Tower 118.1 122.5R 278T **Gnd Con** 121.9
$Clrnc Del 127.7
ATIS: ARR 112.7 DEP 124.2
Radar Services (BCN)
App Con 119.5^1 125.6^2
Dep Con 126.2
Tfc Info Ctc APP CON 25 mi out on 125.6
VFR ADV 125.6
PAR Rnwy 11 Ceil 200 Vsby ½ mi Min Alt 5531
ASR Rnwy 35 Ceil 500 Vsby 2 mi Min Alt 5831
ILS 109.9 I-MGM Apch Brg 093° BC unusable **LOM** 326/PH
(H) BVORTAC 115.6/PHP 256° 5.3 NM to Fld
RBn H–SAB 326●/PH 264° 1.5 NM to Fld.
VHF/DF Ctc twr/FSS
Remarks: ^{1}127°–307° ^{2}308°–126° LOM is H–SAB. **VOT:** 108.2.
ALL BEARINGS/RADIAL ARE MAGNETIC.

RADIO CLASS DESIGNATIONS

Identification of VOR/VORTAC/TACAN Stations by Class (Operational Limitations):

Class	Normally Anticipated Altitude Service	Normally Anticipated Interference-Free Distance Service
H	Up to 45,000 MSL	149.75 smi (130 nmi)
	Above 45,000′ MSL	115.2 smi (100 nmi)
L	Up to 18,000′ MSL	46.06 smi (40 nmi)
T	Up to 12,000′ MSL	28.79 smi (25 nmi)

H=High L=Low T=Terminal

NOTE: An H facility is capable of providing L and T service volume and an L facility additionally provides T service volume.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Continuous automatic transcribed broadcast service.
B	Scheduled Broadcast Station (broadcasts weather at 15 and 45 minutes after the hour; Air Force Broadcasts, generally, 29 minutes).
DME	UHF standard (TACAN compatible) distance measuring equipment.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts.
HH	Non-directional radio beacon (homing), power 2,000 watts or more.
H–SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice on localizer channel).
LMM	Compass locator station when installed at middle marker site.
LOM	Compass locator station when installed at outer marker site.
MA	Range (adcock, vertical raditors), power less than 50 watts.
MH	Non-directional radio beacon (homing) power less than 50 watts.
ML	Range (loop radiators), power less than 50 watts.
MRA	Range (adcock, vertical radiators), power 50 watts or more but less than 150 watts.
MRL	Range (loop radiators), power 50 watts or more, but less than 150 watts.
RA	Range (adcock, vertical radiators), power 150 watts or more.
RBn	Non-directional rdo bcn.
RL	Range (loop radiaters), power 150 watts or more.
S	Simultaneous range, homing signal and/or voice.
SABH	Non-directional radio beacon having limited navigational use. Provides automatic weather broadcasts.
TACAN	UHF navigational facility—omnidirectional course and distance information.
VOR	VHF navigational facility—omnidirectional, course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice facilities on range frequency.
Z	VHF station location marker at a LF range station.

NOTES

1. All FAA MH facilities operate continuously unless otherwise cited.
2. All FAA ranges operate continuously. Those which are not manned continuously are cited in the remarks with hours of operation in parentheses, e.g., (0600-2400).
3. LMF and VHF ranges listed at the same location are controlled by the same FSS.
4. Military navigational facilities which are not part of the common system are not listed in this publication.

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Indicate Appropriate Part. Date ________________________________

☐ Part 1, Basic Flight Manual and ATC Procedures
☐ Part 2, Airport Directory
☐ Part 3, Operational Data and Notices to Airmen
☐ Part 3–A, Notices to Airmen

Please correct (change) the following:

NAME ______________________________
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Federal Aviation Agency
Air Traffic Service
Flight Information Division, AT–430
Washington, D.C. 20553

(Fold here)

ALABAMA

ANNISTON (L) BVOR 108.8/ANB **FSS:** ANNISTON
RBn BMH [1]278/ANB
Remarks: [1]For use within 10 mi stn ADF apch only.

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§BIRMINGHAM MUNI *IFR* 4NE **FSS:** BIRMINGHAM on fld
643 H92/5–23(2) (S–120, T–170, TT–300) BL6,8A,9,10 S5 F5, JPI, JP4 U2 **RVR:** Rnwy 5 **VASI:** Rnwy 23.
Remarks: Rnwy 23 threshold displaced 1761′ SW. Rnwy 5 9247′ lgtd full length.
Tower 118.7 126.2 122.5R 110.3T **Gnd Con** 121.9
ATIS: 114.4
Radar Services: (BCN)
App Con 119.9 126.2 110.3T
Dep Con 124.9
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 5: Ceil 600, Vsby 1 mi, Min Alt 1243.
Rnwy 18: Ceil 700, Vsby 1 mi, Min Alt 1343.
Rnwy 23*: Ceil 900, Vsby 1 mi, Min Alt 1543.
Rnwy 36: Ceil 800, Vsby 1 mi, Min Alt 1443.
ILS[1] 110.3 I–BHM Apch Brg 052 BC unusable **LOM:** 224/BH
(H) VORTAC 114.4/BHM 127° 9.8NM to Fld.
RBn H–SAB 224●/BH 052° 4.5 to Fld.
Remarks: [1]Glide slope unusable below 682′. **VOT:** 112.0 LOM is H–SAB. *Maintain at least 1900′ til 4 mi from rnwy on final apch.

BROOKLEY (L) BVORTAC 112.8/BFM **FSS:** MOBILE

BROOKWOOD (L) BVOR 111.0/BWA **FSS:** BIRMINGHAM

CAIRNS (L) VOR 111.2/OZR
RBn MHW 212/OZ

DECATUR (L) BVOR 108.6/DCU **FSS:** HUNTSVILLE

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§DOTHAN *IFR* 7NW **FSS:** DOTHAN on fld
395 H56/18–36(3) (S–60, T–105, TT–190) BL6 S5 F4 U–1
Remarks: 1209′ AGL twr 10NM ESE. Displaced threshold rnwy 36, 600′N.
Radar Services:
ASR Rnwy 18: Ceil 400 Vsby 1 mi Min Alt 795′.
VFR ADV: Ctc Cairns APP/DEP CON
(L) BVORTAC 111.6/DHN 334° 1.9NM to rnwy 36
VHF/DF Ctc FSS.

EUFAULA (L) BVOR 109.2/EUF **FSS:** DOTHAN

GADSDEN (L) BVORTAC 112.3/GAD **FSS:** ANNISTON

HAMILTON (L) BVOR 110.4/HAB **FSS:** MUSCLE SHOALS

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§HUNTSVILLE-MADISON *IFR* 3S **FSS:** MUSCLE SHOALS (DL)
619 H52/18–36 (2) (S–50, T–85, TT–130) BL4,6,8A,9 S5 F4, JP1 **RVV:** Rnwy 18
Tower 119.7 122.5R 109.0T **Gnd Con** 121.9
App Con 125.6 122.5R 109.0T
ILS[1] 109.3 I–HSV Apch Brg 179° **LOM:** 242/HS
Huntsville (L) BVOR 109.0/HSV 158° 6.4NM to rnwy 18.
Remarks: [1]Glide slope unusable below 657′ MSL.

MAXWELL (L) VOR 110.2/MXF

MOBILE
§BATES FLD *IFR* 9W **FSS:** MOBILE on Fld
217 H78/14–32(3) (S–40, T–150, TT–280) BL4,6,8A,9 S5 F5 JP1, U2 **RVV** Rnwy 14
Remarks: U.S. Customs lndg rgts arpt. Threshold displaced 1000′ NW runway 32.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Mobile App Con[1] 118.5 126.2 121.0 122.7R 115.3T 112.8T
Mobile Dep Con 134.1 125.7
ILS 109.9 I–MOB Apch Brg 141° BC unusable **LOM:** 248/MO
Mobile (H) VORTAC 115.3/MOB 108° 6.3NM to fld.
Mobile RBn BH 248/MO 140° 4.6NM to fld.

ALABAMA—*Continued*

Remarks: [1]APP CON unable to provide complete radar tfc advy svc from BFM VORTAC 090–110° rad. LOM is BH.

MONROEVILLE (L) BVOR 116.8/MVC **FSS:** MOBILE

MONTGOMERY
§DANNELLY FLD *IFR* 6SW **FSS:** MONTGOMERY on Fld
221 H90/9–27(3) (S–120, T–170, TT–300) BL4,6,8A,9 S5 F5 JP1 U2 **RVR:** Rnwy 9
Remarks: Closed to acft heavier than Super G Constellation and DC–7 regardless of wt displacement per wheel. Rnwy 15–33 restricted to acft 12,500 lbs or less.
Tower 119.7 126.2 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Montgomery App Con 121.1 126.2 122.7R 112.1T
Montgomery Dep Con 125.5 124.0
Tfc Info Ctc Montgomery App Con on 121.1 (Low) aprx 25 mi. out.
ASR Rnwy 9,27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I–MGM Apch Brg 093° **LOM** 245/MG
VHF/DF Ctc FSS.
Montgomery (H) BVORTAC 112.1/MGM 318° 5.6NM to fld.

MUSCLE SHOALS (L) BVORTAC 116.5/MSL **FSS:** MUSCLE SHOALS

REDSTONE (L) VOR 111.2/HUA
RBn HW 287/HUA

ROEBUCK RBn MHW 201/ROE

SELMA (L) VOR 114.6/SEM

TUSCALOOSA (L) BVORTAC 117.8/TCL **FSS:** TUSCALOOSA

TUSKEGEE (L) BVOR 117.3/TGE **FSS:** MONTGOMERY

WHITESBURG RBn MHW 407/ITS

ARIZONA

BUCKEYE (L) BVORTAC 110.6/BXK **FSS:** PHOENIX

CASA GRANDE (L) BVORTAC 114.8/CZG **FSS:** PHOENIX

COCHISE (L) BVORTAC 110.4/CIE **FSS:** DOUGLAS

DOUGLAS (L) BVOR 108.8/DUG **FSS:** DOUGLAS

FLAGSTAFF (L) BVOR 108.2/FLG **FSS:** PRESCOTT

GILA BEND (H) BVORTAC 116.6/GBN **FSS:** PHOENIX

GRAND CANYON (L) BVOR 109.0/GCN **FSS:** PRESCOTT

KINGMAN (T)VOR 108.8/IGM **FSS:** NEEDLES

LIBBY (L) VOR 111.6/FHU

PEACH SPRINGS (H) BVORTAC 112.0/PGS **FSS:** PRESCOTT

PHOENIX
§SKY HARBOR MUNI *IFR* 3E **FSS:** PHOENIX on Fld
1122 H103/8R–26L(2) (S–100, T–200, TT–370) BL4,10 S5 F5 JP1 U2 **VASI:** Rnwy 8R
Remarks: Only 8850′ rnwy 8R–26L avbl ngts. Rgt tfc rnwys 8R, 26R.
Phoenix Tower 118.7[1] 122.5R 120.9[2] **Gnd Con** 121.9
‡Clrnc Del 121.9
ATIS: 120.4
Radar Services: (BCN)
Phoenix App Con 119.2[3] 124.1[4] 115.6T
Phoenix Dep Con 118.1[3] 120.7[4]
Phoenix (H) BVORTAC 115.6/PHX 256° 5.3 NM to fld.
Phoenix RBn BH 326/PHX 264° 1.5NM to fld.
VHF/DF Ctc FSS.
Remarks: **VOT:** 109.0 [1]Rnwy 8L–26R [2]Rnwy 8R–26L [3]265–065° [4]066–264°

PRESCOTT (H) BVORTAC 114.1/PRC **FSS:** PRESCOTT

ARIZONA—*Continued*

ST. JOHNS (H) BVORTAC 112.3/SJN **FSS:** ZUNI

SAN SIMON (H) BVORTAC 115.4/SSO **FSS:** DOUGLAS

TUBA CITY (H) BVORTAC 113.5/TBC **FSS:** PRESCOTT

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§TUCSON INTL *IFR* 6S AOE **FSS:** TUCSON on Fld
2630 H120/12L-30R(3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2
Remarks: 1000′ overrun each end rnwy 12L-30R.
Tower: 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.5 134.1 126.2 125.9 125.1 122.5R
Dep Con 125.9 **Tfc Info** ctc App Con 25 mi out.
ASR Rnwy 30 Ceil 400 Vsby 1 mi Min Alt 3030.
VHF/DF[1] Ctc FSS.
(H) BVORTAC 117.1/TUS 254° 6.1NM to fld.
RBn H-SABZ 338●/TUS 083° 10.6NM to fld.
Remarks: [1] Unusable beyond 40 NM below 13,500′ MSL 345-070° below 12,500′ MSL 070-090°.

WINSLOW (H) BVORTAC 112.6/INW **FSS:** PRESCOTT
RBn HW 266/INW

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§YUMA MCAS/INTL *IFR* 3S AOE **FSS:** YUMA on Fld
213 H-133 (3L-21R(4) (S-103, T-225, TT-410) BL 4,6 S5 F4
Remarks: Rnwy 17-35 GWT (S-170, T-200, TT-400).
Tower 126.2 122.5R 119.3 **Gnd Con:** 121.9
VHF/DF Ctc twr.
(H) BVORTAC 116.8/YUM 167° 6.0NM to fld.
RBn MHW 344/NYL at fld.

ARKANSAS

BLYTHEVILLE (L) VOR 108.2/BYH
RBn HW 311/BYH

BRUINS RBn MHW 215/BSA **FSS:** MEMPHIS

CABOT (L) VOR 108.4/CBT
RBn HW 275/CBT

CROSSETT RBn MHW 396/CRT **FSS:** EL DORADO

DRAKE (T) BVOR 108.8/DAK **FSS:** FAYETTEVILLE

EL DORADO (L) BVORTAC 108.2/ELD **FSS:** EL DORADO

FAYETTEVILLE (H) BVORTAC 116.4/FYV **FSS:** FAYETTEVILLE

FLIPPIN (L) BVOR 115.1/FLP **FSS:** HARRISON

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§FORT SMITH MUNI *IFR* 4SE **FSS:** FORT SMITH on Fld
468 H80/7-25(2) (S-90, T-120) BL4,6,8A,9 S5
F5, JP1 U2 **RVV:** Rnwy 25
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
App Con 125.4 126.2 118.3 110.4T 109.5T
ILS 109.5 I-FSM Apch Brg 254° **LOM:** 223/FS
(L) BVORTAC 110.4/FSM 226° 5.2 NM to fld.
RBn HW 223/FS 254° 6.9NM to fld.
Remarks: LOM is HW.

HARRISON (L) BVOR 110.8/HRO **FSS:** HARRISON

HOT SPRINGS
§MEMORIAL FLD *IFR* 3SW **FSS:** PINE BLUFF (LC NA 4-4481)
535 H50/5-23(2) (S-35, T-49, TT-78) BL4 S5 F4 JP-1
Tower 120.3 122.5R 110.0T 248T **Gnd Con** 121.7
Hot Springs App Con 120.3 122.5R 110.0T 248T
Hot Springs (L) VOR 110.0/HOT on fld.
Hot Springs RBn MHW 385/HOT 061° 4.1NM to fld.

LITTLE ROCK
§ADAMS FLD *IFR* 2E **FSS:** PINE BLUFF (LC FR 6-4348)
257 H70/4-22(3) (S-49, T-173, TT-136) BL4,6,8A,9 S5
F4, JP1, JP4 U2 **RVV:** Rnwy 4

ARKANSAS—*Continued*

Remarks Fee civil acft over 10,000 lbs.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
ATIS[3]**:** 113.9
Radar Services: (BCN)
Little Rock App Con 119.5[2] 126.2 124.2[1] 122.5R 113.9T
Little Rock Dep Con 118.1
Tfc Info All inbnd acft ctc App Con 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I-LIT Apch Brg 041° **LOM:** 219/LI
Little Rock (H) BVORTAC 113.9/LIT 315° 3.8NM to rnwy 32.
Little Rock RBn H-SAB 353●/LIT 316° 3.3NM to rnwy 32.
Remarks: [1]001-180° [2]181-360 [3]Opers 1300-0400Z.

MONTICELLO (L) BVORTAC 111.6/MON **FSS:** PINE BLUFF

PINE BLUFF (L) BVORTAC 116.0/PBF **FSS:** PINE BLUFF

ROGERS RBn MHW 263/ROG **FSS:** FAYETTEVILLE

STUTTGART RBn MHW 269/SGT **FSS:** PINE BLUFF
Remarks: Owned by the city.

TEXARKANA (H) BVORTAC 116.3/TXK **FSS:** TEXARKANA
RBn SBH 329/TXK

WALNUT RIDGE (H) BVORTAC 114.5/ARG **FSS:** WALNUT RIDGE

CALIFORNIA

ARCATA
§ARCATA-EUREKA *IFR* 7NW **FSS:** ARCATA on Fld
217 H60(13-31)(2) (S-90, T-140, TT-260) BL5,6,8A,9,10 F4 DT2
VASI: Rnwy 13 **RVR:** Rnwy 31
Remarks: Rgt tfc rnwys 13, 19.
ILS 109.5 I-ACV Apch Brg 314° BC unusable **LMM:** 233/CV
VHF/DF Ctc FSS.
Remarks: SLMM unusable btn 120-150° beyond 5 NM.

AVENAL (H) BVORTAC 117.1/AVE **FSS:** PASO ROBLES

BAKERSFIELD
§MEADOWS FIELD *IFR* 4NW **FSS:** BAKERSFIELD on Fld
488 H57/12L-30R(2) (S-110, T-170, TT-300) BL4,6,8A,9
S5 F5, JP1 U2 DT2 **RVV:** Rnwy 30R
Tower 118.1 122.5R **Gnd Con** 121.7
Bakersfield App Con 118.8 115.4T **Bakersfield Dep Con** 118.8
ILS 109.9 I-BFL Apch Brg 299° **LOM:** 278/BF
VHF/DF Ctc FSS.
Bakersfield (H) BVORTAC 115.4/BFL 131° 3.4NM to fld.

BEALE (L) VOR 108.8/BAB

BIG SUR (L) BVORTAC 114.0/BSR **FSS:** SALINAS

BLYTHE (H) BVORTAC 117.4/BLH **FSS:** BLYTHE
RBn SABH 251●/BLH

BURBANK
§LOCKHEED AIR TERMINAL *IFR* 3NW **FSS:** LOS ANGELES (DL)
775 H69 (15-33)(2) (S-80, T-150, TT-280) BL5,6,8A,9,11
S5 F5, JP1, JP4 U2 **REIL** rnwy 15
Remarks: Rnwy 15 displaced threshold 900′. S 6060′ avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 dispaced threshold 410′ N. 6550′ lndg rnwy 33, tk off rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
Burbank Tower 118.7 122.7R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Burbank App Con 120.4
Burbank Dep Con 124.6
Tfc Info Ctc Burbank App Con 30 NM out on 120.4
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS[2] 109.5 I-BUR Apch Brg 076° **LOM:** 272/BU
VHF/DF[1] Ctc twr.
Remarks: [1]Unusable beyond 30 NM below 13,000′ 360°-085°; below 4000′ 085°-240°; below 6000′ 240°-320°; below 10,000′ 320-360°. [2]Glide slope unusable below 1075′ MSL.

CALIFORNIA—*Continued*

CAMARILLO RBn HW 359/CAV **FSS:** LOS ANGELES

CASTLE (L) VOR 114.2/MER
RBn MHW 409/ME

CHICO (T) BVOR 109.8/CIC **FSS:** RED BLUFF

COLTON RBn HWZ 397/SB

CONCORD
§BUCHANAN FIELD *IFR* 1N **FSS:** OAKLAND (DL)
19 H50/1L–19R(5) (S–60, T–80, TT–130) BL5 S5 DT2 F4
Remarks: Rgt tfc rnwys 1R, 19R, 32R, 14R. Rnwy 1L–19R threshold displaced 300′ each end, 4700′ avbl days, 4400′ avbl ngts.
Tower[1] 119.7 122.4R **Gnd Con** 121.9
Radar Services:
Travis App Con 119.9
T–BVOR 110.6/CCR 171° 3.1 NM to fld.
Remarks: [1]Oper 0700–2300 lcl.

CRESCENT CITY (L) BVORTAC 109.0/CEC **FSS:** CRESCENT CITY

CULVER CITY
HUGHES 3SW **FSS:** LOS ANGELES (DL)
22 H88(1) L4 S3 F4 **REIL:** Rnwy 23
Remarks: Fee. Clsd trans acft excp ofl bus, prior notification reqrd. Ctc 132.4 for rnwy lgts.
Tower:[1] 132.4 126.2 123.1 122.5R
Remarks: [1]Oper 1600–0145Z

DAGGETT (L) BVORTAC 113.2/DAG **FSS:** DAGGETT

DOWNEY RBn HW 371/DOW **FSS:** LOS ANGELES

EDWARDS (L) VORW 116.4/EDW
RBn MH 401/EDW

EL TORO (L) VOR 111.0/NZJ
RBn HW 410/NZJ

FARALLON ISLAND RBn HW 314/F

FELLOWS (L) BVORTAC 117.5/FLW **FSS:** BAKERSFIELD

FILLMORE (L) BVORTAC 112.5/FIM **FSS:** LOS ANGELES

FORT JONES (L) BVOR 109.6/FJS **FSS:** MONTAGUE

FORTUNA (L) BVORTAC 114.0/FOT **FSS:** ARCATA

§FRESNO AIR TERMINAL *IFR* 5 NE **FSS:** FRESNO on Fld
332 H92/11L–29R(3) (S–50, T–70, TT–140) BL5,6,8A,9 S5 F4, JP1, JP4 U2 DT2 **RVV:** Rnwy 11L. **RVR:** Rnwy 29R.
Remarks: Rgt tfc rnwy 7 & 11.
Tower 118.7 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 119.6 126.9 122.6R
Dep Con 126.9
ILS 110.3 I–FAT Apch Brg 289° **LOM:** 266/FA
VHF/DF Ctc FSS.
(H) BVORTAC 112.9/FAT 134° 7.1NM to fld.
RBn H–SAB 344●/FAT 049° 6.2 NM to fld.

§FRESNO–CHANDLER *IFR* 2W **FSS:** FRESNO (DL)
283 H35/11R–29L(2) (S–17) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 11R. Rnwy 29L threshold displaced 730′ NW, rnwy 11R displaced 495′ SE.
Chandler Tower[1] 121.1 122.5R 278T **Gnd Con** 121.7
Radar Services: (BCN)
Fresno App Con 119.6 126.9
Fresno Dep Con 126.9
Remarks: [1]Oper 1400–0600Z.

FRIANT (L) BVORTAC 115.6/FRA **FSS:** FRESNO

§FULLERTON MUNI *IFR* 3W **FSS:** LOS ANGELES (DL)
96 H31/6–24(1) (S–8) BL5,11 S5 F4 U4 DT2
REIL: Rnwy 24.

CALIFORNIA—*Continued*

Remarks: Rnwy 6 threshold displaced 437′ E. 2683′ avbl lndg rnwy 6. Rnwy 24 threshold displaced 263′ W. 2857′ avbl lndg rnwy 24. Rgt tfc rnwy 24. Entry alt 1200′ MSL. P-line NE. Overngt tiedown fee. Prior approval acft over 12,500 GWT and single eng acft 1000 or more hp. Pure jet acft prohibited.
Tower[1] 119.1 122.6R 121.5 **Gnd Con** 121.7
Radar Services:
Long Beach App Con 124.2 127.2 110.3T
Long Beach Dep Con 118.4 127.2
Remarks: [1]Oper 1400–0600Z.

GAVIOTA (L) BVORTAC 116.5/GVO **FSS:** SANTA BARBARA

GEORGE (L) VOR 108.6/VCV

GOFFS (L) BVOR 114.4/GFS **FSS:** NEEDLES

GORMAN (L) BVORTAC 116.1/GMN **FSS:** BAKERSFIELD

HAMILTON (L) VOR 109.0/SRF

§HAWTHORNE MUNI *IFR* 1E **FSS:** LOS ANGELES (DL)
64 H45/7–25(1) S–30, T–50) BL4,11 S–5 F4 U2 DT2
REIL[1] Rnwy 25
Remarks: Rnwy 7 threshold displaced 1025′ E, 3975′ avbl lndg. Rnwy 25 threshold displaced 475′ W. 4525′ avbl lndg. Prior apvl rqrd for sigle eng acft 1000 HP or more and jets. P-line NE. Rgt tfc E. [1]REIL inop 2300–0700.
Tower[1] 121.1 122.5R 121.5 **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 124.3[2] 125.2[3]
Remarks: [1]Oper 0700–2300 lcl time. [2]045°–224°. [3]225°–044°.

HAYWARD AIR TERMINAL *IFR* . 2SW **FSS:** OAKLAND (LC 562–7807)
46 H52/10R–28L(3) (S–100, T–190, TT–290) BL5 S5 F4 DT2
Remarks: TPA 600′ excp rnwy 10L–28R 800′.
Tower 118.9 122.5R 212T **Gnd Con** 121.7
Radar Services:
Oakland App Con 118.1 116.8T
Oakland Dep Con 124.7 120.9 116.8T
RBn MHW 242/HWD 243° 4 NM to fld
Remarks: [1]Oper 0600–2400 lcl time.

HECTOR (H) BVORTAC 112.7/HEC **FSS:** DAGGETT

IMPERIAL (H) BVORTAC 115.9/IPL **FSS:** IMPERIAL

JULIAN (L) BVORTAC 114.0/JLI **FSS:** SAN DIEGO

LAKE HUGHES (L) VORW 108.4/LHS **FSS:** PALMDALE

LA VERNE
BRACKETT FLD *IFR* 1SW **FSS:** ONTARIO (DL)
997 H40/8–26(1) BL4 S5 U2 DT2
Remarks: Rgt tfc rnwy 8. Avoid flgt over fair gnd bldgs.
Tower[1] 118.2 122.7R 121.5 **Gnd Con** 121.7
VFR ADV: Ctc March APP CON 124.0, 122.5R/DEP CON 125.5, 122.5R
Remarks: [1]Oper 0700–2300.

LEMOORE RBn MH 328/NLC

LINDEN (L) BVORTAC 115.5/LIN **FSS:** STOCKTON

LONG BEACH
§LONG BEACH (Daugherty Fld) *IFR* 3NE
FSS: LOS ANGELES (DL)
58 H100/12–30(5) (S–65, T–110, TT–180) BL5,6,9,12 S5 F5, JP1, JP4 U2 DT2 **RVR:** Rnwy 30.
Remarks: All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R 25R, 34R.
Long Beach Tower 119.4[1] 118.8[3] 120.5[2] 126.2[2] 122.4R[1]
Gnd Con 121.9
ATIS: 110.3

CALIFORNIA—*Continued*

Long Beach California—(Continued)

Radar Services:

Long Beach App Con 124.2 127.2 110.3T

Long Beach Dep Con 118.4

ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558

ILS 110.3 I–LGB Apch Brg 300° **LOM** 233/LG

VHF/DF Ctc twr.

(L) BVORTAC 115.7/LGB 274° 4.4NM to fld

Remarks: [1]For all left rnwys. [2]For all right rnwys. [3]Helio con. **VOT:** 109.0

§LOS ANGELES INTL *IFR* 9SW **FSS:** LOS ANGELES on Fld

126 H120/7R–25L(4) (S–100, T–180, TT–340) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwy 7R **RVV:** Rnwys 6, 24, 7R/L **RVR:** Rnwy 25L **REIL** Rnwy 7L, 7R

Remarks: U.S. Customs lndg rgts arpt. Rnwy 34 threshold displaced 1679′ N. Rnwys 25L, 25R thresholds displaced 600′ W. Rnwy 16–34 (S125 T200+ TT400+).

Tower 118.9 119.8 120.8[1] 122.7R **Gnd Con** 121.6 121.8 **‡Clrnc Del** 128.5 121.4

ATIS: 108.5

Radar Services:

App Con 124.9[2] 124.5[3] 113.6T 110.8T 109.9T

Dep Con 125.2[3] 124.3[2]

Tfc Info Expanded radar service avbl.

PAR Rnwy 25L Ceil 200 Vsby ½ mi Min Alt 326.

ASR Rnwys 7L, 7R, 6 Ceil 500 Vsby 1 mi Min Alt 626
Rnwys 25L, 25R, 24 Ceil 400 Vsby 1 mi Min Alt 426

ILS[4] 109.9 I–LAX Apch Brg 248° **LOM:** 266/LA

VHF/DF ctc twr.

(H) BVORTAC 113.6/LAX at fld.

RBn SABH 332●/LAX 245° 3.4 NM to fld.

Remarks: [1]Heli Operns. [2]035–224° [3]225–044° [4]Glide slope unusable below 300′ MSL. **VOT:** 112.0.

LOS ANGELES (VAN NUYS)

§VAN NUYS *IFR* 3NW **FSS:** LOS ANGELES (DL)

800 H80/(16R–34L/(2) (S–70, T–120, TT–210) BL5,11 S5 F4 JP1, JP4, JP5 U2 DT2 **REIL:** Rnwy 16R

Remarks: Rnwy 16R threshold displaced 1431′ N. 6569′ avbl lndg rnwy 16R. Rnwy 16L–34R daylgt use only. Rnwy 16L threshold displaced 1430′ N. 2570′ avbl lndg rnwy 16L. Parallel 2000′ strip btn 16L–34R and 16R–34L clsd except emerg.

Tower 120.2[2] 119.3[3] 126.2[4] 122.5R **Gnd Con:** 121.7

ATIS:[1] 113.1

Radar Services:

Burbank App Con 120.4

Burbank Dep Con 124.6

(L) VOR 113.1/VNY on fld.

Remarks: [1]Oper 0600–2200 lcl time. [2]360–149° and departure rnwy 16L–34R. [3]150–359° and departure rnwy 16R–34L. [4]Helicopter Operns. **VOT:** 109.0

LOS BANOS (L) BVOR 112.6/LSN **FSS:** FRESNO

MARYSVILLE (T) BVOR 110.8/MYV **FSS:** MARYSVILLE

MATHER (L) VORW 114.6/MHR

MAXWELL (L) BVORTAC 110.0/MXW **FSS:** MARYSVILLE

McCLELLAN RBn MHW 395/MCC

MODESTO

§CITY-COUNTY *IFR* 2 SE **FSS:** STOCKTON (DL)

96 H50 (2) BL4 S5 F4 DT2

Remarks: Rgt tfc rnwys 11R, 29R.

Tower[1] 120.0 122.7R **Gnd Con** 121.7

VFR ADV: Ctc Stockton APP CON on 125.1

Modesto (T) BVOR 108.4/MOD

Remarks: [1]Oper 1400–0600Z.

CALIFORNIA—*Continued*

MONTAGUE

SISKIYOU COUNTY *IFR* 4NE **FSS:** MONTAGUE on Fld

2651 H75(1) (S90 T190 TT280) BL4 S5 F4 DT2

Tower 126.2 118.7T 122.5R

Montague RBn BH 382/SIY

§MONTEREY PENINSULA *IFR* 3SE **FSS:** SALINAS (DL)

220 H50/10–28(2) (S–40, T–70, TT–120) BL5,6,8A,9 S5 F5, JP1 U2 DT2

Remarks: Rnwy 28 has downgrade 1½ percent. Lndg acft non-reversible props ctn during hours of darkness.

Monterey Tower 119.9 122.5R 281T **Gnd Con** 121.9

Monterey App Con 120.8

Monterey Dep Con 120.8

ILS[1] 110.1 I–MRY Apch Brg 096° **LOM:**[2] 281/MR

Remarks: [1]Unusable btn LMM and apch end rnwy. [2]LOM unusable beyond 6NM 130–150°.

§NAPA COUNTY 5S **FSS:** OAKLAND (DL)

33 H53/18–36(2) BL4 S5 F4 DT2

Tower[1] 118.8 122.7R **Gnd Con** 121.7

Hamilton App Con 118.2

Hamilton Dep Con 118.2

(L) BVORTAC 112.1/APC

Remarks: [1]Opers 0700–2300 lcl time.

NEEDLES (H) BVORTAC 115.2/EED **FSS:** NEEDLES

NORTON L) VORW 117.6/SBD

RBn MHW 347/BD

§OAKLAND INTL *IFR* 4S **FSS:** OAKLAND on Fld

6 H100/11–29(4) (S–100, T–160, T–290) BL6, 8A,9,14,15 S5 F5, TP1, JP4 U2 DT2 **RVV:** Rnwy 27R **RVR:** Rnwy 29

Remarks: Rgt tfc rnwys 27R, 9R, 33 & 11. Overngt tiedown fee.

Oakland Tower 118.3 126.0 122.6R 116.8T

Clrnc Del 121.1

Gnd Con 121.9 121.6

ATIS: 108.7 109.9

Radar Services: (BCN)

Oakland App Con 118.1[1] 116.8T 120.9[2]

Oakland Dep Con 124.7

Tfc Info Call App Con 25 mi out.

PAR[4] Rnwy 29 Ceil 200 Vslby ½ mi Min Alt 206

ASR Rnwy 11, 29 Ceil 400 Vsby 1 mi Min Alt 406.

ILS 108.7 I–INB Apch Brg 293° **LOM:** 266/IN
109.9 I–OAK Apch Brg 275° BC unusable

VHF/DF[3] Ctc twr.

Oakland (H) BVORTAC 116.8/OAK 095° 1.3NM to fld.

Oakland RBn SABH 362●/OAK on fld.

Remarks: [1]271–090° 090–270° [3]Unusable below 6000′ MSL 360–050°, beyond 20 NM. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 108.0.

OCEANSIDE (H) BVORTAC 115.3/OCN **FSS:** SAN DIEGO

§ONTARIO INTL *IFR* 2E **FSS:** ONTARIO on Fld

952 H100/7–25(2) (S80, T120, TT220) BL6,8A,9 S5 F5, JP1 JP4 U2 DT2 **RVR:** Rnwy 25

Remarks: Rnwy 7 threshold displaced 1000′ on W end. 1000′ overrun E end rnwy 7–25.

Tower 118.5 122.5R **Gnd Con** 121.9

Clrnc Del 120.6

Radar Services: (BCN)

March App Con 124.0 122.5R 111.4T

March Dep Con 125.5 122.5R

ILS 109.7 I–ONT Apch Brg 255° **LOM:** 227/OM

(H) BVORTAC 112.2/ONT 320° 9.4 to fld.

OXNARD (L) VOR 111.2/OAF

CALIFORNIA—*Continued*

OXNARD

§VENTURA COUNTY *IFR* 1W **FSS:** SANTA BARBARA (DL)
43 H59/7-25(1) (S-36, T-48 TT-75) BL4,11 S5 F4, JP4 U2 DT2 **REIL** rnwy 25.
Remarks: Rnwy 25 threshold displaced 1382′ E. 4568′ avbl lndg rnwy 25. Rnwy 7 threshold 756′ W, 5194′ avbl lndg.
Tower 120.7 122.4R ~~121.5~~ **Gnd Con** 121.9
Oxnard App Con 124.7 122.5R
Oxnard Dep Con 124.7
Ventura (L) BVORTAC 108.2/VTU
Remarks: [1]Opers 0600-2200 lcl time.

PALMDALE (H) BVORTAC 114.5/PMD **FSS:** PALMDALE

PALM SPRINGS (L) BVOR 115.5/PSP **FSS:** THERMAL

PARKER (H) BVORTAC 117.9/PKE **FSS:** BLYTHE

PASO ROBLES (L) BVORTAC 114.3/PRB **FSS:** PASO ROBLES

POINT REYES (L) BVOR 113.7/PYE **FSS:** OAKLAND

POMONA (L) BVORTAC 110.4/POM **FSS:** ONTARIO

PORTERVILLE (L) BVOR 109.2/PTV **FSS:** BAKERSFIELD

PRIEST (L) BVORTAC 110.0/ROM **FSS:** PASO ROBLES

RED BLUFF (H) BVORTAC 115.7/RBL **FSS:** RED BLUFF
RBn SABH 338●/RBL

REDDING (T) BVOR 108.4/RDD **FSS:** RED BLUFF

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§RIVERSIDE MUNI *IFR* 4SW **FSS:** ONTARIO (DL)
816 H46/9-27(2) BL5, 11 S5 F4 U2 DT2 **REIL:** Rnwy 27
Remarks: Rolling. Lndgs to S prohibited on N/S rnwy.
Tower[1] 121.0 122.6R ~~121.5~~ **Gnd Con** 121.7
VFR ADV Ctc March App Con 124.0 122.5R/Dep Con 125.5 122.5R
(T) VOR 111.4/RAL
Remarks: [1]Opers 0600-2200 lcl time.

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§SACRAMENTO MUNI *IFR* 3SW **FSS:** SACRAMENTO on Fld
21 H60/2-20(3) (S-90, T-120, TT-180) BL4,6 8A, 9 S5 F4, TP-1 U2 DT2 **RVV:** Rnwy 2
Remarks: Antenna NNW. 2200′ apch lgtg rnwy 2. Perimeter txwy to rnwy 30 not visible from twr, ctc twr when number one for dptr.
Tower 119.5 122.5R **Gnd Con** 121.9
ATIS: 110.3
Radar Services: (BCN)
App Con 119.1 125.2 121.0 122.5R
Dep Con 124.5
VHF/DF Ctc FSS.
ILS 110.3 I-SAC Apch Brg 016° **LOM:** 356/SA
(H) BVORTAC 115.2/SAC 016° 4.4 NM to fld.

SALINAS (H) BVORTAC 117.3/SNS **FSS:** SALINAS

SALTON SEA RBn HW 407/NJ2

SAN CLEMENTE IS RBn MH 350/NZZ

SAN DIEGO (H) BVORTAC 117.8/SAN **FSS:** SAN DIEGO

SAN DIEGO

§MONTGOMERY FLD 6N **FSS:** SAN DIEGO (LC 296-3181)
423 H34/10-28(2) (S-30) BL5 S5 F4 U2 DT2
Remarks: Rgt tfc rnwys 5, 10.
Tower[1] 119.2 122.6R ~~121.5~~ **Gnd Con** 121.9
Remarks: [1]Opers 0700-2300 lcl time

§SAN DIEGO CO—GILLESPIE FLD 10NE
FSS: SAN DIEGO (LC 296-3181)
385 (H53(9-27(2) (S-60, T-90, TT-140) BL4 S5 F4 U2 DT2
Remarks: Rgt tfc rnwy 9. Rnwy 27 threshold displaced 1300′ W. 4040′ avbl lndg rnwy 27. Rnwy 17-35 closed to acft over 12,500 lbs GWT. Displaced threshold 405′ S rnwy 17, 705′ N rnwy 35.
Gillespie Tower[1] 120.7 122.7R **Gnd Con** 121.7
Remarks: [1]Oper 0700-2300 lcl time

§SAN DIEGO INTL-LINDBERGH FLD *IFR* 2W AOE
FSS: SAN DIEGO (LC 296-3181)
15 H87/9-27(2) (S-100, T-200, TT-400) BL5,6,8A,11 S-5 F5, JP1 U2 DT2 **REIL:** Rnwy 27
Remarks: Rnwy 27 threshold displaced 600′ W. 8100′ avbl lndg rnwy 27. Unless otherwise instructed after tkoff on rnwy 27, turn rgt to 315° mag for noise abatement purposes. Ctc twr for preferential rnwy sys under VFR conditions.
Tower 118.3 122.4R 109.6T **Gnd Con** 121.7
ATIS: 110.9
Radar Services: (BCN)
San Diego App Con 119.6 127.7 125.7[1] 125.3[2] 122.7R 110.9T
San Diego Dep Con 125.7[3] 125.3[4]
Tfc Info Ctc App Con over Cardiff, Barrett Lake, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I-SAN Apch Brg 092° **LOM:** 278/SA
Lindbergh (L) BVOR 109.6/LIF on fld.
Remarks: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. **VOT:** 109.0

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§SAN FRANCISCO INTL *IFR* 8 SE **FSS:** OAKLAND (DL)
11 H95(10L-28R) (4) (S-200, T-200, TT-400) BL6,8A,9,10,11,12 S-5 F5, JP1 U2 DT2 **VASI:** Rnwy 19L **RVR:** Rnwy 28R
Remarks: U.S. Custom lndg rgts arpt. Rnwy 28R threshold displaced 200′ SE. 9496′ avbl lndg rnwy 28R. Rnwy 1R threshold displaced 1100′ SW. 8400′ avbl lndg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop.
Tower 120.5 122.7R **Gnd Con** 121.8
‡Clrnc Del 121.4
ATIS: 111.2
Radar Services:
App Con 124.9[1] 119.3[2] 111.2T 109.5T
Dep Con 124.4 128.5
Tfc Info Ctc OAK app con 0700-1500 for trml radar service.
PAR[3] Rnwy 28R Ceil 200 Vsby ½ mi Min Alt 212.
ASR Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 412.
Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 512
ILS 109.5 I-SFO Apch Brg 281° **LOM:** 379/SF
VHF/DF Ctc twr.
(L) VOR 111.2/SFO at fld.
RBn MHW 275/SIA 191° 0.6 to rnwy 19L.
Remarks: [1]315-134°, [2]135-314°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0. VOT unusable in ramp area adj to concourse.

SAN FRANCISCO GAP RBn MHW 332/SFG **FSS:** OAKLAND

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§SAN JOSE MUNI *IFR* 2 NW **FSS:** OAKLAND (DL)
56 H78/12R-30L (2) (S-100, T-150, TT-230) BL6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30L
Remarks: Rnwy 30L threshold displaced 1475′ NW. 6312′ avbl lndg rnwy 30L. Twr unable to see NE tfc patn. Displaced threshold clsd to acft over 12,500 lbs.
Tower 120.7[2] 122.4R 124.0[1] **Gnd Con** 121.7
ATIS[3] 108.2
Radar Services: (BCN)
Moffett App Con 120.1 123.7 122.4R 110.9T 108.2T
Moffett Dep Con 121.3 122.4R 108.2T
Tfc Info Ctc Moffett APP CON on 120.1 25 mi out.
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
(L) VOR 108.2/SJC on fld.
Remarks: [1]Rnwys 30L-12R [2]Rnwys 30R-12L [3]Opers 0800-2000 lcl time

CALIFORNIA—*Continued*

SAN LUIS OBISPO (L) BVORTAC 112.4/SBP **FSS:** PASO ROBLES

SANTA ANA

§ORANGE COUNTY ***IFR*** 4 S **FSS:** LOS ANGELES (DL)
53 H57/IL–19R(2) (S–68, T–95, TT–170) BL4,6 S5 F4, JP1 U2 DT2
Tower[1] 119.9 123.8[2] 122.5R ~~121.6~~ **Gnd Con** 121.7
ATIS: 108.8
Radar Services: (BCN)
El Toro App Con 121.3 134.1 124.1x 122.5R 108.8T
El Toro Dep Con 121.3
Santa Ana (L) VOR 108.8/SNA at fld.
Remarks: [1]Oper 1400–0700Z. [2]For pattern to the W for long rnwy.

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§SANTA BARBARA MUNI ***IFR*** 7 W **FSS:** SANTA BARBARA on fld
14 H50/7–25 (2) (S–40, T–71, TT–117) BL5,6,8A,9 S5 F5, JP1, U2 DT2 **RVR:** Rnwy 7
Remarks: Apch lgts 2900′ long. Rnwy 7–25 overrun unlgtd. Rnwy 25 threshold displaced 296′ E end rnwy 25, 4420′ avbl lndg rnwy 25.
Tower 119.7 122.7R 110.3T **Gnd Con** 121.7
App Con 125.4
ILS 110.3 I–SBA Apch Brg 073°
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld
VHF/DF: Ctc FSS

SANTA CATALINA (L) BVOR 111.6/SXC **FSS:** LOS ANGELES

SANTA MARIA (T) VOR 109.0/SMX

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§SANTA MONICA MUNI ***IFR*** 3 E **FSS:** LOS ANGELES (DL)
175 H50/3–21 (1) S–80, T–120, TT–220) BL4,10,11 S5 F5, JP1 JP5 U2 DT2 **REIL:** rnwy 21 **VASI:** rnwy 21
Remarks: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free first 6 hrs. Rgt tfc rnwy 3. Overngt tie down FEE only.
Tower[3] 120.1 122.6R ~~121.5~~ **Gnd Con** 121.9
Radar Services:
Los Angeles App Con 124.9[1] 124.5[2] 113.6T 110.8T 109.9T
Los Angeles Dep Con 124.3[1] 125.2[2]
(L) VOR 110.8/SMO at fld.
Remarks: [1]045°–225°, [2]225°–044° [3]Oper 0700–2300 lcl time. **VOT:** 110.2. VOT unusable S side of rnwy 3 from apch end to a point 800′ NE.

SANTA ROSA

§SONOMA COUNTY ***IFR*** 6 NW **FSS:** UKIAH (DL)
125 H50/14–32(2) (S–80, T–130, TT–220) BL4 S5 F4 U2 DT2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) VOR 109.4/STS at fld.
Remarks: [1]Oper 0600–2200 lcl time.

SAUSALITO (L) BVORTAC 110.4/SAU **FSS:** OAKLAND

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§STOCKTON METROPOLITAN ***IFR*** 3S **FSS:** STOCKTON on fld
27 H86/11L–29R(4) (S–100, T–200, TT–400) BL6,8A,9,12 S5 F4 TP1 U2 DT2 **RVV:** Rnwy 29R
Remarks: 1500′ apch lgt sys rnwy 29R. Minimum VFR alt 1500′ when within 1 mi radius Sharpe AAF aprxly 3.5 NM SSW of fld. Rgt tfc rnwys 11L, 11R.
Tower 120.3 122.5R **Gnd Con** 121.9
App Con 125.1 116.0T 109.1T
ILS 109.1 I–SCK Apch Brg 291° BC unusable **LOM:** 271/SC
Stockton (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.

TAHOE VALLEY

§LAKE TAHOE 2SE **FSS:** SACRAMENTO (DL)
6263 H85/18–36(1) (S70 T120 TT230) BL4, 5 S5 F4 JP1 U2 DT2
Remarks: Surrounded by mtns. Tiedowns avbl. Rgt tfc rnwy 36. Rnwy 36 threshold displaced 2040′. UNICOM opers dalgt hrs only.

CALIFORNIA—*Continued*

Tower:[1] 119.0 122.5R **Gnd Con:** 121.9
Lake Tahoe (L) BVOR[2] 113.2/LTA
Remarks: [1]Opers 0700–2300 lcl time [2]Dec 16, class to be BVORTAC.

THERMAL (H) BVORTAC 116.2/TRM **FSS:** THERMAL

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§TORRANCE MUNI ***IFR*** 3 SW **FSS:** LOS ANGELES (DL)
101 H50/11L–29R(2) (S–30, T–50,) BL4 S5 F4 U2 DT2
Remarks: Both ends rnwy 11L–29R displaced thresholds 550′. 4450′ avbl lndg both directions. Rnwy 11R–29L open 6 am to 10 pm. Rnwy 11L–29R and perimeter txwy only lgtd 10 pm to 6 am.
Tower[1] 120.9 124.0 122.7R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Los Angeles App Con 124.9[2] 124.5[3] 113.6T 109.9T
Los Angeles Dep Con 125.2[3] 124.3[2]
Long Beach Dep Con 118.4
Remarks: [1]Oper 0600–2200 lcl time. [2]045°–224°. [3]225–044°.

TRAVIS (L) VOR 116.4/SUU **FSS:** SACRAMENTO

TWENTY NINE PALMS (L) BVORTAC 114.2/TNP **FSS:** THERMAL

UKIAH (H) BVORTAC 112.3/UKI **FSS:** UKIAH

VANDENBERG (L) VOR 111.8/VBG

VISALIA (T) VOR 109.4/VIS

WILLIAMS (L) BVORTAC 114.4/ILA **FSS:** MARYSVILLE

WOODSIDE (L) BVORTAC 111.4/OSI **FSS:** OAKLAND

COLORADO

AKRON (L) BVORTAC 114.4/AKO **FSS:** AKRON

ALAMOSA (H) BVORTAC 113.9/ALS **FSS:** TRINIDAD

BUCKLEY (T) VOR 112.7/BKF

COLORADO SPRINGS

§PETERSON FIELD ***IFR*** 6 SE **FSS:** DENVER (LC 634–3127)
6172 H110/17–35(3) (S–100, T–200, TT–400) BL4,6,8A,9 S5 F5, JP1, JP4 DT2 **RVV:** Rnwy 35 **VASI:** Rnwys 30, 35
Remarks: 1000′ overrun each end rnwy 17–35.
Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services:
Colorado Springs App Con 118.5 122.5R 109.9T
Colorado Springs Dep Con 120.2
Tfc Info Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby ½ mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
ILS 109.9 I–COS Apch Brg 347° **LOM:** 407/CO
Colorado Springs (L) BVORTAC 112.5/COS 192° 9 NM to fld.
Colorado Springs RBn MHW 407/CO 347° 3.3 NM to fld.
VHF/DF[1] Ctc twr.
Remarks: [1]Coverage 30 nmi at MEA except 24 nmi 340–055° and 15 nmi 245–270° from facil. **LOM** is MHW.

CORTEZ (L) BVOR 108.4/CEZ **FSS:** FARMINGTON

DENVER

§STAPLETON INTL ***IFR*** 4 E **FSS:** DENVER on Fld
5331 H115/17–35(3) (S–120, T–200, TT–350) BL4,6,8A,9,10,11, 14, 15 S5 F5, JP1 U2 **VASI:** Rnwys 8R, 17
RVR: Rnwy 17, 26L, 35 **REIL:** Rnwy 17.
Remarks: U.S. Customs lndg rgts arpt. (3 hr advance notice rqd.). Twr unable to determine whether acft on correct final apch to rnwys 8L–8R and 26L–26R. Rnwy 17–35 clsd every Mon and Thurs 1430–1630Z.
Denver Tower 118.3 126.9 119.5 122.5R **Gnd Con** 121.9
‡Clrnc Del: 121.8
ATIS: 110.3

COLORADO—*Continued*

Stapleton Intl—(Continued)
Radar Services: (BCN)
Denver App Con 119.3[1] 118.3[3] 126.9 122.5R 120.5[2] 116.3T 108.1T
Denver Dep Con 124.8 119.5[3] 126.9
Tfc Info Ctc App Con 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I–DEN Apch Brg 257° **LOM:** 362/DE
108.1 I–SPO Apch Brg 350°
VHF/DF Ctc twr
Denver (H) BVORTAC 116.3/DEN 214° 8.1NM to fld.
Remarks: [1]270–089° [2]090–269° [3]Mostly used VFR dalgt hrs.
VOT: 111.0

DOVE CREEK (L) BVORTAC 114.4/DVC FSS: FARMINGTON

DURANGO (L) BVOR 108.2/DRO FSS: FARMINGTON

ENGLEWOOD RBn H–SAB 379●/EWD FSS: DENVER

GILL (L) BVOR 108.8/GIL FSS: DENVER

GRAND JUNCTION
§WALKER FIELD *IFR* 3NE **FSS:** GRAND JUNCTION on Fld
4857 H75/11–29(2) (S–60, T–80, TT–120) BL2,4,5,6,11,12 S5 F4 JP1 TP1 U2 **REIL:** Rnwys 11, 29
Tower 118.1 122.5R **Gnd Con** 121.9
Grand Junction App Con 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I–GJT· Apch Brg 110°
Grand Junction (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
Grand Junction RBn[2] **MHW** 396/GJT 110° 9.3NM to fld.
Remarks: [1]Glide slope unusable below 5132′. [2]Usable for apchs and transitions to apch only.

GUNNISON (H) BVORTAC 114.9/GUC FSS: GRAND JUNCTION

HUGO (L) BVOR 108.4/HGO FSS: LA JUNTA

KIOWA (L) BVORTAC 114.2/IOC FSS: DENVER

KREMMLING (H) BVORTAC 113.8/RLG FSS: EAGLE

LAMAR (H) BVORTAC 116.9/LAA FSS: LA JUNTA

MEEKER (H) BVORTAC 115.2/EKR FSS: EAGLE

PETERSON (L) VORW 109.0/PEF

§PUEBLO MEML *IFR* 5E FSS: PUEBLO on Fld
4725 H85/7–25(3) (S–100, T–130, TT–200) BL4,6,8A,9 S5 F4 TP1 **RVV:** Rnwy 7
Remarks: Acft not visible from twr at junction of downwind and base legs rnwy 25 middle of rnwy 12–30.
Tower 119.1 126.2 122.5R **Gnd Con** 121.9
App Con 120.1 116.7T
ILS 109.5 I–PUB Apch Brg 075° **LOM:** 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4NM to fld.
RBn MHW 373/PCX 255° 6NM to fld.

THURMAN (L) VORW 112.9/TXC FSS: AKRON

TOBE (L) BVORTAC 115.8/TBE FSS: TRINIDAD

TRINIDAD RBn SABH 329●/TAD FSS: TRINIDAD

CONNECTICUT

§BRIDGEPORT MUNI *IFR* 3SE
FSS: WINDSOR LOCKS (LC ED 5–6097)
9 H47 (11–29(3) (S–36.5, T–55.5) BL5,6 S5 F5 JP1, JP4 U2 DT2
Remarks: U.S. Customs Indg rgts.
Tower 120.9 122.5R 108.8T **Gnd Con** 121.9
Westchester App Con 121.2 122.5R 3023.5Rx
(L) VOR 108.8/BDR on fld.

GROTON (T) BVOR 108.4/GON **FSS:** PROVIDENCE, R.I.; CS/T
RBn[1] **MHW** 245/GON (LC GI–3–3245)
Remarks: [1]Oper by State.

CONNECTICUT—*Continued*

HARTFORD (L) BVORTAC 114.9/HFD **FSS:** WINDSOR LOCKS
RBn SBMHZ 329/HFD

MADISON (L) BVORTAC 111.4/MAD **FSS:** WINDSON LOCKS

NEW HAVEN (T) BVOR 110.0/HVN **FSS:** WINDSOR LOCKS

NORWICH (L) BVORTAC 109.8/ORW **FSS:** PROVIDENCE

PUTNAM (L) BVORTAC 113.8/PUT **FSS:** WORCESTER

WINDSOR LOCKS
§BRADLEY FIELD *IFR* 3W **FSS:** WINDSOR LOCKS on Fld.
173 H95/6–24(3) (S–157, T–200, TT–400) BL5,6,8A,9,10,14,15 S5 F5, JP4,5 U2 DT2 **VASI:** Rnwy 33
Remarks: U.S. Customs Indg rgts arpt.
Tower 120.3 122.5R **Gnd Con:** 121.9
Radar Services:
App Con 119.4 124.6 122.5R
Dep Con 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I–BDL Apch Brg 058° **LOM:** 388/BD
Remarks: Glide slope rnwy 6 unusable below 373′.

DELAWARE

DOVER (T) VOR 108.4/DOV
Remarks: Unrel 035–065° beyond 20NM

KENTON (L) BVORTAC 116.8/ENO **FSS:** MILLVILLE

NEW CASTLE (L) BVORTAC 114.0/EWT **FSS:** PHILADELPHIA

WATERLOO (L) BVORTAC 112.6/ATR **FSS:** SALISBURY

WILMINGTON
§GREATER WILMINGTON *IFR* 4S **FSS:** MILLVILLE (LC 652–5419)
79 H70/1–19(4) (S–200, T–300, TT–500) BL4,6,8A,9 S5 F4, JP1 U2 DT2 **RVR:** Rnwy 1.
Remarks: ILS apch zone rnwy 1 has penetrations in the 50.1 plane. Rnwy 5–23 clsd acft over 12,500 lbs.
New Castle Tower 120.3 122.5R 110.3T **Gnd Con** 121.9
New Castle App Con 125.0 110.3T
ILS 110.3 1–ILG Apch Brg 014° BC unusable **LOM:** 248/IL
VHF/DF Ctc twr.

DISTRICT OF COLUMBIA

GEORGETOWN RBn MHW 323/GTN

WASHINGTON
§DULLES INTL *IFR* 21W **FSS:** WASHINGTON (DL)
313 H115/(IL–19R)(3) (S–200, T–290, TT–500) BL6,8A,9,10,14,15 S5 F5,JP1,JP5 U2 DT2 **VASI:** Rnwy 12 **RVR:** Rnwy 1R, 19L, 19R
Remarks: U.S. Customs Indg rgts Arpt. RVR rnwy 1R avail apch and roll out.
Tower 120.1 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.4
Radar Services: (BCN)
App Con 119.2 126.1
Dep Con 125.5
Tfc Info: Expanded radar service abl arr: 126.1 Dep: 125.5
PAR[1] Rnwy 1R Ceil 200 Vsby ½ mi Min Alt 513
ASR Rnwys 1R, 1L, 12, 19R, 19L Ceil 400, Vsby 1 mi, Min Alt 713
Rnwy 30 Ceil 500, Vsby 1 mi, Min Alt 813
ILS 111.3 I–DLX Apch Brg 186° BC unusable
109.3 I–DIA Apch Brfi 006° BC unusable **LOM** 346/DI
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request.

§WASHINGTON NATIONAL *IFR* 3S **FSS:** WASHINGTON on Fld
15 H69/18–36(3) (S–100, T–200, TT–400) BL4,6,8A,9,10,11,14,15 S5 F5,JPI U2 DT2 **VASI:** Rnwys 15, 18 **RVV:** Rnwys 18, 15
RVR: Rnwy 36 **REIL** Rnwys 15, 33, 3, 21, 18

DISTRICT OF COLUMBIA—*Continued*

Washington National (Continued)

Remarks: U.S. Customs lndg rgts arpt. Very limited parking. Caution turbulance apch ends rnwy 21, 33 and 36. Rgt tfc rnwys 15, 18, 21. Special Air Traffic Rules—Part 93. Subpart C in effect.
Tower 119.1 122.5R **Gnd Con** 121.7
‡**Clrnc Del** 127.7
ATIS: 111.0
Radar Services: (BCN)
App Con 120.8[2] 127.0[1] 122.5R 128.8 109.9T
Dep Con 118.1[1] 126.55[2]
Tfc Info: Expanded radar service avbl: Arr 119.3 Dep 118.3
PAR[3] Rnwy 36 Ceil 200 Vsby ½ mi Min Alt 215
ILS 109.9 I-DCA Apch Brg 003° BC unusable **LOM:** 332/DC
VHF/DF Ctc twr.
Washington (L) VORTAC 111.0/DCA at fld.
Washington RBn H–SAB 332●/DC 001° 4.6 NM to fld.
Remarks: [1]West. [2]East. Circling PAR avbl on 15 min notice durg VFR conditions. [3]Radar monitoring instrument apchs only at pilot's request. LOM is H-SAB. **VOT:** 108.2.

FLORIDA

BISCAYNE BAY (L) BVOR 117.1/BSY **FSS:** MIAMI

CECIL (L) VORW 108.2/NCZ

CRESTVIEW (H) BVORTAC 115.9/CEW **FSS:** CRESTVIEW

CROSS CITY (L) BVORTAC 112.0/CTY **FSS:** GAINESVILLE

§DAYTONA BEACH MUNI ***IFR*** 3SW **FSS:** ORLANDO (LC255–4767)
34 H57/6–24(3) (S–60, T–80) BL4,6,8A,9
S5 F5, JP1 U2
Remarks: Rgt tfc rnwy 6.
Tower 120.7 126.2 122.5R **Gnd Con** 121.9
App Con 123.9 122.5R 112.6T 109.7T
ILS[1] 109.7 I–DAB Apch Brg 065° **LOM:** 263/DA
(H) BVORTAC 112.6/DAB 156° 7.4NM to fld.
Remarks: [1]Glide slope unusable below 150′ MSL.

DESTIN RBn HW 201/DES

EGLIN (L) VOR 110.8/VPS

EGMONT KEY RBn HW 310/H

FT. LAUDERDALE-EXECUTIVE IFR 5NW **FSS:** MIAMI (LC 524–0233)
14 H40(3) (Max 20) BL4 S5 F5 JP4
Remarks: Attended 0700–2000.
Executive Tower:[1] 125.2 122.6R
Remarks: [1]Opers 1100–0300Z daily.

§FT. LAUDERDALE-HOLLYWOOD INTL ***IFR*** 3SW AOE
FSS: MIAMI (LC 524–0233)
10 H80/9–27(3) (S–115, T–200, TT–400) BL4 S5 F5, JP1 U2
Remarks: Rnwy 9 threshold displaced 613′ Rnwy 27 threshold displaced 602′. 1045′ AGL twr 7 NM SSW.
Fort Lauderdale Tower 119.3 122.5R 111.4T
Gnd Con 121.7
Radar Services: (BCN)
Miami App Con 123.9 119.7
Miami Dep Con 128.0 119.7
Ft Lauderdale (L) BVOR 111.4/FLL on fld.
Ft Lauderdale RBn MHW 242/FL 135° 4.5NM to rnwy 13.

FORT MYERS (L) BVORTAC 117.6/FMY **FSS:** FORT MYERS
RBn BH 341/FMY

FRANKLAND RBn MHW 368/FKD **FSS:** ST. PETERSBURG

GAINESVILLE (H) BVORTAC 116.2/GNV **FSS:** GAINESVILLE

GREENVILLE (L) BVOR 109.0/GEF **FSS:** TALLAHASSEE

HOLLYWOOD
§NORTH PERRY 5W **FSS:** MIAMI (LC 524–0233)
9 H31/4–22(4) (Max-16) BL5 S5 F4 U2

FLORIDA—*Continued*

Remarks: Two way rdo required.
Tower[1] 121.3 122.4R
Remarks: [1]Opers 1200–0200Z.

HOMESTEAD (L) VOR 108.2/HST
RBn MHW 221/HST

JACKSONVILLE
§IMESON ***IFR*** 5N **FSS:** JACKSONVILLE on Fld
52 H79/5–23(3) (S–62, T–110, TT–200) BL4,6,12 S5 F5, JP4 U2
RVV: Rnwy 5
Remarks: U.S. Customs lndg rgts arpt. Caution on ILS apchs. Brightly lighted bridge 1¼ mi SW of apch end of rnwy 5 could give false impression of being a rnwy during poor vis conditions. 1500′ apch lgt sys rnwy 5. Rnwy 9 threshold displaced 410′ E, rnwy 12 displaced 335′ W.
Jacksonville Tower: 118.3 126.2 122.5R 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Jacksonville App Con 119.0 126.2 122.5R 120.3 114.5T 110.3T **Jacksonville Dep Con** 124.9 126.2
Tfc Info: Ctc App Con on 119.0 25 mi out.
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452.
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I-JAX Apch Brg 045° BC unusable **LOM:** 221/JA
Jacksonville (H) BVORTAC 114.5/JAX 250° 3.5NM to fld.
Jacksonville RBn H–SAB 344●/JAX 270° 1.4NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Glide slope unusable below 150′. **VOT:** 111.0

§KEY WEST INTL ***IFR*** 2 E AOE **FSS:** KEY WEST on Fld
4 H48/9–27(1) (S–30, T–40) BL4 S3 F4
Remarks: Fee for commercial and hired acft only. Rgt tfc rnwy 9. Rnwy lgts on req after 2200 to Key West FSS.
Tower[1] 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Navy Key West App Con 118.7 122.5R
VFR ADV Ctc Key West rdo 0300–1100Z
(H) BVORTAC 113.5/EYW 128° 1.7NM to fld.
RBn SBH 332/EYW 066° 1.2NM to fld.
Remarks: [1]Oper 0600–2200 lcl time.

LA BELLE (L) BVOR 110.4/LBV **FSS:** FORT MYERS

§LAKE CITY MUNI 3 E **FSS:** GAINESVILLE
202 H68/10–28(4) (S–75, T–140, TT–250) *L S5 F4 U1
Tower[1] 126.2
Remarks: [1]Oper 1300–2130 Mon-Fri; Controls Military Traffic only. Bcn opers on prior arrangement.

LAKELAND (H) BVORTAC 116.0/LAL **FSS:** ST. PETERSBURG

MARATHON RBn HW 260/MTH **FSS:** KEY WEST

MARIANNA (L) BVOR 114.0/MAI **FSS:** DOTHAN

MELBOURNE
§JOHN F KENNEDY MEML ***IFR*** 2 NW **FSS:** MELBOURNE on Fld
32 H112/(9–27(3) (S–85, T–145, TT–270) BL4 S5 F4, JP5 U2
Remarks: 9603′ rnwy 9–27 available ngts, displaced threshold rnwy 27 1589′W
Melbourne Tower[1] 118.2 122.5R **Gnd Con** 121.9
Radar Services:
Patrick App Con 118.4
Patrick Dep Con 118.4
Melbourne (L) BVOR 110.0/MLB on fld.
Melbourne RBn HW 257/MLB 087° 2.1NM to fld.
Remarks: [1]Oper 0600–2400 daily, VFR use only.

MIAMI
§MIAMI INTL ***IFR*** 8 NW AOE **FSS:** MIAMI on Fld
9 H105/9L–27R (4) (S–200, T–200 TT–400) BL4,6,8A,9,10 S5 F5, JP1, JP5 **VASI:** Rnwy 12 **RVR:** Rnwys 9L, 27L

FLORIDA—*Continued*

Miami Intl—(Continued)

Remarks: Fee. Clsd non engine acft.
Tower 118.3 120.5 125.0 126.2 122.4R **Gnd Con** 121.8
‡Clrnc Del 127.5
ATIS: 115.9
Radar Services: (BCN)
App Con 118.1[1] 128.0 123.9[2] 122.4R
Dep Con 128.0[2] 119.7
Tfc Info Ctc Twr 20 mi out or remain above 2500′.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509. Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409.
ILS 110.3 I–MFA[5] Apch Brg 087° **LOM:**[4] 365/MF
109.5 I–MIA[3] Apch Brg 267° **LOM:** 248/MI
VHF/DF Ctc twr.
(H) BVORTAC 115.9/MIA 139° 13.2NM to rnwy 12
RBn H–SAB 365●/MF 087° 4.5NM to rnwy 9L.
Remarks: [1]090°–269° [2]270°–089°, 1400′ MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]Glide slope rnwy 27 unusable below 175′ MSL. [4]LOM is H–SAB. [5]Glide slope rnwy 9L unusable below 130′ MSL. **VOT:** 112.0.

§OPA LOCKA ***IFR*** 10 NW **FSS:** MIAMI
9 H80/9L–27R(4) (S–96, T-155, TT–290) BL4, 6, S5 F5, JP1, JP4
Remarks: Displaced thresholds all rnwys except 9L–27R. 1045′ TV twr 5 NM NNE. JP–1 fuel avbl on 1 hrs notice. Clsd to non-engine acft.
Tower[1] 120.7 118.6 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
Miami App Con 120.5 118.1
Miami Dep Con 128.0 119.7
Remarks: [1]Oper 1100–0300Z.

§TAMIAMI 8 W **FSS:** MIAMI
10 H38/14–32 (3) BL4 S5 F4
Remarks: Rgt tfc rnwys 9, 14. Clsd non-engine acft.
Tower[3] 121.1 122.6R **Gnd Con** 121.7
Radar Services:
Miami Dep Con 128.0[1] 119.7[2]
Remarks: [1]270°–089° [2]090–269°. [3]Opers 1200–0400Z.

OCALA (L) BVORTAC 112.8/OCF **FSS:** GAINESVILLE

ORLANDO

§HERNDON ***IFR*** 3 E **FSS:** ORLANDO on Fld
113 H60/7–25(3) (S–90, T–160, TT–300) BL4,6,8A,9 S5 F5, JP1 **RVV:** Rnwy 7
Remarks: NW–SE rnwy NW lndg 5178′ avbl, SE 5010′ avbl.
Tower 118.7 126.2 122.5R 112.2T 109.9T **Gnd Con** 121.7
Clrnc Del 121.7
Radar Services:
Orlando App Con 119.4 124.8 122.5R 109.9T
Orlando Dep Con 121.1
Tfc Info Ctc App Con on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 Vsby 1 mi Min Alt 613. Rnwys 25, 31 Ceil 400 Vsby 1 mi Min Alt 513.
ILS 109.9 I–ORL Apch Brg 067° **LOM:** 221/OR
(H) BVORTAC 112.2/ORL on fld.

PAHOKEE (L) BVORTAC 112.4/PHK **FSS:** WEST PALM BEACH

PANAMA CITY (L) BVOR 108.4/PFN **FSS:** TALLAHASSEE

§PENSACOLA MUNI ***IFR*** 3 NE **FSS:** PENSACOLA on Fld
118 H50/16–34(2) (S–100, T–180, TT–320) BL4,6,8A,9 S3 F4, JP1 U2 **RVV:** Rnwy 16
Remarks: Overnight tie-down fee.
Tower 119.9 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 123.9[1] 134.1 122.7R 119.0[2]
Dep Con 119.0[2] 134.1 123.9[1]
Tfc Info Ctc App Con on 119.0 when Eastbound or arriving fm the East 123.9 Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° **LOM:** 400/PN
RBn H–SAB 326●/PNS 343° 1.8NM to fld.
Remarks: [1]West [2]East

PERRINE RBn HW 266/PRR **FSS:** MIAMI

ST AUGUSTINE

§FAIRCHILD-ST AUGUSTINE 3N **FSS:** JACKSONVILLE
10 H65/13–31(3) (S–30) BL4,6 S5 F5
Remarks: Rnwy 2–20 and 6–24 clsd to acft over 12,500 lbs when twr not in opern.
Tower[1] 126.2 123.1 122.5R
Remarks: [1]Oper 1230–2115Z Mon–Fri.

ST. PETERSBURG

WHITTED 2E **FSS:** ST. PETERSBURG (DL)
7 H33(2) (S60, T105, TT 190) BL4 S3 F4 JP4 U2
Remarks: Rgt tfc rnwys 6, 36. Attended 0600–2200.
Tower 120.4 122.5R **Gnd Con** 121.8
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.4R 118.5 116.4T 116.0T 108.4T
Tampa Dep Con 126.5
Tfc Info: See Tampa Intl
Remarks: Opers 0600–2200.

§ST. PETERSBURG-CLEARWATER INTL ***IFR*** 8N **FSS:** ST PETERSBURG on Fld
10 H80/17–35 (3) (S–95, T–155, TT–200) BL4,6,8A,9 S5 F5, JP4 U2 **RVV:** Rnwy 17
Remarks: U.S. Customs lndg rgts arpt. Rnwy 4–22 clsd to ngt operns UFN.
Tower[2] 118.3 122.7R **Gnd Con** 121.9
Radar Services (BCN)
Tampa App Con 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T ***Tampa Dep Con*** 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° **LOM:** 240/PI
St Petersburg **(H) BVORTAC** 116.4/PIE at fld.
Remarks: [1]Glide slope unusable below 150′ MSL. [2]Opers 0600–2200 lcl time.

SANFORD NAS RBn SH 408/NRJ **FSS:** ORLANDO

§SARASOTA-BRADENTON ***IFR*** 3N **FSS:** ST. PETERSBURG (LC 955–6160)
24 H50/13–31(3) (S–62, T–110, TT–190) BL4,6 S5 F5, JP1 U2
Remarks: Rnwy 9–27 and all perimeter txwys clsd to acft in excess 12,500 lbs.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Tampa App Con 119.5 125.3 122.4R 118.5 116.4T 108.4T
Tampa Dep Con 126.5
Sarasota **(L) BVOR** 108.4/SRQ at fld.
Remarks: [1]Oper 0600–2400 lcl time.

SAUFLEY (L) BVOR 108.8/NUN
RBn MH 293/NUN

§TALLAHASSEE MUNI ***IFR*** 4 SW **FSS:** TALLAHASSEE on Fld
81 H61/18–36(2) (S–80, T–150, TT–270) BL4,6,8A,9 S5 F4, JP4 U2 **RVV:** Rnwy 36
Tower 118.7 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
App Con 120.8 122.5R 117.5T 110.3T
Dep Con 118.1
ILS[1] 110.3 I–TLH Apch Brg 358° **LOM:** 379/TL
(H) BVORTAC 117.5/TLH
RBn H–SAB 379●/TL 358° 4.1NM to fld.
VHF/DF ctc FSS.

FLORIDA—*Continued*

Tallahassee Muni—(Continued)
Remarks: [1]Glide slope unusable below 160′ MSL. LOM is H–SAB. **VOT:** 111.0.

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§TAMPA INTL ***IFR*** 3 W AOE FSS: ST. PETERSBURG (LC223–3431
27 H87(18R–36L)(3) (S–60, T–175, TT–270) BL4,6,8A,9,14 S5 F5, JP1, JP4, JP5 **RVR:** Rnwy 18L
Remarks: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 lbs GWT.
Tower 119.9 126.2 122.4R 110.3T **Gnd Con** 121.7
Radar Services (BCN)
App Con 119.5 125.3 122.4R 118.5 116.0T 116.4T 108.4T
Dep Con: 126.5
Tfc Info Ctc App Con within a 25 mi radius of MacDill AFB on 118.5.
ILS 110.3 I–TPA Apch Brg 181° **LOM:** 251/TP
RBn H–SAB 388●/AMP 001° 6.1NM to rnwy 36
VHF/DF: ctc FSS
Remarks: **VOT:** 111.0

TAYLOR (L) BVORTAC 113.8/TAY FSS: VALDOSTA

TYNDALL (L) VOR 117.7/PAM
RBn HW 227/AAN

VENICE RBn MHW 209/XVN FSS: ST. PETERSBURG
Remarks: VFR use only. Owned and operd by city.

VERO BEACH (H) BVORTAC 117.3/VRB FSS: VERO BEACH

WEST PALM BEACH
§PALM BEACH INTL ***IFR*** 3 W AOE **FSS:** MIAMI (LC 832–5697)
19 H80/9–27(2) (S–85, T–400) BL4,6,8A,9 S5 F5 JP4
RVV: Rnwy 9
Remarks: Rgt tfc rnwys 9 and 13. Lndg Fee for commercial acft.
Tower 119.1 122.7R **Gnd Con** 121.9
App Con 118.0 122.7R 115.5T 109.3T
ILS[1] 109.3 I–PBI Apch Brg 093° **LOM:** 356/PB
Palm Beach (H) BVORTAC 115.5/PBI 095° 2.8NM to fld.
Palm Beach RBn HW 356/PB 093° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 150′. LOM is HW. **VOT:** 109.0.

GEORGIA

ALBANY (L) BVOR 112.9/ABY FSS: ALBANY

ALMA (H) BVORTAC 115.1/AMG FSS: ALMA

ATHENS (L) BVORTAC 109.6/AHN FSS: ANDERSON

ATLANTA
§ATLANTA MUNI ***IFR*** 7SSW FSS: ATLANTA
1024 H100(9L–27R(4) (S–100, T–170, TT–340) BL5,6,8A,9,10,11 S5 F5, JP1 U2 **VASI:** Rnwy 27R, 27L **RVR:** Rnwy 9L, 9R[1], 33 **REIL:** Rnwy 27R.
Remarks: Aprxly 2100′ of W end rnwy 9R–27L not visible from twr. TV towers 1042′ (2049′ MSL) 8.5 NM NE. 1076′ (2049′ MSL) 7.5 NM NE. 1100′ (2049′ MSL) 10 nmi NE. Commercial Fee only. [1]Avail for apch and roll out.
Tower 119.1 119.5 122.7R **Gnd Con** 121.9
‡Clnrc Del 121.6
ATIS: 111.8 111.0
Radar Services: (BCN)
App Con 127.7 (N of V18) 118.1 (S of V18) 109.9T 109.3T 110.5T
Dep Con 125.7 125.0
Tfc Info Inbnd VFR acft ctc trml radar service 25NM out.
PAR [2]Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.
ASR Rnwys 3, 27L, 27R, 33 Ceil 400, Vsby 1 mi, Min Alt 1424. Rnwys 9L, 9R, 15 Ceil 500, Vsby 1 mi, Min Alt 1524.

GEORGIA—*Continued*

ILS 109.9 I–ATL Apch Brg 089° BC unusable **LOM:** 375/AT
109.3 I–AZA Apch Brg 329° BC unusable **LOM:** 344/AZ
110.5 I–ALR Apch Brg 089° **LOM:** 254/AL
(H) BVORTAC 115.6/ATL 016° 8.1NM to fld.
RBn H–SAB 266●/ATL 270° 4.7NM to rnwy 27R.
Remarks: [2]Radar monitoring of instrument apchs only at pilo's request. **VOT:** 111.0.

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§DEKALB-PEACHTREE ***IFR*** 8 NE FSS: ATLANTA
1002 H40/16–34(3) (Max 60) BL4,6,8, S5 F4, JP4 U2
Remarks: TV towers 1042 (2049′ MSL) 7.5NM SSW; 1076′ (2049′ MSL) 8NM SSW; 1100′ (2049′ MSL) 5NM SSW.
Peachtree Tower[1] 120.9 122.5R ~~121.6~~ **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
Remarks: [1]Oper 1200–0400Z.

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§FULTON COUNTY ***IFR*** 6W FSS: ATLANTA on Fld
839 H52/8–26(2) (S50, T–77) BL4, 11 S5 F5
REIL: Rnwy 8.
Remarks: Towers 1042′ (2049′ MSL) 9 NM E. 1076′ (2049′ MSL) 8NM E. 110′ (2049′ MSL) 9.5 NM E.
Tower[1] 118.5 120.7 122.6R 245T **Gnd Con** 121.7
Radar Services:
Atlanta App Con 120.5 123.8 **Atlanta Dep Con** 120.5 123.8
(L) BVOR 108.2/FTY on fld.
RBn MH 245/FTY on fld
VHF/DF Ctc FSS.
Remarks: [1]Oper 1200–0400Z.

AUGUSTA
§BUSH FIELD ***IFR*** 6S FSS: SAVANNAH (LC 798–5164
145 H80–17–35(2) (S–150, T–200, TT–360) BL4,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 35
Remarks: 1506′ (1882′ MSL) twr 7NM ENE and 1292′ (1677′ MSL) twr 7NM NE.
Augusta App Con 125.4 122.5R 110.5T
Gnd Con 121.9
ILS[1] 110.5 I–AGS Apch Brg 349° BC unusable **LOM:** 233/AG
Augusta (H) BVORTAC 113.9/AGS 141° 12.7NM to fld.
Augusta RBn HW 385/AGS 167° 4.9NM to rnwy 17.
VHF/DF Ctc twr.
Remarks: [1]Glide slope unusable below 245′ MSL.

BLAKELY RBn MHW 365/BLG

BRUNSWICK (L) BVOR 109.8/SSI FSS: BRUNSWICK

COLUMBUS
§MUSCOGEE COUNTY ***IFR*** 4NE FSS: ATLANTA
397 H50/5–23(2) (S–60, T–80) BL4,6 S5 F5, JP5 U2
Remarks: Rnwy 12–30 closed to ngt lndgs.
Tower 120.1 122.5R **Gnd Con** 121.9
Columbus App Con 125.3 122.5R 335T
Columbus Dep Con 125.3
ILS[1] 110.3 I–CSG Apch Brg 053° BC unusable **LOM:** 355/CS
Columbus (L) BVOR 117.1/CSG 148° 6.8NM to fld.
Remarks: [1]Glide slope unusable below 693′.

DOBBINS RBn HW 296/MGE

DUBLIN (L) BVOR 113.1/DBN FSS: MACON

GAY FARMS RBn MHW 329/GAY

GLYNCO RBn HW 275/NEA
HARRIS (L) BVOR 110.4/HRS FSS: KNOXVILLE, TEN

LA GRANGE (L) BVOR 109.4/LGC FSS: ANNISTON

LAWSON (L) VOR 111.4/LSF
RBn SH 335/AWS
Remarks: VOR inoperative UFN.

GEORGIA—*Continued*

LIBERTY RBn MHW 263/HIN

LOST MOUNTAIN RBn HW 314/LSM

§MACON MUNI *IFR* 9S **FSS:** MACON on Fld
354 H50/5–23(2) (S–30, T–50, TT–85) BL4,6,8A,9 S3
F5, JP1 U2 **RVV:** Rnwy 5
Remarks: Rnwy lgts oper dusk-2300; after on req thru FSS
Tower[2] 118.3 122.5R 109.5T **Gnd Con** 121.7
Radar Services: (BCN)
App Con 119.6 134.1 124.2 122.7R 114.2T 109.5T
Dep Con 124.8
ASR Rnwys 5, 13, 23 Ceil 500 Vsby 1 mi Min Alt 854.
ILS[1] 109.5 1–MCN Apch Brg 047° BC unusable **LOM:** 290/MC
(H) BVORTAC 114.2/MCN at fld.
VHF/DF Ctc FSS.
Remarks: [1]Glide slope unusable below 450′ MSL. [2]Opers 0700–2300 lcl time.

MOULTRIE (L) BVOR 108.8/MGR **FSS:** VALDOSTA

NORCROSS (L) BVORTAC 116.6/OCR **FSS:** ATLANTA

REX (L) VOR-DME 111.8/REG **FSS:** ATLANTA

ROME (L) BVOR 115.4/RMG **FSS:** ATLANTA
RBn MHW 388/RMG

SAVANNAH
§TRAVIS FIELD *IFR* 7NW **FSS:** SAVANNAH on Fld
50 H90/9–27(3) (S–40, T–60, TT–110) BL4,6,8A,9 S5 F4, JP5
RVR: Rnwy 9
Remarks: Rnwy 27 threshold displaced 400′. Rnwy 5–23 clsd all acft in excess 12,500 lbs GWT.
Savannah Tower 119.1 126.2 122.5R 110.1T
Gnd Con 121.9
Radar Services: (BCN)
Savannah App Con 125.3 126.2 122.7R 121.1 112.7T
Savannah Dep Con 125.7
ILS 109.9 I–SAV Apch Brg 092° **LOM:** 368/SA
Savannah (H) BVORTAC 112.7/SAV 246° 4.3NM to fld.
Remarks: **VOT:** 111.0

TIFTON RBn MHW 284/TMA **FSS:** ALBANY
Remarks: Owned and operd by Tifton Air Service.

TOCCOA (L) BVOR 109.8/TOC **FSS:** ANDERSON

VALDOSTA (L) BVOR 110.4/VLD **FSS:** VALDOSTA

VIENNA (L) BVORTAC 116.5/VNA **FSS:** MACON

WAYCROSS (L) BVORTAC 110.2/AYS **FSS:** ALMA

IDAHO

§BOISE AIR TERMINAL *IFR* 3S **FSS:** BOISE on Fld
2858 H90 (10R–28L)(2) (S100, T–185, TT–300) BL4,6,8A,9
S5 F5, JP1,4 U2 **RVV:** Rnwy 28R **RVR:** Rnwy 10L
Remarks: Rgt tfc rnwys 10R, 28R.
Tower 118.1 122.5R **Gnd Con** 121.7
App Con 118.9 113.3T
ILS 109.9 I–BOI Apch Brg 096° **LOM:** 278/BO
(H) BVORTAC 113.3/BOI on fld.
RBn SABH 359●/BOI 117° 2.1NM to fld.

BURLEY (L) BVORTAC 114.1/BYI **FSS:** BURLEY

COEUR D' ALENE RBn HW 347/COE **FSS:** SPOKANE

DUBOIS (H) BVORTAC 116.9/DBS **FSS:** IDAHO FALLS

§IDAHO FALLS
FANNING FIELD *IFR* 2NW **FSS:** IDAHO FALLS on Fld
4739 H74/2–20(2) (S–30, T–90, TT–150) BL5,6,11 S5 F4 JP5
REIL: Rnwy 20.
Remarks: Rnwy 20 threshold displaced 830′ NE. 6600′ avbl lndg rnwy 20. Rnwy 16 threshold displaced 545′ N. 4495′ avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.

IDAHO—*Continued*

Tower[1] 118.5 122.5R 278T **Gnd Con** 121.7
Idaho Falls (L) BVOR 108.2/IDA on fld.
Idaho Falls RBn H–SABZ 350●/IDA 199° 2.2NM to rnwy 20.
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

LEWISTON (L) BVOR 108.2/LWS **FSS:** WALLA WALLA

MALAD CITY (H) BVORTAC 117.4/MLD **FSS:** MALAD CITY

McCALL (H) BVORTAC 116.2/MYL **FSS:** BOISE

MULLAN PASS (H) BVORTAC 117.8/MLP **FSS:** MULLAN PASS

§POCATELLO MUNI *IFR* 7NW **FSS:** POCATELLO on Fld
4448 H82/3–21(3) (S70, T95, TT145) BL5,6,9,12 S5 F4 JP1
U2 **RVV:** Rnwy 21
Remarks: 1500′ sequence flashing lgts. Surface areas of rnwys 7–25 and 16–34 are not visible from twr. However, acft on rnwy surfaces are visible.
Tower 119.1 122.5R **Gnd Con** 121.9
ILS 110.3 I–PIH Apch Brg 208° **LOM:** 219/PI
(L) BVORTAC 114.4/PIH 033° 3.1NM to fld.

TWIN FALLS (L) BVOR 115.8/TWF **FSS:** BURLEY

ILLINOIS

§ALTON CIVIC MEML *IFR* 5E **FSS:** ST. LOUIS
541 H51(2) BL5 S5 F4 JP1 U2 (LC HO 5–4112)
Remarks: P-line NW. Hwy N
Tower[1] 121.1 122.5R ~~121.5~~ **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
St. Louis Dep Con 119.9
VFR ADV: Ctc St. Louis, Lambert-St. Louis
RBn MHW 263/ALN
Remarks: [1]Oper 0700–2300 [2]Southeast Arrivals [3]Northwest arrivals

BELLEVILLE RBn MHW 362/BL

BIBLE GROVE (L) BVOR 109.0/BIB **FSS:** VANDALIA

BLOOMINGTON (L) BVOR 108.2/BMI **FSS:** PEORIA

BRADFORD (H) BVORTAC 114.7/BDF **FSS:** PEORIA

CAHOKIA RBn MHW 375/CPS
Remarks: Non-federal facility.

CAPITAL (H) BVORTAC 112.7/CAP **FSS:** VANDALIA

CARBONDALE RBn BMH 248/MDH **FSS:** CAPE GIRARDEAU

CENTRALIA (H) BVORTAC 115.0/ENL **FSS:** VANDALIA

CHAMPAIGN
§UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4SSW **FSS:** CHAMPAIGN on Fld
753 H53/13–31(3) (S63, T90, TT170) BL4 S5 F4 U2 DT2
Champaign Tower 120.5 122.5R **Gnd Con** 121.9
Champaign App Con 119.8 122.5R 120.5 110.0T
VFR ADV: Ctc App Con on 119.8.
ILS 109.1 I–CMI Apch Brg 313° **LOM:** 407/CM
Champaign (L) BVORTAC 110.0/CMI on fld.

CHANUTE (L) VORW 117.2/RAN
RBn HWZ 281/RAN

CHICAGO (West Chicago)
§DUPAGE COUNTY *IFR* 3NW **FSS:** JOLIET (DL)
758 H40/10–28(3) (Max-15) BL4,9*,13 S5 F4 JP4 U2 DT2
Remarks: *Non-standard, 1000′ down cntr-line. Rnwy 5–23 clsd to all twin eng acft in winds below 15 kts.
Tower[1] 120.9 122.5R ~~121.5~~ **Gnd Con** 121.7
Remarks: [1]Oper 0600–2200 lcl time.

CHICAGO
§MERRILL C MEIGS FIELD 1E **FSS:** JOLIET (DL)
592 H39/18–36(1) (MAX 15) BL6,11 F4 JP1 U2 DT2
REIL: rnwy 36.
Remarks: U.S. Customs lndgs rights arpt. No student flying

ILLINOIS—*Continued*

Merrill C Meigs Field—(Continued)
permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1,500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear acft. (3) 25 knots or more to all acft. Fld clsd daily to all opers btn hrs 2400 and 0600 lcl time due no safety or svcs facs; no lgtg except obstn lgts dur this period. Rgt tfc N. Minor power plant repairs. Fee.
Meigs Tower[1] 121.3 122.5R ~~121.5~~ **Gnd Con** 121.9
Chicago Dep Con: 119.5
Remarks: [1]Oper 0600–2400.

§CHICAGO-MIDWAY *IFR* 9SW AOE **FSS:** JOLIET (DL)
619 H65/13R-31L(6) (S-130, T-200, TT-400) BL2,4,6,8A,9,11
S5 F5, JP1 U2 DT2 **RVR:** Rnwy 13R **REIL:** Rnwy 22L
Remarks: Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
Midway Tower[1] 118.7 119.2 126.2 122.7R 123.7 109.9T
Gnd Con 121.7
Radar Services:
Chicago App Con 119.5
Chicago Dep Con[1] 119.5
Tfc Info Ctc Chicago App Con on 119.5.
VFR ADV: Ctc twr on 119.2
PAR[2] Rnwy 13R Ceiling 300 Vsby 3/4 mi Min alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36 Ceil 500 Vsby 1 mi Min Alt 1119.
Rnwys 22L, 22R Ceil 600 Vsby 1 mi Min Alt 1219.
ILS 109.9[3] I-MDW Apch Brg 132° BC unusable **LOM:** 219/MD
109.5[4] I-MXT Apch Brg 312° BC unusable **LOM:** 248/MX
Chicago RBn H-SAB 350●/MDW 152° 2.2 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Midway twr provides radar coverage to departure acft in the immediate area of Midway on 119.2 [2]PAR unusable from MM to touchdown. Radar Monitoring of instrument apchs only at pilot's request. [3]Front crs rnwy 13R usable lmtd to 60° arc either side crs to 25 mi 7000′ MSL. [4]Glide slope rnwy 31L not comsnd. LOM is Kedzie MHW. **VOT:** 111.0.

§CHICAGO-O'HARE INTL *IFR* 14NW **FSS:** JOLIET (DL)
667 H116/14R-32L(5) (S-120, T-200, TT-375) BL5,6,8A,9,10,11
S5 F5 JP1, JP4 U2 **RVR:** 14R, 14L, 27, 32L
RVV: Rnwys 4, 9, 27, 32R **VASI:** Rnwy 22.
Remarks: U.S. Customs lndg rgts arpt. Motel sign 1 3/4 mi from apch end of rnwy 32L maybe mistaken for apch lgts First 1000′ rnwy 14L clsd.
O'Hare Tower 118.1 126.2 122.6R 120.7 113.9T 110.1T 109.7T
‡Clrnc Del 121.6 **Gnd Con** 121.9
ATIS: 124.2, 113.9
Radar Services: (BCN)
Chicago App Con 125.7[1] 126.2 124.7 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
Chicago Dep Con 125.4[1] 125.0[2]
Tfc Info All inbnd acft ctc Chicago App Con on 119.0 from the E, 125.7 from the W.
VFR ADV: 127.4
PAR Rnwys 14R, 27, 32L Ceil 200 Vsby 1/2 mi Min Alt 867.
Rnwys 4, 14L, 22, 32R Ceil 300 Vsby 3/4 mi Min Alt 967.
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceil 400 Vsby 1 mi Min Alt 1067
Rnwy 4 Ceil 600 Vsby 2 mi Min Alt 1267.
ILS 109.7 I-ORD Apch Brg 138° (14R) **LOM:** 394/OR
110.1 I-OHA Apch Brg 138° **LOM:** 368/OH
110.5 I-IAC Apch Brg 268° BC unusable **LOM:** 414/IA
109.1 I-RVG Apch Brg 318° **LOM:** 257/RV
108.7[3] I-IDN Apch Brg 318X **LOM:** 385/ID
111.3 I-HNA Apch Brg 038°
(L) VORTAC 113.9/ORD on fld.
VHF/DF Ctc twr.
Remarks: [1]180°-359° [2]360°-179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til radar advises passing 3 mi radar fix from end of rnwy. Glide slope rnwy 14L unusable below 900′. [3]To be comsnd Jan 1967. **VOT:** 112.0.

CHICAGO HEIGHTS (L) BVORTAC 114.2/CGT **FSS:** JOLIET

CORDOVA (L) BVOR 111.2/CVA **FSS:** MOLINE

DANVILLE (L) BVOR-DME 111.0/DNV **FSS:** LAFAYETTE

DECATUR MUNI *IFR* 4E **FSS:** VANDALIA (DL)
679 H53(3) BL4, 11 S5 F4 TPI U-2 **REIL:** Rnwys 18, 36
Remarks: 1063 (1179 MSL) twr 7.5 nmi NNE.
Tower: 118.9 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 118.9
(L)BVOR 110.6/DEC 348° 5.4 NM to rnwy 36
Remarks: Opers 0700-2300 lcl time.

DU PAGE (T) BVOR 108.4/DPA **FSS:** JOLIET

FT. SHERIDAN RBn MH 326/FSN

GALESBURG (T) BVOR 109.8/GBG **FSS:** BURLINGTON

GLENVIEW RBn MH 269/NBU

HARRISBURG-RALEIGH RBn MHW 230/HSB **FSS:** CAPE GIRARDEAU
Remarks: Pvt Fac.

JOLIET (H) BVORTAC 112.3/JOT **FSS:** JOLIET

KANKAKEE RBn MHW 272/IKK

KEDZIE RBn MHW 248/MX **FSS:** JOLIET

MARION (L) BVOR 110.4/MWA **FSS:** CAPE GIRARDEAU

MATTOON (T) BVOR 109.4/MTO **FSS:** VANDALIA
RBn HW 347/MTO

MOLINE
§QUAD CITY *IFR* 3S **FSS:** BURLINGTON (DL)
590 H55/9-27(3) (S-56, T-82, TT-140) BL4,6,8A,9 S5 F4, JP4 U2 DT2 **RVR:** Rnwy 9
Tower 118.5 122.5R 110.3T **Gnd Con** 121.9
Moline App Con 114.4T 111.2T 110.3T 121.7[1] 224T
ILS 110.3 I-MLI Apch Brg 087° **LOM:** 215/ML
Moline (L) BVORTAC 114.4/MLI 032° 9.3NM to fld.
Remarks: [1]For IFR acft operg Davenport Mun Arpt Iowa

MOUNT VERNON RBN MHW 414/MVN **FSS:** ST. LOUIS (DL)
Remarks: Owned and operd by Mt. Vernon Airport Authority.

NAPERVILLE (L) BVOR 116.0/API **FSS:** JOLIET

NORTHBROOK (H) BVORTAC 113.0/OBK **FSS:** JOLIET

OLNEY RBn MHW 272/OLY
Remarks: Owned and operd by arpt authority.

PALESTINE RBn MHW 391/PLX **FSS:** TERRE HAUTE
Remarks: Unmonitored 0100-1300Z, not to be used for IFR apchs when unmonitored.

PEORIA
§GREATER PEORIA *IFR* 4W **FSS:** JOLIET
659 H70/12-30(4) (S-65, T-90, TT-170) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVR:** Rnwy 30
Remarks: Rnwy 18 clsd air carrier ngt lndgs. 5′ unlgtd fence apch end rnwy 22.
Peoria Tower 119.1 125.8 122.5R **Gnd Con** 121.9
Peoria App Con 125.8 122.5R 115.2T 109.9T
VFR ADV Ctc App Con on 125.8
ILS 109.9 I-PIA Apch Brg 303° **LOM:** 356/PI
Peoria (L) BVORTAC 115.2/PIA 095° 4.0NM to fld.
Peoria RBn MHW 356/PI 303° 5.3NM to fld.
Remarks: LOM is MHW.

ILLINOIS—*Continued*

PEOTONE (L) BVORTAC 113.2/EON **FSS:** JOLIET

POLO (L) BVORTAC 117.1/PLL **FSS:** ROCKFORD

PONTIAC (L) BVOR 109.6/PNT **FSS:** PEORIA

§QUINCY MUNI-BALDWIN FLD ***IFR*** 9E **FSS:** QUINCY on Fld
769 H54/3–21(3) (S65, T–90, TT–170) BL4,6 S5 F4 JP1 DT2
ILS 110.1 I–UIN Apch Brg 035° **LOM:** 293/UI
Quincy (L) BVORTAC 113.1/UIN 029° 6.4NM to fld.
Quincy RBn MHW 293/UI 035° 3.9NM to rnwy 3.
Remarks: LOM is MHW.

ROBERTS (L) BVORTAC 116.8/RBS **FSS:** CHAMPAIGN

ROCKFORD
§GREATER ROCKFORD ***IFR*** 4S **FSS:** ROCKFORD on Fld
735 H60/18–36(3) (S–150, T–200, TT–400) BL4,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 36 **RVR:** Rnwy 36
Rockford Tower 118.3 122.5R 109.3T 362T **Gnd Con** 121.9
VFR ADV Ctc App Con on 124.9
Rockford App Con 124.9 118.3 122.5R
ILS 109.3 I–RFD Apch Brg 002° **LOM:** 275/RF
Rockford (L) BVORTAC 110.8/RFD 114° 6.0NM to fld.

SCOTT (L) VOR 112.2/BLV

SAMSVILLE (L) BVOR 116.6/SAM **FSS:** EVANSVILLE

SPRINGFIELD
§CAPITAL ***IFR*** 3NW **FSS:** VANDALIA (DL)
593 H70/4–22(3) (S–85, T–120, TT–210) BL4,6,8A,9,11 S5 F4, JP4, U2 DT2 **RVR:** Rnwy 4 **REIL:** Rnwy 22.
Tower 121.3 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 118.6 aprx 25NM out
Springfield App Con 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I–SPI Apch Brg 038° **LOM:** 379/SP
Springfield RBn MHW 379/SP 038° 5.1 NM to rnwy 4
Remarks: LOM is MHW.

TROY (L) BVORTAC 116.0/TOY **FSS:** ST. LOUIS

VANDALIA (L) BVORTAC 114.3/VLA **FSS:** VANDAILA

WAUKEGAN RBn MHW 379/UGN

INDIANA

ANDERSON RBn MHW 371/AID **FSS:** INDIANAPOLIS

BAKALAR RBn HW 410/BAK

BLOOMINGTON (L) BVOR 110.2/BMG **FSS:** INDIANAPOLIS

BUNKER HILL (L) VOR 112.5/BHL
RBn MHW 365/BHL

COLUMBUS RBn MHW 375/CLU **FSS:** INDIANAPOLIS

CONNERSVILLE RBn MHW 275/CEV
Remarks: Owned and operd by city.

EVANSVILLE
§DRESS MEMORIAL ***IFR*** 3N **FSS:** TERRE HAUTE (DL)
389 H60/3–21(3) (S–70, T–90, TT–) BL4.6 S5 F5 TPI U2 DT2
Remarks: Acft not vis from ctl twr on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or below. Rnwy 3 threshold displaced 1200′ NE, lndg length 6827′.
Evansville Tower 118.7 122.5R **Gnd Con** 121.9
Evansville App Con 119.4 122.5R 118.7 113.3T 109.9T
VFR ADV: Ctc App Con on 119.4
ILS 109.9 I–EVV Apch Brg 215° BC unusable **LOM:** 219/EV
Evansville (H) VORTAC 113.3/EVV 12.4NM to fld.

FT. WAYNE
§BAER FIELD ***IFR*** 6SSW **FSS:** FORT WAYNE on Fld.
801 H80/4–22(3) (S–90, T–120, TT–) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVR:** Rnwy 31 **REIL:** Rnwy 22
Remarks: P-line crossing apch lgts SE apch 2400′ off end rnwy 31. Ctl twr unable to see acft on final apch for rnwy 9 when within 1500′ of apch end below 100′ AGL or ctl tfc on first 500′ rnwy 9.
Fort Wayne Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Fort Wayne App Con 125.5 127.2 126.2 122.5R 117.8T 109.9T **Fort Wayne Dep Con** 118.6
Tfc Info Inbnd VHF equipped acft ct App Con on 125.5 at least 15NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceil 400, Vsby 1 mi, Min Alt 1201. Rnwys 22 Ceil 500, Vsby 1 mi, Min Alt 1301.
ILS[1] 109.9 I–FWA Apch Brg 315° **LOM:** 251/FW
Fort Wayne (H) BVORTAC 117.8/FWA on fld.
Fort Wayne RBn MHW 251/FW 315° 3.9NM to rnwy 31
Remarks: Do not descend below 1500′ MSL til radar advised passing fix 3 miles from end of rnwy 22 due to 1155′ MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL. **VOT:** 111.0. LOM is MHW.

GOSHEN (L) BVORTAC 116.6/GSH **FSS:** SOUTH BEND

HUNTINGBURG RBn MHW 239/HNB

§INDIANAPOLIS MUNI (Weir Cook) ***IFR*** 7SW
FSS: INDIANAPOLIS on Fld
797 H100/4–22(2) (S–100, T–150, TT–270) BL6,8A,9,10,11 S5 F4, JP1,4 U2 **VASI:** Rnwy 22 **RVR:** Rnwy 4, 31
Remarks: U.S. Customs lndg rgts arpt. Fee multi-eng commercial acft.
Tower 120.9 126.2 122.5R 116.3T
‡Clrnc Del 125.7 **Gnd Con** 121.9
ATIS 110.5
Radar Services: (BCN)
App Con 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.5 or 118.1
PAR[3] Rnwy 4 Ceil 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceil 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I–IND[3] Apch Brg 044° **LOM** 266/IN
110.5 I–COA Apch Brg 313° **LOM:** 232/CO
(H) BVORTAC 116.3/IND 142° 6.1NM to fld.
RBn H–SAB 266●/IN 044° 6.8NM to rnwy 4
VHF/DF Ctc FSS.
Remarks: [1]220–044° [2]045–219° [3]Radar monitoring of instrument apcrs only at pilot's request. LOM is H–SAB. **VOT:** 109.0

KNOX (L) BVOR 108.8/OXI **FSS:** SOUTH BEND

KOKOMO (L) BVOR 109.8/OKK **FSS:** INDIANAPOLIS
RBn MHW 227/OKK

LAFAYETTE
§PURDUE UNIVERSITY ***IFR*** 1SW **FSS:** LAFAYETTE on fld
605 H54/10–28(2) (S35 T53 TT80) BL5 S3 F5 JP1
Remarks: Fee for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.
ILS 110.3 I–LAF Apch Brg 098° **LOM:** 401/LA
Lafayette (H) BVORTAC 115.6/LAF 143° 10.6NM to fld.

LEWIS (H) BVORTAC 115.3/LEU **FSS:** TERRE HAUTE

MARION (T) BVOR 108.6/MZZ **FSS:** INDIANAPOLIS

MONTEREY (L) BVOR 111.4/MOI **FSS:** FORT WAYNE

MUNCIE
§DELAWARE COUNTY (Johnson Fld) ***IFR*** 3N
FSS: INDIANAPOLIS (DL)
937 H51/14–32(2) (S–70, T–90, TT–150) BL4 S5 F4 JP1 U2
Remarks: P-line in NW apch 3480′ off end rnwy 14.
Muncie Tower[1] 120.1 122.5R **Gnd Con** 121.9
Muncie (L) BVOR 113.7/MIE
Remarks: [1]Oper 1200–0400Z.

INDIANA—*Continued*

NABB (L) BVOR 113.5/ABB **FSS:** LOUISVILLE

RICHMOND (L) BVOR 110.6/RID **FSS:** DAYTON
RBn MHW 385/RID

SCOTLAND (L) BVORTAC 111.2/SCJ **FSS:** TERRE HAUTE

SHELBYVILLE (L) BVOR 112.0/SHB **FSS:** INDIANAPOLIS

SOUTH BEND
§ST. JOSEPH COUNTY *IFR* 3NW **FSS:** SOUTH BEND on Fld
785 H60/9-27(4) (S-110, T-145, TT-) BL4,6,8A,9 S4
F5, JP1 U2 **RVR:** Rnwy 27
Remarks: P-lines NE, S. 1048′ (1918′ MSL) TV twr 7.5 NM SE.
South Bend Tower 118.9 122.5R 115.4T 109.3T
Gnd Con 121.9
South Bend App Con 121.0 122.5R 115.4T 109.3T
VFR ADV: Ctc App Con on 121.0
ILS 109.3 I-SBN Apch Brg 269° **LOM:** 341/SB
South Bend (L) BVORTAC 115.4/SBN 180° 3.5NM to fld.
VHF/DF Ctc FSS.

TERRE HAUTE
§HULMAN FIELD *IFR* 5E **FSS:** TERRE HAUTE on Fld
585 H90/5-23(3) (S-100, T-150, TT-270) BL4,6 S3 F4, JP1 U2
Remarks: 1254′ overrun NE end rnwy 5. Rnwy 18-36 clsd to acft over 25,000 lbs.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 123.8 122.5R 118.3
VFR ADV Ctc App Con on 123.8
ILS 109.7 I-HUF Apch Brg 045° **LOM:** 245/HU
Terre Haute (L) BVORTAC 111.8/HUF 229° 3.0NM to fld.
Terre Haute RBn MHW 245/HU 045° 4.7 NM to rnwy 5.
VHF/DF Ctc FSS.
Remarks: LOM is MHW.

WESTPOINT (L) BVOR 109.2/EPT **FSS:** LAFAYETTE

WOLF LAKE (L) BVOR 110.4/OLK **FSS:** FT. WAYNE

IOWA

AMES RBn MHW 275/AMW **FSS:** DES MOINES
Remarks: Operd by city.

ATLANTIC RBn MHW 365/AIO **FSS:** OMAHA
Remarks: VFR use only. Owned and operd by city.

BURLINGTON (L) BVORTAC 111.4/BRL **FSS:** BURLINGTON

§CEDAR RAPIDS MUNI *IFR* 5SSW **FSS:** CEDAR RAPIDS on Fld
863 H70/8-26(2) (S-45, T-90, TT-375) BL4,6,8A,9,11 S-5
F4, TP-1 -JP1 U2 **REIL:** Rnwy 26 **RVR:** Rnwy 8
Remarks: Eastern N/S txwy 1500x75′ and sod areas avbl as rnwy during strong N/S winds. Arpt attended on request after 0630Z.
Tower 118.7 122.5R 117.6T 109.3T **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.9
App Con 1-19.9 122.5R 118.7 117. 6T 109.3T
ILS[1] 109.3 I-CID Apch Brg 085° BC unusable **LOM:** 326/CI
(L) BVORTAC 117.6/CID 088° 2.8NM to fld
Remarks: [1]Glide slope unusable below 1047′ MSL.

CHARLES CITY RBn MHW 375/CCY **FSS:** MASON CITY
Remarks: Owned and operd by city.

DAVENPORT RBn BH 224/DVN **FSS:** BURLINGTON

§DES MOINES MUNI *IFR* 3SW **FSS:** DES MOINES on Fld
957 H90/12-30(3) (S-100, T-180, TT-350) BL4,6,8A,9,11 S-5
F5, JP4 U2 DT **RVR:** Rnwy 30 **RVV:** Rnwy 12 **REIL:** Rnwy 23
Remarks: Rnwy 17-35 clsd to acft over 25,000 lbs.
DT Memorial Day—Labor Day.

IOWA—*Continued*

Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.9 122.5R 119.3 114.1T 110.3T
Dep Con 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi
Min Alt 1357
Tfc Info Ctc App Con on 124.9 or 119.3 15NM out.
ILS 110.3 I-DSM Apch Brg 305° **LOM:** 219/DS
(H) BVORTAC 114.1/DSM 349° 5.4NM to fld.

DUBUQUE (L) BVOR 109.4/DBQ **FSS:** CEDAR RAPIDS

ESTHERVILLE (L) BVOR 110.4/EST
Remarks: Owned and operd by city.

FORT DODGE (H) BVORTAC 113.5/FOD **FSS:** MASON CITY

IOWA CITY (L) BVORTAC 111.0/IOW **FSS:** CEDAR RAPIDS

JEFFERSON RBn MHW 391/EFW **FSS:** DES MOINES
Remarks: Owned and operd by Arpt Commission.

KEOKUK RBn MHW 366/EOK **FSS:** BURLINGTON

LAMONI (H) BVORTAC 116.7/LMN **FSS:** DES MOINES

MASON CITY (H) BVORTAC 114.9/MCW **FSS:** MASON CITY

NEOLA (L) BVORTAC 117.1/EOL **FSS:** OMAHA

NEWTON (L) BVOR 112.5/TNU **FSS:** DES MOINES

OTTUMWA (L) BVORTAC 111.6/OTM **FSS:** OTTUMWA

SHENANDOAH RBn MHW 411/SDA
Remarks: Owned and operd by city.

§SIOUX CITY MUNI *IFR* 6S **FSS:** SIOUX CITY
1097 H90/13-31(3) (Max 2.25) BL4,6,8A,9,11 S-5
F4, JP-1 U2 **RVR:** Rnwy 31 **REIL:** Rnwy 13
Remarks: First 1500′ rnwy 22 not visible to tower.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 124.6 122.5R 116.5T 109.3T
VFR ADV Ctc App Con on 124.6
ILS 109.3 I-SUX Apch Brg 307° **LOM:** 414/SU
(L) BVORTAC 116.5/SUX 312° 3.6NM to fld.
RBn MHW 414/SU 307° 5.3NM to fld.
VHF/DF Ctc twr
Remarks: LOM is MHW.

SPENCER RBn MHW 257/SPW

STORM LAKE RBn MHW 227/SLB
Remarks: Owned and operd by Arpt Comm.

§WATERLOO MUNI *IFR* 4NW **FSS:** WATERLOO on Fld
870 H65/12-30(3) (S-100, T-180, TT-305) BL4,8A,9 S-5
F4, JP1 U2 **RVV:** Rnwy 12
Tower 118.1 122.5R **Gnd Con** 121.9
App Con 125.8 122.5R 109.9T 108.2T
VFR ADV Ctc App Con on 125.8
ILS[1] 109.9 I-ALO Apch Brg 122° **LOM:** 382/AL
(L) BVORTAC 108.2/ALO at fld.
Remarks: [1]Front crs unusable beyond 20 NM.

WAUKON (L) BVOR 109.6/UKN **FSS:** LACROSSE

WEBSTER CITY RBn MHW 215/EBS

KANSAS

ANTHONY (L) BVOR 112.9/ANY **FSS:** WICHITA

CHANUTE (L) BVOR 109.2/CNU **FSS:** CHANUTE

DODGE CITY (L) BVORTAC 108.2/DDC **FSS:** DODGE CITY

EMPORIA (L) BVORTAC 112.8/EMP **FSS:** EMPORIA

FORT RILEY (L) VORW 109.4/FRI **FSS:** SALINA
RBn MHW 317/FRI

KANSAS—*Continued*

GARDEN CITY (H) BVORTAC 113.3/GCK **FSS:** GARDEN CITY
RBn H–SAB 257●/GCK

GOODLAND (L) BVORTAC 115.1/GLD **FSS:** GOODLAND

GREAT BEND RBn MHW 308/GRB **FSS:** RUSSELL

HILL CITY (H) BVORTAC 113.7/HLC **FSS:** HILL CITY

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§HUTCHINSON MUNI *IFR* 3E **FSS:** WICHITA (DL)
1542 H70/13–31(3) (S–50, T–65, TT–103) BL4,6,8A,9 S5 F4 JP1 U2
Remarks: 1503′ (3049′ MSL) twr 5NM E. Rnwy 31 threshold displaced 800′ NW, rnwy 35 displaced 800′N, rnwy 3 displaced 400′ NE.
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 125.5 122.5R 118.5 116.8T
VFR ADV Ctc App Con on 125.5
ILS 110.1 I-HUT Apch Brg 129° **LOM:** 404/HU
(L) BVORTAC 116.8/HUT 033° 5.0NM to rnwy 3

INDEPENDENCE RBn MHW 400/IDP **FSS:** CHANUTE

KANSAS CITY
§FAIRFAX MUNI *IFR* 3NE **FSS:** KANSAS CITY
746 H61/17–35(4) (S–30, T–50, TT–85) BL6 S5 F–5, JP–1 U2
Remarks: Tfc ptn alt for acft under 12,500 lbs GWT is 600′ AGL, vsby N and NW greatly reduced. 1042′ (2049′ MSL) twr 5NM S. and 1023′ (1946′ MSL) twr 6NM SE. Displaced threshold on all rnwys. Rnwy 17–35 only rnwy avbl ngts.
Tower[3] 119.1 126.2 122.5R ~~121.6~~ **Gnd Con** 121.7
Radar Services:
Kansas City App Con 126.2 122.′7R 121.1[1] 118.9[2] 112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
Remarks: [1]W Sector [2]E Sector [3]Opers 0600–2200 daily, during hrs twr not in 2200–0600 tfc advisories will be furnished by Kansas City twr on 119.1.

LIBERAL (H) BVORTAC 112.3/LBL **FSS:** GARDEN CITY

McCONNELL (L)VORW 117.3/IAB

MANHATTAN (T) BVOR 110.2/MHK **FSS:** SALINA
RBn HW 391/MHK

MANKATO (L) BVOR 109.8/TKO **FSS:** SALINA
Remarks: Class to be BVORTAC Jan 6, 1967.

OSWEGO (L) BVOR 117.6/OSW **FSS:** JOPLIN

OTTAWA (L) VORW 111.6/TOE

PRATT RBn HW 356/PTT **FSS:** DODGE CITY

RUSSELL (L) BVOR 114.5/RSL **FSS:** RUSSELL

SALINA MUNI 3 SW **FSS:** SALINA
1271 H133/17–35(2) (S–100, T–185, TT–350) BL6,*8A,9 S5 F4 JP1 U2
Tower[1] 119.3 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R
ILS 110.5 I–SLN Apch Brg: 351° **LOM:** 344/SL
(H)BVORTAC 115.3/SLN 183° 4.2NM to fld.
Remarks: [1]Oper 0600–2200 lcl time. *Non-Standard.

TOPEKA
§PHILIP BILLARD MUNI *IFR* 3NE **FSS:** TOPEKA on Fld
880 H51/13–31(3) (S–70, T–100, TT–175) BL4,6,8A,9 S5 F5 JP1 U2
Topeka Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Olathe App Con 120.5 122.5R
Olathe Dep Con 120.5 122.5R
ILS[1] 109.5 I–TOP Apch Brg 125° **LOM:** 304/TOP
Topeka (L) BVORTAC 117.8/TOP 211° 4.9NM to fld.
Topeka RBn MHW 304/TOP 126° 3.9NM to rnwy 13.
Remarks: [1]Glide slope unusable below 1078′ MSL. LOM is MHW.

KANSAS—*Continued*

WICHITA
§BEECH *IFR* 5E **FSS:** WICHITA (DL)
1387 H50/18–36(3) F4
Remarks: P-lines N, S.
Tower[1] 119.9 126.2 122.5R **Gnd Con** 121.7
Radar Services:
Wichita App Con 125.7 120.1 134.1 122.7R
Wichita Dep Con 125.7
Remarks: [1]Oper 1400–2300Z Mon-Fri., Sat. 1300–1730Z. Clsd Sun and holidays.

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§WICHITA MUNI *IFR* 5SW **FSS:** WICHITA on Fld
1332 H73/1–19(2) (S–100, T–188, TT–350) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 01 **RVR:** Rnwy 1
Remarks: Acft carrying hazardous or explosive cargo prohibited. 1079′ (2444′ MSL and 1064 (2431′ MSL) twr 9NM NNW.
Tower 119.5 122.5R[2] **Gnd Con** 121.9
ATIS[1] 110.3
Radar Services: (BCN)
Wichita App Con 120.1 120.6 134.1 125.7 122.7R 113.8T
Wichita Dep Con 124.5 113.8T
Tfc Info Ctc App Con on 120.1
ASR Rnwys 1, 32 Ceil 400 Vsby 1 mi Min Alt 1732.
Rnwy 14 Ceil 500 Vsby 1 mi Min Alt 1832.
Rnwy 19 Ceil 600 Vsby 1 mi Min Alt 1932.
ILS 110.3 I–ICT Apch Brg 011° **LOM:** 332/IC
(H) BVORTAC 113.8/ICT 162° 4.3 NM to rnwy 14.
RBn H–SAB 332●/IC 011° 4.1 NM to rnwy 1
Remarks: [1]Oper 0700–2100 lcl time. [2]To be decomsnd Jan 5, 1967. LOM is H–SAB.

KENTUCKY

ASHLAND RBn MHW 385/AKY **FSS:** HUNTINGTON
Remarks: Inoperative.

BOWLING GREEN (L) BVORTAC 117.9/BWG **FSS:** BOWLING GREEN

CAMPBELL (T) VOR[1] 111.0/HOP
RBn HW 293/HOP
Remarks: [1]Inoperative.

CAMPBELLSVILLE RBn MHW 354/CTC **FSS:** LOUISVILLE

CENTRAL CITY (L) BVOR 109.8/CCT **FSS:** BOWLING GREEN

FALMOUTH (L) BVOR 109.0/FLM **FSS:** CINCINNATI

FORT KNOX (T) VOR 109.6/FTK
RBn MH 396/FTK

LEXINGTON
§BLUE GRASS FIELD *IFR* 5W **FSS:** LEXINGTON on Fld
978 H55/4–22(3) (S–95, T–128, TT–284) BL4,6,8A,9 S5 F5, JP–5 U2 **RVR:** Rnwy 4
Remarks: Twr unable to see last ½ mi final apch rnwy 26.
Lexington Tower 121.1 122.5R 117.0 110.1T
Gnd Con 121.9
Lexington App Con 119.1 122.5R 117.0 110.1T
ILS 110.1 I–LEX Apch Brg 042° **LOM:** 242/LE
Lexington (H) BVORTAC 117.0/LEX 304° 7.3 NM to fld
Lexington RBn MHW 242/LE 042° 3.5 NM to fld.
Remarks: LOM is MHW.

LONDON (L) BVORTAC 116.1/LOZ **FSS:** LONDON

LOUISVILLE
§BOWMAN FIELD *IFR* 5SE **FSS:** LOUISVILLE on Fld
549 H43/6–24(3) (Max 30) BL4,11 S–5 F–4, JP–4 U2
REIL: Rnwy 24
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Standiford App Con 124.5 126.2 120.5 120.3
Standiford Dep Con 119.0

KENTUCKY—*Continued*

§STANDIFORD FIELD *IFR* 4S **FSS:** LOUISVILLE (DL)
497 H78/1-19(3) (S-60, T-90, TT-200) BL4,6,8A,9,14,15
S-4 F5, JP1, JP5 **RVV:** Rnwy 29 **RVR:** Rnwy 1
Remarks: FEE.
Tower 120.3 126.2 122.7R **Gnd Con** 121.7
Radar Services:
App Con 124.5 126.2 120.5 120.3 **Dep Con** 119.0
ASR Rnwys 24, 29 Ceil 500 Vsby 1 mi Min Alt 997.
Rnwys 1, 16, 11, 19 Ceil 600 Vsby 1 mi Min Alt 1097.
ILS 110.3 I-SDF Apch Brg 010° [1]**LOM:** 359/SD
109.1 I-LKS Apch Brg 290° **LOM:** 414/LK
Louisville (H) BVORTAC 114.8/LOU 300° 8.4NM to fld.
Standiford RBn BH 359/SD 010° 4.8NM to fld.
VHF/DF Ctc twr.
Remarks: On apch to rnwy 19 maintain at least 1400′ MSL within 3 mi of rnwy. [1]LOM is BH. **VOT:** 111.0

MYSTIC (L) BVOR 108.2/MYS **FSS:** LOUISVILLE

NEWCOMBE (L) BVOR 110.4/ECB **FSS:** HUNTINGTON

NEW HOPE (L) BVORTAC 110.8/EWO **FSS:** LOUISVILLE

OWENSBORO (T) BVOR 108.6/OWB **FSS:** EVANSVILLE
RBn MHW 275/OWB

PADUCAH (L) BVORTAC 113.6/PUK **FSS:** PADUCAH
RBn BMH 356/PUK

YORK (L) VORW 113.4/YRK **FSS:** HUNTINGTON

WHITESBURG (L) BVORTAC 111.8/BRG **FSS:** LONDON

LOUISIANA

ALEXANDRIA (H)BVORTAC 116.1/AEX **FSS:** ALEXANDRIA
RBn HW 251/AEX

BARKSDALE (L) VOR 111.2/BAD
RBn HW 379/BAD

BATON ROUGE
§RYAN *IFR* 4 N **FSS:** BATON ROUGE on Fld
70 H60/4-22 (3) (S-137, T-175, TT-340) BL4, 6, 11 S5
F4, JP5 U2 **REIL:** Rnwy 13
Remarks: Rnwy 22 threshold lgts displaced 260′ SW 5740′ avbl rnwy 22, 6000′ avbl rnwy 4. Ctc App Con 120.3 prior entering control zone. 1729′ (1749′ MSL) twr 10.5 NM SSW
Tower 118.3 122.5R **Gnd Con** 121.9
Baton Rouge App Con 120.3 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127° **LOM:** 284/BT
Baton Rouge (L) BVORTAC 116.5/BTR 065° 7.6NM to fld.

ESLER (L) BVOR 108.8/ESF **FSS:** ALEXANDRIA

GRAND ISLE (H) BVORTAC 113.5/GNI **FSS:** NEW ORLEANS
RBn HH-SAB 236●/GNI

HARVEY (L) BVORTAC 112.4/HRV **FSS:** NEW ORLEANS

§LAFAYETTE MUNI *IFR* 2 SE **FSS:** LAFAYETTE on Fld
42 H51/1-19(2) (S-29, T-47, TT-78) BL4, 8A, 9, 11 S5
F5, JP5 U2 **RVV:** Rnwy 19 **REIL:** Rnwy 1
Tower 118.5 122.5R **Gnd Con** 121.7
Clrnc Del 121.7
App Con 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193° **LOM:** 257/LF
(L)BVORTAC 110.8/LFT 344° 3.0 NM to fld.
RBn BMH 375/LFT at fld.

§LAKE CHARLES MUNI *IFR* 3 S **FSS:** LAKE CHARLES on Fld
16 H65/15-33(2) (S-137, T-165, TT-350) BL4,5,6,8A, 9 S5
F4, JP4 **RVV:** Rnwy 15
Remarks: Rgt tfc rnwys 15 and 22.
Tower 120.7 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 113.4T 109.1T

LOUISIANA—*Continued*

ILS 109.1 I-LCH Apch Brg 148° **LOM:** 353/LC
(H)BVORTAC 113.4/LCH 252° 6.3 NM to fld.
RBn BH 242/LCH 347° 2.1 NM to fld.

§MONROE *IFR* 3 E **FSS:** MONROE on Fld
79 H50/4-22(3) (S-50, T-75, TT-135) BL4,6,8,9 S5
F4, JP4 U2
Remarks: Apch to runwys 17-35 and 13 do not meet FAA safety criteria for air carrier ngt. lndgs.
Tower 119.1 122.5R **Gnd Con** 121.9
App Con 119.1 122.5R
ILS[1] 109.5 I-MLU Apch Brg 039° **LOM:** 219/ML
(L) BVORTAC 113.7/MLU 036° 4.2 NM to rnwy 4.
VHF/DF: Ctc FSS
Remarks: [1]Glide slope unusable below 320′ MSL.

NEW ORLEANS
§NEW ORLEANS-LAKEFRONT *IFR* 4 NE **FSS:** NEW ORLEANS on Fld
10 H57/17-35(4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2
Remarks: Acft transporting any items listed in part 49 of CA prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 290′ N. 4424′ avbl lndg rnwy 35. 4186′ avbl lndg rnwy 17. No ngt operns rnwy 8-26. 1046′ (1049′ MSL) TV twr 8 NM S. 1049′ MSL) TV twr 7 NM SE.
Lakefront Tower 119.5 126.2 122.5R **Gnd Con** 121.7
Radar Services:
New Orleans App Con 125.5 122.7R 118.1
New Orleans Dep Con 120.6

§NEW ORLEANS INTL-MOISANT FLD *IFR* 10 W
FSS: NEW ORLEANS (DL)
3 H92/10-28(3) (S-180, T-225, TT-425) BL4,6,8A,9,11,14,15
S1 F5, JP1, JP5 U2 **REIL:** Rnwy 1 **RVR:** Rnwy 10
Remarks: Fee on gross lndg wt. U.S. Customs-Lndg rights arpt (1300-1700Z Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 28 threshold displaced 720′ SW. Usable length rnwy 28—8507′: rnwy 10-9227′. 720′ E of rnwy 28 threshold usable tkof only with approval ctl twr.
Moisant Tower 119.9 122.7R 278T **Gnd Con** 121.9
Clrnc Del: 127.2
Radar Services: (BCN)
New Orleans App Con [1]125.5 122.7R 118.1 109.9T
New Orleans Dep Con 120.6
Tfc Info Ctc App Con on 125.5, for other arpts in or transversing the area ctc App Con on 118.1
ASR Rnwys 1, 5 Ceil 500 Vsby 1 mi Min Alt 503.
Rnwys 10, 23, 28 Ceil 400 Vsby 1 mi Min Alt 403.
Rnwy 19 Ceil 700 Vsby 1 mi Min Alt 703.
ILS 109.9 I-MSY Apch Brg 099° **LOM:** 338/MS
New Orleans (H)BVORTAC 113.2/MSY 4.4 NM to fld.
New Orleans RBn SBH 338/MS 099° 6.6 NM to rnwy 1
VHF/DF Ctc twr.
Remarks: [1]Acft transitioning New Orleans NAS MCC freq 126 during above 5000′; during VFR use New Orleans App Con freqs 118.1 & 122.7R. LOM is SBH.

POLK (L) VOR 108.4/POE

SHREVEPORT
§GREATER SHREVEPORT *IFR* 4 SW **FSS:** SHREVEPORT on F
257 H73/13-31(2) (S-83, T-120, TT-201) BL4, 6, 8A, 9, F
RVV: Rnwy 13
Shreveport Tower 118.3 122.7R 201T **Gnd Con** 121.9
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.
Shreveport Dep Con 119.9
Tfc Info Ctc App Con on 118.5
ILS 110.3 I-SHV Apch Brg 136° **LOM:** 23

LOUISIANA—*Continued*

Greater Shreveport (Continued)
Shreveport RBn H–SAB 230●/SH 136° 3.6 NM to rnwy 14.
Remarks: LOM is H-SAB

§SHREVEPORT DOWNTOWN *IFR* 2 N **FSS:** SHREVEPORT (DL)
179 H45/14–32(3) (S30) BL4 S5 F4
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Shreveport App Con 118.5 123.9 122.5R 117.4T 114.8T
Shreveport Dep Con 119.9
(T)VOR 108.6/DTN at fld.
Shreveport (H) BVORTAC 117.4/SHV 158° 16 NM to fld.

TIBBY (L) BVORTAC 112.0/TBD **FSS:** NEW ORLEANS

WHITE LAKE (L) BVOR 111.4/LLA **FSS:** LAFAYETTE

MAINE

AUGUSTA (L)BVORTAC 111.4/AUG **FSS:** AUGUSTA
RBn BH 221/AUG

BANGOR (H)BVORTAC 114.8/BGR **FSS:** OLD TOWN
Rng SBRAZ[1] 239/BW
Remarks: [1] Reliable reception distance 65 NM.

BAR HARBOR RBn MHW 320/BHB **FSS:** OLD TOWN

BRUNSWICK (L) VOR 116.2/NHZ
Rng MRLZ[1] 368/NZ
Remarks: [1] Reliable reception distance 50 NM.

HOULTON (L)BVOR 108.2/HUL **FSS:** HOULTON

KENNEBUNK (H) BVORTAC 117.1/ENE **FSS:** PORTLAND

MILLINOCKET (H)BVORTAC 117.9/MLT **FSS:** MILLINOCKET
RBn H–SAB 344●/MLT

NEW GLOUCESTER RBn MHW 266/GLU
Remarks: Owned and operd by Airport Commission.

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§PORTLAND MUNI *IFR* 2W **FSS:** PORTLAND on Fld
66 H50/11–29(2) (S–94, T–116, TT–) BL 5, 6, 8A, 9, 10 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 29 **RVV:** Rnwy 11
Remarks: U.S. Customs lndg rgts arpt. ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27′ lctd at the end of rnwy and 800′ rgt cntrline. Lesser penetrations lctd 250′–430′ from end of rnwy and 720′–890′ left cntrline. 1890′–2180′ from end of rnwy and 900′–1090′ left cntrline.
Tower 120.9 122.5R 109.9T **Gnd Con** 121.9
App Con 120.9
ILS 109.9 I–PWM Apch Brg 112° BC unusable **LOM:** 394/PW

PRESQUE ISLE (H)BVORTAC 116.4/PQI **FSS:** HOULTON

PRINCETON (L)BVOR 114.3/PNN **FSS:** HOULTON

ROCKLAND RBn MHW 353/RKD **FSS:** AUGUSTA

SPRAGUEVILLE Rng SMLWZ 371/SPR **FSS:** HOULTON
Remarks: Reliable reception distance 40 NM.

WATERVILLE RBn MHW 375/AVI **FSS:** AUGUSTA

MARYLAND

ABERDEEN RBn MHWZ 349/APG

ANDREWS (L)VORTAC 113.1/ADW

BALTIMORE
§FRIENDSHIP INTL *IFR* 8 S **FSS:** WASHINGTON (LC 766–3420
146 H94/10–28(3) (S–100, T–220, TT–500) BL6, 8A, 9, 10, 11 S5 F5, JP1, JP4, JP5, U2 DT2 **VASI:** Rnwy 28 **RVR:** Rnwy 10 **REIL** rnwy 4, 22
Remarks: U.S. Customs lndg rgts arpt. Clsd 0300 to 1130Z to practice approaches or landings by turbojet and turboprop due noise complaints.
Tower 118.7 122.7R 109.7T **Gnd Con** 121.9

MARYLAND—*Continued*

Radar Services:
Baltimore App Con 119.7 125.9[2]
Baltimore Dep Con 120.4
Tfc Info: Expanded radar service avbl.
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646.
ILS[3] 109.7 I–BAL Apch Brg 102° **LOM:** 219/BA
Baltimore (L) BVORTAC 113.8/BAL on fld.
VHF/DF Ctc twr.
Remarks: [1] 101°–281° [2] 282°–100° [3] Glide slope unusable below 360′ MSL. **VOT:** 198.2.

CUMBERLAND RBn MHW 317/CBE **FSS:** MARTINSBURG

FREDERICK (T)BVOR 109.0/FDK **FSS:** MARTINSBURG

GAITHERSBURG RBn MHW 385/GAI **FSS:** WASHINGTON

GRANTSVILLE (L) BVORTAC 112.3/GRV **FSS:** MORGANTOWN

HAGERSTOWN MUNI *IFR* 4N **FSS:** MARTINSBURG
704 H54(2) BL4 S5 F5 JP1 U2 (LC 733–1374
Fairchild Tower:[1] 118.5 126.2 ~~121.5~~
VFR ADV: Ctc Washington, Dulles Intl APP CON
Hagerstown (L) BVOR 109.8/HGR
Remarks: [1] Opers 7:30–1600 lcl time Mon-Fri. Operd by Fairchild Hiller Acft Corp.

NOTTINGHAM (L)BVORTAC 116.0/OTT **FSS:** WASHINGTON

PATUXENT (L)BVORTAC 117.6/PXT **FSS:** SALISBURY

POOLESVILLE RBn MHW 280/PLV **FSS:** WASHINGTON

SALISBURY (L)BVORTAC 114.5/SBY **FSS:** SALISBURY

SNOW HILL (L)BVORTAC 112.4/SWL **FSS:** SALISBURY

WESTMINSTER (H)BVORTAC 117.9/EMI **FSS:** WASHINGTON

MASSACHUSETTS

BEDFORD
§LAURENCE G HANSCOM FLD *IFR* 1 S **FSS:** BOSTON (DL)
133 H70/11–29(2) (S–200, T–200, TT–400) BL5, 6, 8A, 9, 10, 11 S5, F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 11, 29
REIL: Rnwys 23, 29 **RVV:** Rnwy 11
Remarks: U.S. Customs lndg rgts arpt. 1199′ (1349′ MSL) and 1249′ (1349′ MSL) TV twrs 10 NM S. FEE for commercial acft over 5000′ lbs.
Tower 118.5 122.5R **Gnd Con** 121.7
Radar Services:
Boston App Con 124.4
ILS 109.5 I-BED Apch brg 112° **LOM:** 512/BE
Bedford (L)VOR 116.0/BED on fld.
Bedford RBn HW 512/BE 112° 4.0 NM to fld.
VHF/DF Ctc twr.
Remarks: LOM is HW. **VOT:** 110.0

BEVERLY RBn MHW 269/TOF **FSS:** BOSTON

BOSTON
§LOGAN INTL *IFR* 1 E **FSS:** BOSTON on Fld
19 H100/4R–22L(4) (S–100, T–200, TT–400) BL6, 8A[1], 9[2], 10 S5 F5, JP4, JP5 U2 DT2 **VASI:** Rnwy 22L **RVR:** Rnwy 4R, 33L
RVV: Rnwy 22L
Remarks: U.S. Customs lndg rgts arpt. FEE. Lndg threshold rnwy 4R displaced 2507′ to NE, 10,000′ avbl except lndg length toward NE restricted to 7493′ during IFR conditions and hrs of darkness. Rnwy 4L–22R usable width 150′ threshold at apch end rnwy 22R relocated 800′ SW. 1199′ (1349′ MSL) 1063.5 (1184′ MSL) TV twrs 10 NM SW. [1] Non-standard cntrline apch lgt sys. [2] Sequence flashers extend only 1200′.
Boston Tower 119.1 126.2 122.5R 110.3T **Gnd Con** 121.9
‡Clrnc Del 121.65
ATIS: 112.7

MASSACHUSETTS—*Continued*

Logan Intl (Continued)
Radar Services: (BCN)
Boston App Con [2]120.6 [1]126.5 126.2 124.4 122.5R 110.3T
Boston Dep Con 128.6 . 124.4
Tfc Info: Expanded radar service avbl.
PAR[4] Rnwy 4R Ceil 200 Vsby ½ mi Min Alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719.
Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619.
Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519.
ILS 110.3 I–BOS Apch Brg 035° BC unusable **LOM:** 221/BO
110.7 I–LIP[3] Apch Brg 330° BC unusable **LOM:** 346/LI
Boston (H)VORTAC 112.7/BOS on fld.
Boston RBn H–SAB 382●/BOS 234° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219′ MSL. [4]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

CHESTER (L)BVOR 117.3/CTR **FSS:** WINDSOR LOCKS

DEVENS RBn MHW 352/AVE

FALL RIVER RBn MHW 395/FLR **FSS:** NANTUCKET

FITCHBURG RBn MHW 206/FIT **FSS:** BOSTON

GARDNER (L)BVORTAC 110.6/GDM **FSS:** WORCESTER

HYANNIS
§BARNSTABLE MUNI ***IFR*** 1 N **FSS:** NANTUCKET (DL)
52 H55/6–24(2) (S–63, T–110, TT–) BL5, 6, 8A, 9, 11 S5 F5, JP1, JP5 U2 DT2 **RVV:** Rnwy 24 **REIL:** Rnwy 6
Remarks: Poles SE, SW. Rnwy 11–29 usable Oct 15–Apr 30 VFR days & by pilot req only.
Hyannis Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 127.7 134.1
Otis Dep Con 127.7
ILS[1] 110.5 I–HYA Apch Brg 245° BC unusable **LOM:** 342/HY
Hyannis (L)BVORTAC 108.6/HYA 241° 3.2 NM to rnwy 24.
Remarks: [1]Glide slope operg test.

LAWRENCE (T)BVOR 112.0/LWM **FSS:** BOSTON
RBn MHW 245/LWM

MARTHA'S VINEYARD (L)BVOR 108.2/MVY
RBn MHW 388/MVY **FSS:** NANTUCKET

§NANTUCKET MEMORIAL ***IFR*** 3 SE **FSS:** NANTUCKET on Fld
47 H50/6–24(2) (S–31, T–55, TT–) BL5, 6, 8A, 9 S3 F4 DT2 **RVV:** Rnwy 24
Tower [1]118.3 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
Otis App Con 118.2 134.1
Otis Dep Con 118.2
ILS 109.1 I-ACK Apch Brg 240° **LOM:** 248/AC
Nantucket (H)BVORTAC 117.7/ACK 240° 1.9 NM to Fld.
VHF/DF: ctc FSS.
Remarks: [1]Oper 1200–0400Z advisory svc other times.

§NEW BEDFORD MUNI ***IFR*** 2 NW **FSS:** NANTUCKET (DL)
79 H50/5–23(2) (S–63, T–110, TT–) BL5,6,8 S5 F4 TPI U2 DT2 **RVV:** Rnwy 5
Remarks: U.S. Customs lndg rgts arpt.
Tower 121.3 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.7 I–EWB Apch Brg 053° **LOM:** 274/EW

NORWOOD RBn MHW 212/OWD **FSS:** BOSTON

ORANGE RBn MHW 365/ORE **FSS:** WORCESTER
Remarks: State owned and operated.

MASSACHUSETTS—*Continued*

PITTSFIELD RBn MHW 343/PSF **FSS:** ALBA

PROVINCETOWN MHW 230/PVC **FSS:** NANTUCK
Operd Mass Aero Comm

WESTFIELD
§BARNES MUNI ***IFR*** 3 N **FSS:** WINDSOR LOCKS (LC 739–71
270 H90/2–20(3) (S–63, T–110, TT–195) BL5, 6 S3 F4, JP4 DT
Remarks: U.S. Customs lndg rgts arpt.
Westfield Tower[1] 118.1 122.5R
Westfield Gnd Con 121.7
Radar Service:
Westover App Con 120.0 134.1 109.2T 114.0T
Westfield Dep Con: 120.0 134.1
Westfield (L)BVOR 113.0/BAF on fld.
Westfield RBn SBMHZ 230/BAF 203° 4.8 NM to fld.
Remarks: [1]Oper 0700–2300 lcl time.

WHITMAN (L)BVORTAC 109.0/HTM **FSS:** BOSTO

§WORCESTER MUNI ***IFR*** 3 W **FSS:** WORCESTER on F
1009 H70 (11–29(3) (S–137, T–180, TT–297) BL6, 7, S
F4, JP1 U2 DT2 **RVV:** Rnwy 33
Remarks: U.S. Customs lndg rgts arpt. Rnwy 29 threshold displaced 150′.
Tower 120.5 121.9 110.9T **Gnd Con** 121.9
ILS[1] 110.9 I–ORH Apch Brg 332° BC unusable **LOM:** 282/O
Remarks: [1]ILS glide slope unusable below 1209′ MSL ac
roughness 750′ inside MM to lndg threshold. Auto an
manual apchs below alt not authorized.

MICHIGAN

ALMA RBn MH 329/AMN **FSS:** SAGINAW

ALPENA
§PHELPS COLLINS ***IFR*** 6 W **FSS:** PELLSTON (D
689 H90(18–36 (3) (S95–T125–TT210) BL6 S5 F4 U1
RVR: Rnwy 36.
Remarks: U.S. Customs lndg rgts arpt. Rnwy 18 9000′ avbl lndg
8000′ tkoff. Rnwy 36 8000′ avbl lndg. Rnwy 36 thresho
displaced 1000′. GCA(ASR–PAR) VFR trng status for availab
ctc twr, GCA civil freqs 118.5, 134.1 and 139.9.
Collins Tower 120.9 126.2 **Gnd Con** 121.9T 122.5
Alpena (L)BVORTAC 108.8/APN
Alpena RBn HW 414/APN 184° 4.4 NM to fld.

BATTLE CREEK
§W K KELLOGG REGIONAL AIRFIELD ***IFR*** 3 W **FSS:** JACKSON (D
941 H70/4–22(4) (S–80, T–140, TT–255) BL4,6,8A,9 S5 F5 T
Remarks: Rnwys 9–27, 18–36 clsd during winter months. E ra
S of twr and portion N ramp mil area not visible from twr.
Battle Creek Tower 118.5 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con on 121.2 when 25 mi out.
Battle Creek App Con 121.2 122.5R
ILS[1] 110.5 I–BTL Apch Brg 224°. **LOM:** 272/BT
Battle Creek (T)BVORTAC 109.4/BTL at fld.
Battle Creek RBn MHW 272/BT 3.7 NM to fld.
Remarks: [1]Glide slope unusable below 1141′ MSL. LOM is MHW

BELLAIRE RBn HW 251/ATM **FSS:** TRAVERSE C

BENTON HARBOR RBn MHW 400/BEH **FSS:** SOUTH BEN
Remarks: Privately owned and operated. Public instr flt rule ap
procedure predicated on facil.

BOYNE FALLS RBn MHW 263/BFA **FSS:** PELLSTO
Remarks: VFR use only.

CADILLAC RBn MHW 269/CAD **FSS:** TRAVERSE C

CARLETON (L)BVORTAC 115.7/CRL **FSS:** DETRO

CHARLEVOIX RBn MHW 222/CVX **FSS:** PELLSTO

COLDWATER RBn MHW 224/CWM **FSS:** JACKSO

MICHIGAN—*Continued*

DETROIT

§DETROIT CITY *IFR* 5 NE AOE **FSS:** DETROIT on fld
626 H51/15R–33L(3) (S250 T–350 TT) BL4, 11 S5 F4, JP1 U2 **REIL:** Rnwy 15
Remarks: 1063′ (1749′ MSL) 1057′ (1738′ MSL) twrs 10 WNW.
Tower 118.7 122.5R **Gnd Con** 121.9
Radar Services (BCN)
App Con 120.0 122.5R **Dep Con** 127.3
Tfc Info Ctc App Con on 120.0
ASR Rnwys 15R, 33L, 25 Ceil 600 Vsby 1 mi Min Alt 1226
ILS 111.3 I–DET Apch Brg 146° BC unusable **LOM** 338/DE
VHF/DF:[1] Ctc FSS
Remarks: [1]To be decomsnd Dec 15. **VOT:** 109.8.

§DETROIT METROPOLITAN WAYNE *IFR* 13 SW AOE **FSS:** DETROIT (DL)
639 H105/3L–21R (4) (S–100, T–150, TT–270) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, JP4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 3L, 21R **REIL:** Rnwy 3R
Remarks: Fee. Rnwy 15 threshold displaced 650′. Acft on final apch btn ½–1 mi from threshold rnwy 21R and operg below 1150′ MSL cannot be observed from ctl twr.
Metro Tower 121.1 126.2 122.7R 122.7R 109.3T 110.7T
‡Clrnc Del 120.65 **Gnd Con** 121.7
Radar Services:
Metro App Con 124.9[2] 125.15[1] 123.7[2]
Metro Dep Con 118.4[1] 123.7[2]
Tfc Info Ctc 123.7, 124.9 App Con.
ASR Rnwy 9, 3L, 3R, 21L, 27, 33 Ceil 400 Vsby 1 mi Min Alt 1039 Rnwy 21R Ceil 500 Vsby 1 mi Min Alt 1139
ILS 109.3 I–DTW Apch Brg 032° **LOM:** 388/DT
110.7[3] I-DWC Apch Brg 212° **LOM:** 367/DW
Detroit RBn H–SAB 388●/DT 037° 6.6 NM to rnwy 3R
VHF/DF: Ctc FSS
Remarks: LOM is SAB. [1]001–180, [2]181–360, [3]ILS unusable for auto apchs below 400′ AGL. Lclzr unusable beyond 12 mi outside 20° E side front crs. **VOT:** 109.0.

§WILLOW RUN *IFR* 19 SW **FSS:** DETROIT (DL)
716 H75/5–23(6) (S–60, T–90, TT–200) BL4, 6, 8A, 9, 11 S5 F5, JP1, JP4 **RVR:** Rnwy 5R **REIL:** 23L
Remarks: First 500′ rnwy 9L not visible from twr. 320′ overrun area SW end rnwy 5R–23L usable only tkoff rnwy 5R lndg rnwy 23L.
Tower 121.3 122.6R ~~121.5~~ 109.5T 114.9T **Gnd Con** 121.9
Radar Services:
Metro App Con 124.9 125.15 123.7
Metro Dep Con 118.4 123.7
Tfc Info Ctc Metro App Con on 124.9 or 123.7
ILS 109.5 I–YIP Apch Brg 050° **LOM:** 359/YI
Willow Run (T)VOR 114.9/YIP at fld.
VHF/DF[2] Ctc FSS
Remarks: [1]Radar monitoring of instrument apchs only at pilot's request. [2]To be decomsnd Dec 15.

ESCANABA (L) BVOR 110.8/ESC **FSS:** MARQUETTE (DL)

FLINT

§BISHOP *IFR* 3 SW **FSS:** LANSING (DL)
781 H56/9–27 (S–40, T–60, TT–110) BL4,5,6,8A,9 S5 F4 U2 **RVR:** Rnwy 9.
Remarks: Rnwy 18 threshold displaced 635′.
Flint Tower 119.5 126.3 122.5R ~~121.5~~ 111.6T 109.9T
Gnd Con 121.9
VFR ADV Ctc App Con on 126.3 aprx 25 NM out.
Flint App Con 126.3 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° **LOM:** 269/FN
Flint (L)BVORTAC 111.6/FNT on fld.

MICHIGAN—*Continued*

GAYLORD (T) BVOR 109.2/GLR **FSS:** PELLSTON (DL)

GRAND RAPIDS

§KENT COUNTY *IFR* 6 SE **FSS:** SAGINAW
793 H66/8–26(2) (Max-45) BL6,8A,9,14 S5 F4, JP1 U2 **RVV:** Rnwy 26 **RVR:** Rnwy 26. **REIL:**[1] Rnwys 8, 36
Remarks: [1]Non-Fed.
Tower 119.3 122.5R **Gnd Con** 121.9
VFR ADV Inbnd VHF equipped acft ctc App Con on 124.6 10 mi out.
Grand Rapids App Con 124.6 122.5R 109.7T
ILS[1] 109.7 I–GRR Apch Brg 262° **LOM:** 263/GR
(L)BVOR 110.2/GRR 351° 5.7 NM to fld.
Remarks: [1]Glide slope unusable below 970′ MSL.

GROSSE ILE RBn HW 414/NFB

HOUGHTON (L)BVOR 112.8/CMX **FSS:** HOUGHTON
RBn H–SAB 227●/CMX

IRON MOUNTAIN (L)BVOR 111.2/IMT **FSS:** MARQUETTE

IRONWOOD (L)BVOR 108.8/IWD **FSS:** MARQUETTE

JACKSON

§REYNOLDS MUNI *IFR* 2W **FSS:** JACKSON on Fld
1000 H53/5–23(2) (S–60, T–80, TT–) BL5,11 S5 F4 U2 **REIL:** Rnwy 23 (1200–0400Z)
Remarks: Rnwy 5 threshold displaced 559′. Rnwy 31 threshold displaced 475′.
Jackson Tower [1]120.7 122.5R 109.6 **Gnd Con** 121.9
Clrnc Del 121.9
Jackson (L) BVORTAC 109.6/JXN on fld.
ILS 109.1 I–JXN **LOM:** 212/JX
Remarks: [1]Oper 1200–0400Z.

§KALAMAZOO MUNI *IFR* 1SE **FSS:** SOUTH BEND (DL)
874 H53/17–35(3) (S–30, T–50, TT–85[1]) BL4,6,8A,9 S5 F4 JP5
Remarks: [1](S–40, T–65, TT–110) avail rnwys 5–23 & 9–27. Rnwy 5 threshold displaced 496′ NE, rnwy 9 threshold displaced 325′ E, rnwy 27 threshold displaced 225′ W.
Tower[1] 118.3 122.7R ~~121.5~~ 362T **Gnd Con** 121.7
Battle Creek App Con 121.2
ILS[1] 110.9 I–AZO Apch Brg 352° **LOM:** 371/AZ
(L) BVOR 109.0/AZO on fld.
Remarks: [1]Oper 1200–0400Z. Lclzr and glide slope monitored by ATU. LOM unmonitored 2300–0700.

KEELER (L) BVORTAC 115.1/ELX **FSS:** SOUTH BEND

KINCHELOE (L) VOR 108.6/INR
RBn MHW 410/IN

LANSING

§CAPITAL CITY *IFR* 3NW **FSS:** LANSING on Fld
859 H65/9–27(2) (S–30, T–40, TT) BL5,6,8A,11 S5 F4, JP1 **RVR:** Rnwy 27 **REIL** Rnwy 6
Remarks: 1037′ (1889′ MSL) twr 8 NM ESE and 1023′ (1923′ MSL) twr 10 NM ESE. Tower unable to see all areas of arpt.
Lansing Tower 119.9 122.5R ~~121.5~~ 110.8T 110.1T
Gnd Con 121.9
Lansing App Con 125.9 122.5R 110.8T 110.1T
VFR ADV Ctc App Con on 125.9 aprx 25 NM out.
ILS 110.1 I–LAN Apch Brg 273° **LOM:** 219/LA
Lansing (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

LITCHFIELD (L) BVORTAC 111.2/LFD **FSS:** JACKSON

MANISTEE RBn HW 375/MBL **FSS:** TRAVERSE CITY

MARQUETTE (L) BVORTAC 109.0/MQT **FSS:** MARQUETTE

MENOMINEE (L) BVOR 109.6/MNM **FSS:** GREEN BAY

MT. PLEASANT (T) BVOR 109.8/MOP **FSS:** SAGINAW

MICHIGAN—*Continued*

§MUSKEGON CO *IFR* 4S **FSS:** MUSKEGON on Fld
628 H56/14–32(3) (S–40, T–65, TT–110) BL6,8A,9 S5 F4 U2
RVR: Rnwy 32
Remarks: Rnwy 36 threshold displaced 300′. Rnwy 14 threshold displaced 300′.
Tower 121.1 122.5R **Gnd Con** 121.9
VFR ADV Ctc App Con aprx 25 mi out on 118.2
App Con 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 1–MKG Apch Brg 317° BC unusable **LOM:** 219/MK
(L) BVORTAC 115.2/MKG 8.4 NM to fld
Remarks: [1]Glide slope unusable below 828′ MSL.

PECK (H) BVORTAC 114.0/ECK **FSS:** FLINT

PELLSTON (L) BVORTAC 111.8/PLN **FSS:** PELLSTON
RBn BMH 332/PLN

§PONTIAC MUNI *IFR* 5W **FSS:** DETROIT (DL)
974 H53/9–27(3) (S–40, T–65, TT–110) BL6 S5 F4 U2
Tower [1]120.5 122.5R ~~121.5~~ 275Tx **Gnd Con** 121.9
(L) BVORTAC 111.0/PTK 119° 4.9 NM to fld.
Remarks: [1]Oper 0700–2300 lcl time.

PULLMAN (H) BVORTAC 112.1/PMM **FSS:** SOUTH BEND

REED CITY RBn MHW 275/RCT **FSS:** MUSKEGAN

SAGINAW
§TRI CITY *IFR* 9NW **FSS:** SAGINAW on fld
667 H56/5–23(2) BL6,11 S5 F4, JP5 U2
REIL rnwy 5.
Tower[1] 120.1 122.5R **Gnd Con** 121.9
App Con: 120.1 112.9T 122.5R
(L) BVORTAC 112.9/MBS on fld.
VHF/DF Ctc FSS.
Remarks: [1]Oper 0700–2300 lcl time.

SALEM (L) BVORTAC 114.3/SVM **FSS:** DETROIT

SAULT STE MARIE (H) BVORTAC 112.2/SSM **FSS:** SAULT STE MARIE
RBn H–SAB 400●/SSM

SAWYER (H) VOR 117.5/SAW
RBn HW 359/SAW

THREE RIVERS RBn MHW 407/HAI **FSS:** JACKSON

TRAVERSE CITY (L) BVOR 112.4/TVC **FSS:** TRAVERSE CITY
RBn H–SAB 365●/TVC

WHITE CLOUD (L) BVOR 117.6/HIC **FSS:** MUSKEGON

WHITEFISH (L) BVORTAC 116.6/FSP **FSS:** SAULT STE MARIE

MINNESOTA

ALBERT LEA RBn MHW 400/AEL
Remarks: VFR use only. Owned and operd by state.

ALEXANDRIA (L) BVOR) 112.8/AXN **FSS:** ALEXANDRIA

AUSTIN (T) BVOR 108.8/AUM **FSS:** ROCHESTER

BAUDETTE (L) BVOR 111.6/BDE **FSS:** HIBBING

BEMIDJI (L) BVOR 108.6/BJI **FSS:** HIBBING

BRAINERD (L) BVOR 109.2/BRD **FSS:** ALEXANDRIA

DARWIN (L) BVORTAC 109.0/DWN **FSS:** MINNEAPOLIS

§DULUTH INTL *IFR* 5NW (AOE) **FSS:** HIBBING
1429 H101/9–27(3) (S–80, T–112.5, TT–205) BL4,6,8A,9,10 F5, JP4 DT2 **VASI:** Rnwy 27 **RVV:** Rnwy 9–27
Remarks: 1000′ overruns rnwy 9–27.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 125.8 122.5R 112.6T 110.3T
Dep Con 126.2
Tfc Info Ctc App Con on 125.8

MINNESOTA—*Continued*

PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 Ceil 300 Vsby ¾ mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829.
Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I–DLH Apch Brg 087° **LOM:** 379/DL
(H)BVORTAC 112.6/DLH 012° 2.2 NM to rnwy 3.
RBn H–SAB 379●/DL 087° 5.6 NM to rnwy 9.
Remarks: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. LOM is H–SAB. [1]Glide slope unusuable beyond 12 NM. ILS unusable below 1629′ MSL.

EVELETH (T) BVOR 108.2/EVM **FSS:** HIBBING

FERGUS FALLS (T) BVOR 110.4/FFM **FSS:** ALEXANDRIA
Remarks: State owned.

FAIRMONT (T)BVOR 110.2/FRM **FSS:** MASON CITY
Remarks: VFR use only.

FARMINGTON (L) BVOR 115.7/FGT **FSS:** MINNEAPOLIS

GRAND RAPIDS (L) BVOR 111.4/GPZ **FSS:** HIBBING

HIBBING (L) BVOR 110.8/HIB **FSS:** HIBBING

INTERNATIONAL FALLS (L) BVOR 111.0/INL **FSS:** HIBBING

MANKATO (L) BVOR 110.8/MKT **FSS:** MINNEAPOLIS

MINNEAPOLIS
§CRYSTAL *IFR* 8NW **FSS:** MINNEAPOLIS (DL)
869 H32/13L–31(2) (S–21) BL5 S5 F4
Remarks: Sod strips ruf. Portions of arpt not visible from twr. Rnwy 5L–23R threshold displaced 400′ lndg distance avbl 2100′.
Tower [1]120.7 122.5R **Gnd Con** 121.9
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
Remarks: [1]Oper 0600–2200.

§FLYING CLOUD *IFR* 11SW **FSS:** MINNEAPOLIS (DL)
909 H36/9L–27R(3) (S–14) BL5,11 S5 F4
REIL: Rnwy 9L
Tower[1] 118.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R
Minneapolis Dep Con 119.3
Tfc Info: Ctc Minneapolis App Con 126.5.
(L) BVOR 111.8/FCM at fld.
Remarks: [1]Oper 0600–2200.

§MINNEAPOLIS-ST. PAUL INTL (Wold Chamberlain) *IFR* 6S **FSS:** MINNEAPOLIS on Fld
840 H100/11R–29L(3) (S–110, T–150, TT–270) BL6,8A,9,10,11 S5, F5 JP1, JP4 U2 **VASI:** Rnwy 11R **RVR:** Rnwy 4, 29L
REIL Rnwy 11R, 22
Remarks: U.S. Customs lndg rgts arpt. First 1000′ NE end rnwy 4–22 clsd to non-mil acft. Rnwy 11L–29R threshold displaced 610′ SE Twr unable to see all areas of arpt.
Minneapolis Tower 118.7 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 119.55
Radar Services: (BCN)
Minneapolis App Con 120.0 126.5 122.7R 121.2 117.3T 110.37 109.39
Minneapolis Dep Con 119.3
Tfc Info Ctc App Con on 126.5
PAR Rnwy 29L Ceil 200 Vsby ½ mi Min Alt 1040
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt 1240
Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440.
Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340

MINNESOTA—*Continued*

Minneapolis-St. Paul Intl (Continued)

ILS 110.3 I–MSP Apch Brg 295° **LOM:**[2] 266/MS
109.3[1] I–APL Apch Brg 039° **LOM:** 338/AP
(H) BVORTAC 117.3/MSP 154° 16.5NM to fld.
RBn H–SAB 266●/MS 295° 5.5 NM to Rnwy 29L
VHF/DF: ctc FSS.
Remarks: CAUTION—on apch to rnwy 11R do not descend below 1400′ until radar controller has advised passing twr 2.5 from apch end rnwy 11R. [1]BC unusable beyond 16 nmi. [2]LOM is H-SAB. **VOT:** 111.0.

NEW ULM RBn MHW 272/ULM
Remarks: VFR use only. Owned and operated by the state.

NODINE (H) BVORTAC 117.9/ODI FSS: LaCROSSE, WIS.

PARK RAPIDS (L) BVOR 110.6/PKD FSS: GRAND FORKS

REDWOOD FALLS (L) BVOR 113.3/RWF FSS: REDWOOD FALLS

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§ROCHESTER MUNI *IFR* 7S FSS: ROCHESTER on Fld
1316 H64/13–31(2) (S–126, T–159, TT–260) BL4,6,8A,9 S5 F4, JP4 U2 **RVR:** Rnwy 31
Remarks: Rnwy 2–20 clsd to acft over 50,000 lbs GWT unless cross wind component rnwy 13–31 exceeds 25 knots.
Tower 118.3 122.5R 121.9 278Tx **Gnd Con** 121.9
VFR ADV Ctc App Con on 119.8
App Con 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I–RST Apch Brg 307° **LOM:** 254/RS
(L) BVOR/DME 112.0/RST 025° 8.3NM to fld.
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST. CLOUD (T) BVOR 111.6/STC FSS: MINNEAPOLIS
Remarks: VFR use only.

ST PAUL
§ST PAUL-DOWNTOWN (Holman Fld) *IFR* 1S FSS: MINNEAPOLIS (DL)
703 H55/12–30(3) (S–54, T–87, TT–160) BL2,5,11 S5 F5, JP5 U2
REIL: Rnwy 30
Remarks: 4562′ avbl lndg rnwy 12.
St. Paul Tower [1]119.1 122.5R **Gnd Con** 121.7
Radar Services:
Minneapolis App Con 120.0 121.2 126.5 122.7R 117.3T 111.8T 110.3T 109.3T 266T
Minneapolis Dep Con 119.3
Tfc Info Ctc Minneapolis App Con on 126.5.
St Paul (T)BVOR 108.6/STP 289° 4.6NM to fld.
Remarks: [1]Oper 0600–2200 lcl time.

THIEF RIVER FALLS (L) BVOR 108.4/TVF FSS: GRAND FORKS

TWIN CITIES RBn MHW 282/NJU

WILLMAR (T) BVOR 108.4/ILL FSS: REDWOOD FALLS

WINONA (T) BVOR 111.4/ONA FSS: LA CROSSE

WORTHINGTON (L) BVOR 110.6/OTG FSS: REDWOOD FALLS

MISSISSIPPI

COLUMBUS (L) BVORTAC 116.2/UBS FSS: TUSCALOOSA

GREEN COUNTY (L) BVOR 110.4/GCV FSS: MOBILE

GREENVILLE (T) BVOR 110.2/GLH FSS: GREENWOOD

GREENWOOD (H) BVORTAC 114.7/GRW FSS: GREENWOOD

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§GULFPORT MUNI *IFR* 3NE FSS: MOBILE (LC 436–4242)
28 H90/13–31(3) (S–80, T–120, TT–210) BL4,6 S5 F5, JP1 U2
Remarks: 1000′ overruns ea end Rnwy 13–31.
13–31.
Tower 121.3 122.5R 109.0T **Gnd Con** 121.9
App Con 124.6 122.5R 109.0T
(L) BVORTAC 109.0/GPT on fld.

MISSISSIPPI—*Continued*

HATTIESBURG (L) BVORTAC 110.6/HBG FSS: McCOMB (LC 582–2009)

HOLLY SPRINGS (L) BVOR 112.4/HLI FSS: MEMPHIS

JACKSON
§HAWKINS FIELD *IFR* 2NW FSS: JACKSON
343 H54/16–34(2) (S–30, T–45, TT–80) BL4,6 S5 F4 JP1 U2
Remarks:[1] 1529′ (1949) twr 10 NM SW 1615′ (1949′) twr 10 NM WSW.
Tower[3] 118.7 126.2 122.5R ~~121.5~~
Radar Services:
Jackson App Con 123.9[1] 125.2[2]
Jackson Dep Con 123.9 125.2
Jackson RBn H–SAB 260●/JAN 183° 2.3NM to fld.
Remarks: [1]333°–152°. [2]153°–332°. [3]1200–0400Z.

§THOMPSON FIELD *IFR* 5E FSS: JACKSON on Fld
345 H85/15L–33R(2) (S–120, T–150, TT–265) BL6,8 S5 F5, JP1 U2 **RVV:** Rnwy 15L.
Jackson Tower 120.9 126.2 122.7R 348T **Gnd Con** 121.7
Radar Services: (BCN)
Jackson App Con 125.2[1] 123.9[2]
Jackson Dep Con 125.2[1] 123.9[2]
ASR Rnwys 15L, 33R Ceil 400 Vsby 1 mi Min Alt 745
Tfc Info: Ctc App Con
ILS 110.5 I–JAN Apch Brg 153° **LOM:** 365/JA
Jackson (H) BVORTAC 112.6/JAN 152° 11.7NM to rnwy 15L.
VHF/DF Ctc FSS
Remarks: [1]153°–332°. [2]333°–152°.

KEESLER RBn HW 391/BIX

KEWANEE (L) BVOR 113.8/EWA FSS: MERIDIAN

LAUREL (L) BVOR 108.6/LUL FSS: MERIDIAN

McCOMB (H) BVORTAC 116.7/MCB FSS: McCOMB

MERIDIAN
§KEY FIELD *IFR* 3SW FSS: MERIDIAN on Fld
297 H80/1–19(2) (S–45, T–120, TT–220) BL6 S3 F4, JP3
RVV: Rnwy 01
Remarks: Transmissometer rnwy 1. Rnwy lgts on request after midngt. Servicing Fee after 7 P.M.
Tower[1] 118.2 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Meridian App Con 120.5
Meridian Dep Con 124.8
ILS 110.1 I–MEI Apch Brg 004° BC unusable **LOM:** 356/ME
Meridian (H)BVORTAC 117.0/MEI 129° 3.5NM to fld.
Remarks: [1]Twr opers 1300–0500Z. Glide slope unusable below 384′ MSL.

NATCHEZ (L) BVOR 110.0/HEZ FSS: McCOMB

PICAYUNE (L) BVOR 112.2/PCU FSS: NEW ORLEANS

TUPELO (L) BVOR 109.8/TUP FSS: MUSCLE SHOALS

MISSOURI

BLACKWATER (L) BVOR 110.6/BWR FSS: COLUMBIA

BLUE SPRINGS (L) BVORTAC 113.6/BSP FSS: KANSAS CITY

BULTER (H) BVOR/DME 115.9/BUM FSS: KANSAS CITY

CAPE GIRARDEAU (L) BVOR 112.9/CGI FSS: CAPE GIRARDEAU

COLUMBIA (T) BVOR 111.2/CBI FSS: COLUMBIA

DOGWOOD (L) BVORTAC 109.4/DGD FSS: SPRINGFIELD

FARMINGTON (H) BVORTAC 115.7/FAM FSS: CAPE GIRARDEAU

MISSOURI—*Continued*

KANSAS CITY
§MID-CONTINENT INTL *IFR* 15NW **FSS:** KANSAS CITY
1011 H90/18-36(1) (S-100, T-188, TT-350) BL6,8A,9
RVR: Rnwy 36
Tower 120.7 **Gnd Con** 121.8
Radar Services:
Kansas City App Con 118.9[1] 126.2 122.7R 121.1[2]
112.6T 109.9T **Kansas City Dep Con** 118.1
Tfc Info Ctc Kansas City App Con.
ILS 110.5 I-MCI Apch Brg 005° **LOM:** 359/MC
RBn H-SAB 359●/MC 005° 4.4 to rnwy 36.
Remarks: [1]E sector. [2]W sector. LOM is H-SAB.

§KANSAS CITY MUNI *IFR* 4N **FSS:** KANSAS CITY on Fld
758 H70/18-36(3) (S-110, T-165, TT-365) BL4,6,8A,9,11,13
S5 F4, JP1 U2 **RVV:** Rnwy 18 **REIL:** Rnwy 36
Remarks: Rnwy 35 usable daylight hrs only. 1042′ (2049′ MSL) twr 3.5NM S and 1023′ (1946′ MSL) twr 4.5NM ESE. Tfc patn acft under 12,500 lbs is 800′ AGL. Lead-in lgts rnwy 36.
Tower 118.3 126.2 122.7R 121.1 111.4T **Gnd Con** 121.9
‡Clrnc Del: 121.9
ATIS: [4]111.4
Radar Services: (BCN)
App Con 118.9[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
Dep Con 118.1
Tfc Info: Ctc App Con
PAR Rnwy 18 Ceil 400 Vsby 1 mi Min Alt 1158.
ILS[3] 109.9 I-MKC Apch Brg 187° BC unusable **LOM:** 219/MK
(H) BVORTAC 112.6/MKC 171° 8.7NM to fld.
Riverside (T) VOR 111.4/RIS on fld.
VHF/DF Ctc twr.
Remarks: Acft approaching from 001-180° use 118.9 and/from 179°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014′ MSL. Front crs unusable beyond 20 NM. [4]Oper 0600-2400 lcl time
VOT: 108.6.

KIRKSVILLE (H) BVORTAC 114.6/IRK **FSS:** KIRKSVILLE

LAKE RBn HW 385/LAQ **FSS:** ST. LOUIS

MACON (L) BVOR 112.9/MCM **FSS:** KIRKSVILLE

MALDEN (L) BVOR 111.2/MAW **FSS:** CAPE GIRARDEAU

MAPLES (L) BVORTAC 113.4/MAP **FSS:** VICHY

MARSHALL (L) BVOR/DME 109.6/MHL **FSS:** COLUMBIA

MARYLAND HEIGHTS (L) BVORTAC 110.8/MTS **FSS:** ST. LOUIS

NEOSHO (L) BVOR 116.6/EOS **FSS:** JOPLIN

READSVILLE (L) BVOR 112.0/REA **FSS:** COLUMBIA

RICHARDS-GEBAUR (L) VOR 111.0/GVW **FSS:** KANSAS CITY

RICHWOODS (L) BVOR 109.2/RCW **FSS:** ST. LOUIS

ST JOSEPH
§ROSECRANS MEMORIAL *IFR* 3WNW **FSS:** KANSAS CITY (DL)
826 H80/17-35(3) (S-60, T-160, TT-250) BL4,6,8 S5 F4 TP1
RVV: Rnwy 35
Tower 119.9 122.5R **Gnd Con** 121.9
App Con: 119.9 122.5R 108.2T 110.3T
ILS 110.3 I-STJ Apch Brg 352° **LOM:** 260/ST
(L) BVORTAC 108.2/STJ 167° 10.7NM to fld.

ST. LOUIS
§LAMBERT-ST LOUIS *IFR* 10NW **FSS:** ST. LOUIS on Fld
571 H100/12R-30L(4) (S-100, T-200, TT-400) BL4,6,8A,9,12 S5 F5, JP1, JP5 U2 DT2 **RVR:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt (3 hr advance notice rqrd). Threshold lgts permly relctd 2960′ SE apch end rnwy 12R.
St. Louis Tower 118.5 126.2 122.7R **Gnd Con** 121.9
‡Clrnc Del 119.5

MISSOURI—*Continued*

ATIS[4]: 110.3 109.7
Radar Services: (BCN)
St. Louis App Con 126.5[1] 123.7 118.1[2]
117.4T **St. Louis Dep Con** 119.9
Tfc Info Ctc St. Louis App Con.
PAR[3] Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 Min Alt 1071.
Rnwys 12L, 30R Ceil 500 Vsby 1½ mi Min Alt 1071.
Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° **LOM:** 404/ST
109.7 I-LMR Apch Brg 117° **LOM:** 338/LM
VHF/DF Ctc twr.
St. Louis (H) BVORTAC 117.4/STL 138° 8.0NM to fld.
St. Louis RBn H-SAB 338●/LM 117° 5.3 NM to fld.
Remarks: [1]Southeast arrivals. [2]Northwest arrivals. [3]Radar monitoring of instrument apchs only at pilot's request. LOM is H-SAB. [4]Opers 0600-2400 lcl. **VOT:** 111.0

§ SPIRIT OF ST. LOUIS 20W **FSS:** ST. LOUIS (DL)
462 H51/7-25(1) (S-33, T-50, TT-80) BL6 S5 F4 JP1 DT2
Remarks: Special Air Traffic Rules—Part 93, Subpart G in effect. Rgt tfc rnwy 7. When twr clsd tkoff W only, lndgs not authorized.
Tower[1] 118.3 122.5R **Gnd Con** 121.7
St. Louis App Con 126.5[2] 118.1[3]
VFR/ADV Ctc App Con St. Louis, Lambert-St. Louis.
Remarks: [1]Opers 0700-2200 lcl time. [2]Southeast arrivals. [3]Northwest arrivals.

§SPRINGFIELD MUNI *IFR* 5NW **FSS:** SPRINGFIELD on Fld
1267 H56/1-19(2) (S-65, T-95, TT-165) BL5,6,8A,9 S5 F5, TP1 **RVV:** Rnwy 1
Tower 119.9 122.5R **Gnd Con** 121.9
VFR ADV 125.8
App Con 125.8 122.5R 116.9T 109.9T
ILS 109.9 1-SGF Apch Brg 015° **LOM:** 404/SG
(H) BVORTAC 116.9/SGF 193° 6.8NM to fld
RBn H-SAB 254●/SGF 137° 3.6NM to fld
VHF/DF: ctc FSS.

VICHY (L) BVORTAC 117.7/VIH **FSS:** VICHY

WHITEMAN (L) VOR 109.0/SZL
RBn HW 314/SZL

MONTANA

BILLINGS
§LOGAN FIELD *IFR* 2NW **FSS:** BILLINGS on Fld
3606 H86/9-27(3) (S-130, T-200, TT-400) BL2,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 9 **RVR:** Rnwy 9
Remarks: 1000′ overrun each end rnwy 9-27.
Billings Tower 118.3 122.5R
VFR ADV: 120.5
Billings Gnd Con 121.9
Billings App Con 120.5 122.5R 114.5T 110.3T
ILS 110.3 I-BIL Apch Brg 095° **LOM:** 251/BI
Billings RBn H-SAB 400●/BIL 243° 1.4NM to fld.
VHF/DF: ctc FSS.

BOZEMAN (L) BVOR 112.2/BZN **FSS:** BOZEMAN
RBn H-SAB 329●/BZN

BUTTE (L) BVORTAC 111.6/BTM **FSS:** BUTTE

CUT BANK (L) BVORTAC 114.4/CTB **FSS:** CUT BANK
RBn[1] **BH** 263/CTB
Remarks: [1]VFR use only.

FORNEY (L) VOR 110.0/TBN
RBn MH 391/TBN

MONTANA—*Continued*

HALLSVILLE (L) BVORTAC 115.4/HLV FSS: COLUMBIA

JEFFERSON CITY (L) BVOR 110.2/JEF FSS: COLUMBIA

§JOPLIN MUNI *IFR* 4NE FSS: JOPLIN on Fld
980 H55(3) BL4,6 S5 F4 U1
Remarks: 999′ (2049′ MSL) twr 5 NM SSW.
ILS[1] 110.3 I–JLN Apch Brg 131° **LOM:** 219/JL
Remarks: BC unusable within 1.5NM end of rnwy. Satisfactory for missed apchs. Front crs unusable below 1158′ MSL. 999′ (2049′ MSL) twr 5NM SSW.

DILLON (H) BVORTAC 113.0/DLN FSS: DILLON
RBn[1] **BH** 379/DLN
Remarks: [1]VFR use only.

DRUMMOND (L) BVOR 117.1/DRU FSS: MISSOULA

GLASGOW (H) VOR 113.9/GSG
RBn H 236/GSG

§GREAT FALLS INTL *IFR* 3SW FSS: GREAT FALLS on Fld
3671 H90/3–21(4) (S–60, T–80, TT) BL4,6,8 S5 F5,JP1 U2 **RVV:** Rnwys 16, 34
Remarks: Rnwy 7–25 not authorized to acft over 64,000 lbs GWT.
Tower 118.7 126.2 122.5R ~~121.5~~ **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 134.1 126.2 122.7R 122.5Rx 121.1 119.3 116.3T **Dep Con** 121.1
Tfc Info Ctc App Con on 118.1 119.3 or 122.7R
ASR Rnwy 21 Ceil 400 Vsby 1 mi Min Alt 4071
Rnwys 3, 34 Ceil 500 Vsby 1 mi Min Alt 4171
ILS 110.3 I–GTF Apch Brg 341° BC unusable **LOM:** 371/GT
(H) BVORTAC 115.1/GTF 026° 1.9 NM to fld
RBn H–SAB 371●/GT 009° 7.2 NM to fld.
Remarks: LOM is H–SAB.

§HELENA *IFR* 2NE FSS: HELENA on Fld
3873 H70/8–26(3) (S–90, T–120, TT–200) BL 5,11 S5 F4, JP1 U2 **REIL** rnwy 26
Remarks: Rnwy 11–29 clsd to acft over 100,000 lbs GWT. Rgt tfc W, SW, NW. Fee for commercial acft only.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 118.3
(H) BVORTAC 117.7/HLN at fld.
RBn[1] **SBH** 317/HLN
Remarks: [1]VFR use only.

KALISPELL (L) BVOR 108.4/FCA FSS: MISSOULA

LEWISTOWN (H) BVORTAC 112.0/LWT FSS: LEWISTOWN
RBn[1] **SBH** 353/LWT
Remarks: [1]VFR use only.

LIVINGSTON (L) BVORTAC 116.1/LVM FSS: LIVINGSTON
RBn[1] **BH** 224/LVM
Remarks: [1]VFR use only.

MALMSTROM (L) VOR 116.3/GFA

MILES CITY (H) BVORTAC 112.1/MLS FSS: MILES CITY
RBn H–SAB 320●/MLS

§MISSOULA CO *IFR* 4NW FSS: MISSOULA on Fld
3203 H–70/11–29(3) (S–120, T–155, TT–235) BL6 S5 F4 U2
Tower[1] 118.5 122.5R **Gnd Con** 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308●/MSO 121° 1.4 NM to rnwy 11.
Remarks: [1]Oper 1300–0500Z.

WHITEHALL (H) BVORTAC 113.7/HIA FSS: BUTTE

NEBRASKA

ALLIANCE (T) BVOR[1] 111.8/AIA FSS: SCOTTSBLUFF
RBn[1] **HW** 287/AIA
Remarks: [1]Owned by State.

BEATRICE (T) BVOR 110.6/BIE FSS: LINCOLN
Remarks: Owned by State.

CHADRON (L) BVOR 113.4/CDR FSS: CHADRON
RBn BH[1] 275/CDR
Remarks:[1] Owned by State.

COLUMBUS (T) BVOR 110.4/OLU FSS: LINCOLN
Remarks: Owned by State.

§GRAND ISLAND MUNI *IFR* 4NE FSS: GRAND ISLAND on Fld
1846 H72/3–21(3) (S–92, T–134, TT240) BL5,6,8A,9 S5 U–2 F5, JP–1
Remarks: 1000′ asphalt overrun both ends rnwy 17–35.
Tower[1] 118.1 122.5R
(L) BVORTAC 112.0/GRI 170° 0.4 NM to rnwy 17.
Remarks: [1]Oper 1200–0359Z.

HASTINGS (T) BVOR[1] 108.8/HSI FSS: GRAND ISLAND
RBn HW 338/HSI
Remarks: Owned by State

HAYES CENTER (H) BVORTAC 117.7/HCT FSS: IMPERIAL

IMPERIAL RBn BH 391/IML FSS: IMPERIAL
Remarks: Owned by State

JACKSON RBn MHW 233/JKN FSS: SIOUX CITY

KEARNEY (T) BVOR 111.2/EAR FSS: GRAND ISLAND
Remarks: Owned by state.

§LINCOLN MUNI/AFB *IFR* 4NW FSS: LINCOLN on Fld
1198 H129/17R–35(3) *(Max–15) BL6,8A,9,11 S5 F5,JP1 **RVV:** Rnwy 35L **REIL:** Rnwy 17R
Remarks: Rnwy 14–32 open days VFR tfc only. Rnwy 14 threshold displaced 750′ SE. Rnwy 17R–36L 1000′ asphalt each end. Ctn-jet tfc. *Rnwy 17L–35R (S31, T50, TT87).
Tower 118.5 122.5R **Gnd Con** 121.9
App Con 124.8 109.9T
ILS 109.9 I–LNK Apch Brg 351° **LOM:** 385/LN
(L) BVORTAC 116.0/LNK
RBn MHW 385/LN
Remarks: LOM is MHW. Radar vectoring service provded IFR acft by Chicago ARTCC on 124.8

McCOOK (L) BVOR 110.0/MCK FSS: NORTH PLATTE
Remarks: Owned by State.

NORFOLK (L) BVOR 109.6/OFK FSS: OMAHA

NORTH PLATTE (L) BVORTAC 117.4/LBF FSS: NORTH PLATTE
RBn H–SAB 224●/LBF

OMAHA
§EPPLEY AIRFIELD *IFR* 3NE FSS: OMAHA on Fld
983 H85/14–32(2) (S–100, T–184, TT–346) BL4,8A,9,11,12 S5 F5,JP1,JP4 TP1 **RVR:** Rnwy 14. **REIL:** Rnwy 35.
Remarks: U.S. Customs lndg rgts arpt. 1399′ (2549′ MSL) twr 6.5 NM W.
Omaha Tower 119.1 126.2 122.5R **Gnd Con** 121.9
ATIS:[3] 110.3
Radar Services: (BCN)
Omaha App Con 120.1 125.7 122.5R 116.3T[2]
Omaha Dep Con 124.5 118.0 122.5R[2]
Tfc Info Ctc App Con on 120.1.
ILS[1] 110.3 I–OMA Apch Brg 136° **LOM:** 320/OM
Omaha (H) BVORTAC 116.3/OMA 310° 10.2 NM to rnwy 32
Omaha RBn H–SAB 320●/OM 136° 4.1 NM to rnwy 14.
Remarks: [1]BC unusable beyond 16 NM. [2]Freqs for Shenandoah, Iowa. [3]Opers 0600–2300. LOM is H–SAB.

O'NEILL (H) BVORTAC 113.9/ONL FSS: GRAND ISLAND

NEVADA

PAWNEE CITY (H) BVORTAC 112.4/PWE **FSS:** LINCOLN

SCOTTSBLUFF (H) BVORTAC 112.6/BFF **FSS:** SCOTTSBLUFF
RBn MHW[1] 341/BFF
Remarks: [1]Operd by State.

SIDNEY (H) BVOR 115.7/SNY **FSS:** SIDNEY

WOLBACH (H) BVORTAC 114.7/OBH **FSS:** GRAND ISLAND

BATTLE MOUNTAIN (H) BVORTAC 112.2/BAM **FSS:** ELKO

BEATTY (H) BVORTAC 114.7/BTY **FSS:** TONOPAH

BOULDER CITY (H) BVORTAC 116.7/BLD **FSS:** LAS VEGAS

COALDALE (H) BVORTAC 117.7/OAL **FSS:** TONOPAH

CURRANT (L) BVOR 113.4/URR **FSS:** ELY

ELKO (L) BVORTAC 114.5/EKO **FSS:** ELKO
RBn SBH 391/EKO

ELY (L) BVOR 110.6/ELY **FSS:** ELY

HAZEN (L) BVORTAC 114.1/HZN **FSS:** LOVELOCK

INDIAN SPRINGS RBn HW 215/INS

LAS VEGAS
§McCARRAN ***IFR*** 5S **FSS:** LAS VEGAS on fld.
2171 H125/7-25(3) (S–100, T–200, TT–380) BL4,6,10 S5 F5, TP1,JP4,JP5 U2 DT2 **VASI:** Rnwy 25
Remarks: Rnwy 7 threshold displaced 750'W end. 11,795' avbl lndg rnwy 7 and tkof rnwy 25 day/ngt. 12545' avbl lndg rnwy 25 and tkof rnwy 7 day/ngt. Rnwy 1 threshold displaced 625' SW end. 6878' avbl lndg rnwy 1 and tkof rnwy 19 day/ngt. 7503' avbl lndg rnwy 19 and tkof rnwy 1 day/ngt. Rnwy 32 threshold displaced 379' SE end. 4400' avbl tkof rnwy 32 day only. 4021' avbl tkof rnwy 32 ngt only. 4400' avbl lndg rnwy 14 day only. 4021' avbl lndg rnwy 14 ngt only. 4021' avbl tkof rnwy 14 day/ngt.
Tower 118.3 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Las Vegas App Con 121.1 120.1 122.5R 116.9T
Las Vegas Dep Con 119.4
Tfc Info Ctc App Con 30 mi out on 121.1.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571.
Rnwy 19 Ceil 500 Vsby 1 mi Min Alt 2671
Las Vegas (H) BVORTAC 116.9/LAS on fld.
Las Vegas RBn H–SABZ 206●/LAS 196° 8.5 NM to rnwy 19.

LOVELOCK (L) BVORTAC 116.5/LOL **FSS:** LOVELOCK

MERCURY RBn HW 326/MCY

MINA (L) BVOR 113.1/MVA **FSS:** TONOPAH

MORMON MESA (L) BVORTAC 114.3/MMM **FSS:** LAS VEGAS

MOUNT MOSES (L) BVORTAC 117.5/MMO **FSS:** LOVELOCK

§RENO MUNI ***IFR*** 2SE **FSS:** RENO on Fld
4411 H90/16–34(2) (S–100, T–160, TT–250)* BL6,8A,9 S5 F5, JP1, JP5 U2 DT2
Remarks: *Rnwy 7–25 (S–100, T–200, TT–350).
Tower 118.3 122.5R 278T **Gnd Con** 121.9
App Con 119.2 117.9T 122.5R 351T
ILS 109.3 I–RNO Apch Brg 162° **LMM:** 351/RNO
(H) BVORTAC 117.9/RNO 229° 5.1 NM to fld
RBn MHW 351/RNO 161° 2.3 NM to fld.
Remarks: LMM is MHW.

SOD HOUSE (L) BVOR 114.3/SDO **FSS:** LOVELOCK

SPARKS RBn HW 254/SPK **FSS:** RENO

TONOPAH (L) BVORTAC 117.2/TPH **FSS:** TONOPAH

WELLS (L) BVOR 114.2/LWL **FSS:** ELKO

WILSON CREEK (H) BVOR 116.3/ILC **FSS:** CEDAR CITY

NEW HAMPSHIRE

BERLIN RBn HW 281/BML **FSS:** CONCORD
Remarks: Oper by State.

CONCORD (L) BVORTAC 112.9/CON **FSS:** CONCORD

KEENE (L) BVOR 109.4/EEN **FSS:** CONCORD
RBn MHW[1] 224/EEN
Remarks: [1]Oper by State.

LACONIA RBn MHW 400/LCI **FSS:** CONCORD
Remarks: Oper by State. (LC 524–2236)

LEBANON (L) BVOR 113.7/LEB **FSS:** LEBANON

MANCHESTER
§GRENIER FIELD (MUNI) ***IFR*** 4S **FSS:** CONCORD (LC 669–1641)
233 H70/17–35(2) (S–127, T–200, TT–400) BL5,11 S3 F4 U2 DT2 **REIL:** Rnwy 35
Remarks: Severe down drafts apch end rnwy 35 when crosswinds exist.
Grenier Tower 121.3 126.2 122.5R
ILS[2] 108.3 I–MHT Apch Brg 352° BC unusable
Manchester (L) BVORTAC 114.2/MHT 337° 4.2 NM to fld.
Manchester RBn MHW[1] 338/MHT 352° 3.5NM to fld.
Remarks: [1]Oper by State. [2]Glide slope unusable below 2000' MSL beyond 10 NM.

NASHUA RBn MHW 260/AMH **FSS:** CONCORD
Remarks: Oper by State. (LC 889–0301)

NORTH CONWAY RBn MHW 334/CWN **FSS:** CONCORD
Remarks: Oper by State.

PEMBROKE RBn MHW 251/PBR **FSS:** CONCORD
Remarks: To be in common system.

WHITEFIELD RBn MHW 272/HIE **FSS:** LEBANON
Remarks: Oper by State.

NEW JERSEY

ATLANTIC CITY
§NAFEC/ATLANTIC CITY (POMONA) ***IFR*** 9NW
FSS: MILLVILLE (LC 399–8096)
76 H100/13–31(4) (S–63, T–88, TT–160) BL4,6,8A,9 S3 F5, JP4 DT2
Remarks: Fee. Pendant 1½'' steel cable stretched across rnwy 31; ½–4'' above surface with rubber doughnuts extending 6'' above surface. Pendant may gyrate. Unlgtd frangible distance to go mrkrs every 1000' each side rnwy 13–31.
Atlantic City Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
Atlantic City App Con 124.6 122.5R 119.5 108.6T
Atlantic City Dep Con 128.4
PAR Rnwy 13 Ceil 200 Vsby ½ mi Min Alt 276
Rnwys 4,31 Ceil 300 Vsby ¾ mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I–ACY Apch Brg 128° BC unusable **LOM:** 254/AC
Atlantic City NAFEC VORTAC 111.3/XDB
Atlanta City NAFEC (L) VORTAC 108.6/ACY at NAFEC
VHF/DF Ctc twr.
Remarks: [1]400 authoriezd for rnwys 13, 17, 22, 26, 31.

BARNEGAT (L) BVOR 116.7/BGT **FSS:** MILLVILLE

CHATHAM RBn MHW 254/CAT **FSS:** NEWARK TWR

COLTS NECK (L) VORTAC 115.4/COL **FSS:** TETERBORO

COYLE (H) BVORTAC 113.4/CYN **FSS:** MILLVILLE

LAKEHURST RBn HW 396/NEL

MILLVILLE (L) BVORTAC 115.2/MIV **FSS:** MILLVILLE
RBn SBH 363/MIV

NEW JERSEY—*Continued*

§MORRISTOWN MUNI *IFR* 2E **FSS:** TETERBORO (LC JE8–2196)
187 H40/4–22(2) BL4, 6 S5 F5, JP1 U2 DT2
Remarks: Dips first 1600′ rnwy 22. Trng flts by nonbased acft prohibited. Gliders-kit, homemade and pvt fiighter type acft prohibited. Lndg fee. Turbojet operns prohibited rnwy 12; turbojet tkof prohibited rnwy 30. Vehicle tfc crossing at jct N/S txwys; manned intermittently.
Tower 118.1 122.7R **Gnd Con** 121.7
Newark App Con 120.6[2] 124.3[3] 120.6 122.7R
Newark Dep Con 119.2 127.6
Remarks: [1]Oper 0800–2300 lcl time. [2]270–089° [3]090–269°

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§NEWARK MUNI *IFR* 2 S **FSS:** TETERBORO (DL)
18 H70/4–22(2) (S–115, T–200, TT–400) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **REIL** and **VASI:** Rnwy 29 **RVR:** Rnwy 4, 22 **RVV** Rnwy 11, 29
Remarks: US Customs lndg rgts arpt. Fee. 1465′ (1520′ MSL) twr 9 NM ENE. Rgt tfc rnwy 4.
Tower 118.3 122.7R
‡Clrnc Del 121.4 **Gnd Con** 121.8
ATIS: 109.1 or 110.3 (Dep)
Radar Services: (BCN)
App Con 120.6[2] 124.3[3] 122.7R
Dep Con 119.2
Tfc Info Inbnd tfc ctc App Con on 126.2 127.6 25 mi out.
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I–EWR Apch Brg 037°. BC unusable. **LOM:** 359/EW[4]
109.1 I–ARK Apch Brg 217° **LOM:** 242/AR
RBn H–SAB 379●/EWR 058° 1.0 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Rnwy 11-maintain 700′ until passing the 2.5 mi radar fix. [2]270–089° [3]090–269° [4]LOM unusable beyond 12 mi 050–090°. **VOT:** 108.6

PALISADES PARK MHW 233/PAD

PATERSON RBn MHW 347/PNJ **FSS:** TETERBORO

ROBBINSVILLE (L)BVORTAC 115.1/RBV **FSS:** N. PHILADELPHIA

SEA ISLE (H)BVORTAC 114.8/SIE **FSS:** MILLVILLE

SOLBERG (L)BVORTAC 112.9/SBJ **FSS:** TETERBORO

SPARTA (L)BVORTAC 112.3/SAX **FSS:** TETERBORO

STILLWATER (L) BVORTAC 109.6/STW **FSS:** TETERBORO

§TETERBORO MUNI *IFR* 1 SW **FSS:** TETERBORO on Fld
7 H50/6–24(3) S–50, T–80, TT–) BL4, 8 S5 F5, JP1 DT2
Remarks: Fee. Clsd to jet and other acft over 80,000 lbs, motorless acft and uncontrolled acft activity except prior permission. Rnwy 32 clsd tkoff, Rnwy 14 clsd lndgs, nonstandard rnwy lgts avbl rnwy 14–32 on request. White lgts N edge, blue lgts S edge. P-line NE. 1465′ (1520′ MSL) twr 7.5 NM SSE.
Tower 119.5 122.5R **Gnd Con** 121.9
Radar Services:
Newark App Con 120.6 124.3
Newark Dep Con 119.2 127.6
ILS 109.3 I–TEB Apch Brg 059° BC unusable **LOM:** 219/TE

TRENTON
§MERCER COUNTY *IFR* 4 NW **FSS:** PHILADELPHIA (LC. 882–1590)
213 H52/6–24(3) S–31.5, T–51, TT–) BL4,11,12,[1] S5 F4, JP4, 5 U2 DT2 **REIL:** Rnwy 6
Remarks: Fee. P-line SW. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn. [1]1500′ apch lgt sys.
Trenton Tower 120.7 122.5R **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R 109.3T
Philadelphia Dep Con 119.0[1] 128.55[2]
ILS 111.3 I–TTN Apch Brg 056° BC unusable. **LOM:** 369/TT
Remarks: [1]270–089°. [2]090–269°.

WOODSTOWN (L)BVOR 112.8/00D **FSS:** MILLVILLE

NEW MEXICO

ALAMOGORDA RBn HWZ 375/ALM

§ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE **FSS:** ALBUQUERQUE on Fld
5352 H127/8–26(4) (S–158, T–200, TT–400) BL4, 6, 8, 10 S5 F5, JP1 JP4 U2 **VASI:** Rnwy 8 **RVR:** Rnwy 35
Remarks: Tkofs rnwys 3 and 35 limited to conventional acft no larger than DC–3.
Albuquerque Tower 118.3 126.2 122.5R 119.2
Gnd Con 121.9
Clrnc Del 119.2
ATIS: 110.3
Radar Services: (BCN)
Albuquerque App Con 124.4 134.1 126.2 123.9 121.1 122.5R 113.2T 110.3T
Albuquerque Dep Con 123.9
Tfc Info Ctc App Con 25 mi out on 121.1.
PAR[2] Rnwy 8[1] Ceil 300 Vsby 3/4 mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I–ABQ Apch Brg 350° **LOM:** 278/AB
Albuquerque (H)BVORTAC 113.2/ABQ 077° 9.6 NM to fld.
Albuquerque RBn SABH 230●/ABQ 355° 2.6 NM to fld.
Remarks: [1]500–1½ rqrd for civil jet acft. [2]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0

ANTON CHICO (L)BVOR–DME 110.0/ACH **FSS:** LAS VEGAS

CANNON (L) VORW 115.7/CVS
RBn HW 272/CVS

CARLSBAD (L)BVOR 116.3/CNM **FSS:** CARLSBAD

CIMARRON (H) BVORTAC 116.4/CIM **FSS:** TRINIDAD

COLUMBUS (L) BVORTAC 111.2/CUS **FSS:** DEMING

CORONA (L) BVOR 115.5/CNX **FSS:** ALBUQUERQUE

DEMING (L) BVOR 108.6/DMN **FSS:** DEMING

§FARMINGTON MUNI *IFR* 2 NW **FSS:** FARMINGTON of Fld
5503 H67(2) (Max–60) BL4 S5 F4 TP1 U2
Tower[1] 118.5 118.9 122.5R **Gnd Con** 121.7
(H)BVORTAC 115.3/FMN
VHF/DF Ctc FSS.
Remarks: [1]Oper 1300–0500Z.

GALLUP (H)BVORTAC 115.1/GUP **FSS:** ZUNI

GRANTS (L)BVORTAC 116.5/GNT **FSS:** GRANTS

§HOBBS, LEA COUNTY *IFR* 4 W **FSS:** HOBBS on Fld
3659 H63/3–21 (4) (S–115 T–200 TT–400) BL4, 6 S5 F4 TP1 U2
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Hobbs (L) BVOR 111.0/HOB 031° 3.5 NM to rnwy 3.

HOLLOMAN (L) VORW 115.8/HMN

LAS VEGAS (H) BVORTAC 117.3/LVS **FSS:** LAS VEGAS

OTTO (L) BVOR 114.0/OTO **FSS:** ALBUQUERQUE

PINON (L) BVOR 110.4/PIO **FSS:** EL PASO

§ROSWELL MUNI *IFR* 1 NW **FSS:** ROSWELL on Fld
3623 H58/17–35(4) (S–42, T–60, TT–110) BL4 S5 F4 JP1
Remarks: Rgt tfc rnwys 12, 17, 21, 26. Due non-vsby some areas of fld, ctc twr.

NEW MEXICO—*Continued*

Roswell Muni (Continued)
Tower[1] 118.5 122.5R **Gnd Con** 121.9
Walker App Con 120.2 122.7R
Walker Dep Con 123.8
Tfc Info Ctc Walker App Con 30 mi out at 10,000′ and below on 120.2
(H) BVORTAC 116.1/ROW 028° 5.0NM to rnwy 3.
RBn SABH[2] 305●/ROW 312° 7.9 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]Oper 1300–0500Z. [2]Oper 1200–0500Z.

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§SANTE FE COUNTY MUNI *IFR* 9 SW **FSS:** SANTA FE on Fld
6344 H83/2-20 (3) (S–45, T–60, TT–) BL4 S5 F4, JP1 U2
Tower 119.5 126.2 122.5R **Gnd Con** 121.7
(L) BVORTAC 110.6/SAF 332° 4.2 NM to fld

SOCORRO (H) BVORTAC 116.8/ONM **FSS:** ALBUQUERQUE

TAOS (L) BVOR 117.6/TAS **FSS:** SANTA FE

TRUTH OR CONSEQUENCES (H) BVORTAC 112.7/TCS
FSS: TRUTH OR CONSEQUENCES

TUCUMCARI (H) BVORTAC 113.6/TCC **FSS:** TUCUMCARI

ZUNI (L) BVORTAC 113.4/ZUN **FSS:** ZUNI

NEW YORK

§ALBANY COUNTY *IFR* 6 NW AOE **FSS:** ALBANY on Fld
288 H50/1–19 (3) (S–110, T–200, TT–400) BL4,6,8A,9,11 S5 F5, JP1 DT2 **RVV:** Rnwy 19
Remarks: Fee. Road S. Rnwy 15–33 unlgtd, clsd ngt operns and acft over 12,500 lbs.
Tower 119.5 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 125.0 124.7 122.5R 109.5T **Dep Con** 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I–ALB Apch Brg 191° **LOM:** 219/AL
(H) BVORTAC 117.8/ALB on fld.
Remarks: VOT: 109.0

ALPINE RBn MHW 245/ALP **FSS:** ELMIRA

AVON RBn MHW 344/AVN **FSS:** BUFFALO

BABYLON RBn MHW 275/BBN **FSS:** NEW YORK

BECKSGROVE RBn MHW 329/BKG **FSS:** UTICA

BINGHAMTON
§BROOME COUNTY *IFR* 7 N **FSS:** BINGHAMTON on Fld
1629 H56/16–34(2) (S–94.5, T–135, TT–) BL4, 6, 12 S5 F5, JP1 DT2 **RVV:** Rnwy 34
Remarks: Fee.
Binghamton Tower 119.3 122.5R 114.3T 109.6T
Gnd Con 121.9
Radar Services: (BCN)
Binghamton App Con 118.6 **Binghamton Dep Con** 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I–BGM Apch Brg 338° BC unusable **LMM:** 203/GM
Binghamton (L) BVORTAC 114.3/BGM 076° 7.0 NM to fld.
Binghamton RBn MHW 317/BGM 338° 6.9 NM to fld.

BUFFALO
§GREATER BUFFALO INTL *IFR* 5 E AOE **FSS:** BUFFALO on Fld
722 H81/5–23(2) (S–120, T–180, TT–400) BL4, 6, 8A, 9 11 S5 F5, JP1, JP4, JP5 DT2
Remarks: Fee.
Tower 120.5 122.5R **Gnd Con** 121.9
Clrnc Del 124.7

NEW YORK—*Continued*

Radar Services: (BCN)
Buffalo App Con 126.5 126.2 122.5R 123.7
Buffalo Dep Con 125.5
Tfc Info Inbnd acft ctc Buffalo App Con on 126.5 or 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi Min Alt 1119
Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 111.3 I–BUF Apch Brg 232° **LOM:** 219/BU
108.5 I–GBI Apch Brg 052° BC unusable **LOM:** 204/GB
Buffalo (H) BVORTAC 116.4/BUF 287° 3.6 nm to fld
Buffalo RBn BH 260/BUF 211° 0.9 nm to fld
VHF/DF Ctc App Con.
Remarks: BC unusable beyond 15 NM. **VOT:** 109.0.

CAMBRIDGE (L) BVOR 115.0/CAM **FSS:** GLENS FALLS

CANARSIE (T) VORW 111.0/CRI **FSS:** JFK TWR

CARMEL (L) BVORTAC 116.6/CMK **FSS:** TETERBORO

DEER PARK (L) VORTAC 111.2/DPK **FSS:** NEW YORK

DE LANCEY (L) BVOR 112.1/DNY **FSS:** BINGHAMTON

DUNKIRK (L) BVOR 114.2/DKK **FSS:** BUFFALO

ELMIRA
§CHEMUNG COUNTY *IFR* 5 NW **FSS:** ELMIRA on Fld
951 H56/6–24(3) (S–42, T–69, TT–120) BL5, 6, 8A, 9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 24
Elmira Tower 121.1 122.5R **Gnd Con** 121.9
Elmira App Con 121.1 118.95 122.5R 120.0[1]
ILS 109.1 I–ELM Apch Brg 239° BC restricted
Elmira (L) BVORTAC 113.7/ELM 066° 6.6NM to fld.
Elmira RBn SABH 375●/ELM 076° 1.3NM to fld.
Remarks: [1]For IFR acft operg Tompkins Co Arpt, Ithaca, N.Y.

GENESEO (L) BVORTAC 108.2/GEE **FSS:** BUFFALO

GEORGETOWN (L) BVOR 115.2/GGT **FSS:** UTICA

GLENS FALLS (L) BVORTAC 110.2/GFL **FSS:** GLENS FALLS

HAMPTON (H) BVORTAC 113.6/HTO **FSS:** NEW YORK

HANCOCK (L) BVORTAC 109.0/HNK **FSS:** BINGHAMTON

HUGUENOT (H) BVORTAC 116.1/HUO **FSS:** WILKES-BARRE

ISLIP
§LONG ISLAND—MacARTHUR *IFR* 7 NE **FSS:** NEW YORK on Fld
98 H50/6–24(3) (S–60, T–80, TT–) BL4, 6, 7, 12 S5 F5, TP1 DT2 **RVV:** Rnwy 6
Tower 119.3 126.2 122.5R 108.3T **Gnd Con** 121.7
Radar Services:
Kennedy App Con 118.0 134.1 123.7 122.7R 118.4
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
ILS 108.3 I–ISP Apch Brg 057° **LOM:** 366/IS
VHF/DF: Ctc FSS.
Remarks: [1]054–110°. [2]110–160°.

ITHACA (L) BVOR 111.8/ITH **FSS:** ELMIRA

JAMESTOWN (L) BVOR 113.1/JHW **FSS:** BRADFORD (DL

KINGSTON (L) BVOR 117.6/IGN **FSS:** POUGHKEEPSIE

MASSENA (H) BVORTAC 114.1/MSS **FSS:** MASSENA

NEWBURGH STEWART AFB (L) VOR 110.8/SWF
RBn MHW 335/SWF

NEW YORK
§JOHN F KENNEDY INTL *IFR* 11 SE **FSS:** NEW YORK (DL
12 H146/13R–31L(6) (S–100, T–185, TT–340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 U2 DT2 **VASI:** Rnwys 13L, 13R, 22R, 31L.
RVR: Rnwys 4R, 22L, 31L, 31R **REIL:** Rnwy 13L[1]

NEW YORK—*Continued*

John F Kennedy Intl (Continued)

Remarks: Fee. U.S. Customs lndg rgts arpt. Clsd to fighter-type, jet and turboprop acft excp with prior approval and to routine mill tfc. Rnwy 13R–31L, 14,572′ with lndg threshold 13R displaced 2600′ 31L displaced 3320′. Rnwy 22R threshold displaced 3022′. Rnwy 13L threshold displaced 985′ rnwy 31R threshold displaced 1024′. 1465′ (1520′ MSL) twr 11 NM NW. [1]Non-standard. Lead in lgts rnwy 13L and 13R.

Kennedy Tower 119.1 134.1 122.7R 110.9T 109.5T
‡Clrnc Del 121.65 **Gnd Con** 121.9
ATIS ARR (NE) 111.2 (SW) 115.4 DEP 112.5
Radar Services: (BCN)
Kennedy App Con 127.4 134.1 135.35 123.7 122.7R 118.4 109.5T
Kennedy Dep Con 123.9[1] 134.1 121.1[2]
Tfc Info: Expanded radar service avbl.
PAR Rnwy 4R Ceil 200 Vsby ½ Min Alt 212.
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612.
Rnwys 31L 22R 31R Ceil 500 Vsby 1 mi Min Alt 512.
ILS 109.5 I–JFK Apch Brg 042° **LOM:** 373/JF[3]
110.9 I–IWY Apch Brg 222° **LOM:** 226/IW
111.5 1–RTH Apch Brg 311° BC unusable. **LOM:** 268/RT
Kennedy (H) BVORTAC 115.9/JFK on fld.
Kennedy RBn MHW 373/JF 042° 2.7 NM to rnwy 4R.
VHF/DF Ctc twr.
Remarks: [1]054–110°, [2]110–160°. [3]LOM is MHW. **VOT:** 112.5.

§LA GUARDIA *IFR* 4E **FSS:** TETERBORO (DL)
21 H70/4–22(2) S–80, T–105, TT–105) BL6, 8A, 9, 10, 11 S5 F5, JP1 U2 DT2 **VASI:** Rnwys 13, 22, 31 **RVV:** Rnwy 4
REIL: Rnwy 13–31, 22

Remarks: Fee. U.S. Customs lndg rgts arpt. Rnwy threshold displaced 173′ NW. 5813′ avbl nldg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. 1465′ (1520′ MSL) twr 5 NM WSW. Mag anomalies may affect compass heading when using extensions rnwys 13 and 22 for tkof.

FAA Dep Proc: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.

Tower 118.7 122.7R 109.9T 108.5T 110.5T
‡Clrnc Del 126.15 **Gnd Con** 121.7
ATIS: (Arr) 113.1 -
Radar Services: (BCN)
App Con 125.7 122.7R 118.9 109.9T 108.5T 110.5T
Dep Con 120.4 128.8
Tfc Info All VFR tfc inbnd ctc App Con West of Hudson River 125.7, East of Hudson River 118.9
PAR [4]Rnwy 4 Ceil 400 Vsby ¾ mi Min Alt 421
Rnwy 22 Ceil 200 Vsby ½ mi Min Alt 221
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621.
ILS 109.9 I–LGA[1] Apch Brg 043° BC unusable **LOM:** 332/LG
108.5 I/GDI[2] Apch Brg 134° [5]**LOM:** 233/PAD
110.5 I–URD[3] Apch Brg 223° BC unusable **LOM:** 385/UR
La Guardia (L) VOR–DME 113.1/LGA 177° 0.4 NM to fld
Palisade Park MHW 233/PAD
VHF/DF Ctc App Con.

Remarks: Flwg shut down indef due constr: Rnwy 4 ILS. [1]Lclzr unusable below 2000′ MSL beyond 17 NM. LOM subject to 30° oscillations in W quad. Glide slope crs deviation may be encountered due to acft movements in close proximity to glide slope transmitter when wea conditions are 1000–3 or better. [2]Front crs unusable beyond 15 NM below 2500′. BC unusable beyond 15 NM below 3000′. [3]LOM unusable beyond 9 NM between 235–245° acct erroneous needle action. [4]Radar monitoring of instrument apchs only at pilot's request. [5]LOM is Palisades Park MHW. **VOT:** 109.0.

NEW YORK—*Continued*

§NIAGARA FALLS MUNI *IFR* 4 E **FSS:** BUFFALO (DL)
590 H91/10L–28R(4) (S–90) BL4, 6, 8A, 9 S3 F5 JP4 DT2
RVR: Rnwy 28

Remarks: U.S. Customs lndg rgts arpt. No signal SS–SR to indicate IFR conditions less than 3 mi and/or ceil less than 1000′.

Niagara Tower 118.5 126.2 122.7R 110.1T **Gnd Con** 121.7
Radar Services:
Buffalo App Con 123.7 126.2 122.5R 126.5
Buffalo Dep Con 125.5
ILS 110.1 I–IAG Apch Brg 278° BC unusable **LOM:** 329/IA
VHF/DF Ctc twr.

OGDENSBURG RBn MHW 203/OGS **FSS:** MASSENA

OLEAN RBn MHW 360/LYS **FSS:** BRADFORD
Remarks: Oper 1200–0300Z.

PECONIC RBn MHW 339/PIC **FSS:** NEW YORK

PLATTSBURGH (H) BVORTAC 117.4/PLB **FSS:** MONTPELIER
RBn MHW 385/PBG

POUGHKEEPSIE (L) BVORTAC 112.2/POU **FSS:** POUGHKEEPSIE

RIVERHEAD (L) VORTAC 117.2/RVH **FSS:** NEW YORK

§ROCHESTER-MONROE CO *IFR* 3 SW AOE
FSS: BUFFALO
560 H70/4–22(5) (S–126, T–160, TT—265) BL5, 6, 8A, 9, 14, 15 S5 F4, JP1 U2 DT2 **RVR:** Rnwy 28.

Remarks: Rnwy 30 threshold displaced 690′ NW. 2351′ avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal SS–SR to indicate IFR conditions.

Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
App Con 124.0 120.7 122.5R
Dep Con 121.0
Tfc Info Ctc App Con on 124.0
ASR Rnwy 1 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 4 Ceil 700 Vsby 1 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 mi Min Alt 960.
Rnwy 19, 22 Ceil 600 Vsby 1 mi Min Alt 1160
Rnwy 28 Ceil 500 Vsby 1 mi Min Alt 1060.
ILS[1] 109.5 I–ROC Apch Brg 277° BC unusable **LOM:** 400/RO
110.7 [2]I–MCU Apch Brg 040°
Rochester (L) BVORTAC 110.0/ROC at fld.
Remarks: [1]Glide slope unusable below 760′ due crs roughness. [2]BC unusable beyond 10 NM.

ROCKDALE (L) BVOR 112.6/RKA **FSS:** BINGHAMTON

ROME RBn HW 212/RME

SARANAC LAKE (L) BVOR 111.2/SLK **FSS:** MASSENA

§SCHENECTADY COUNTY *IFR* 2 N **FSS:** ALBANY (DL)
378 H70/4–22(3) (S–52) BL4, 6 S5
F5, JP5 DT2

Remarks: Lgts prior req after 0400Z. First 100′ apch end rnwy 10 not visible from ctl twr.

Tower[1] 121.3 126.2 122.5R 356T
Radar Services:
Albany App Con 125.0 124.7 122.5R 109.5R
Albany Dep Con 125.2
Schenectady RBn MH 356/SCH
VHF/DF Ctc twr.
Remarks: Opers 1200–0400Z.

SYRACUSE

§HANCOCK *IFR* 4 NE **FSS:** SYRACUSE on Fld
421 H90/10–28(3) (S–120, T–190, TT–350) BL4, 6, 8A, 9, 14 S5 F5, JP4 DT2 **RVV:** Rnwy 28

NEW YORK—*Continued*

Hancock (Continued)
Remarks: U.S. Customs lndg rgts arpt. Rnwy 6–24 limited to acft under 12,500 lbs GWT.
Syracuse Tower 119.9 122.5R **Gnd Con** 121.7
Radar Services (BCN)
Syracuse App Con 120.3 122.5R 109.9T
Syracuse Dep Con 124.6
ASR Rnwy 14 Ceil 400 Vsby 1 mi Min Alt 821.
Rnwy 10 Ceil 500 Vsby 1 mi Min Alt 921.
Rnwy 28 Ceil 700 Vsby 1 mi Min Alt 1121
ILS 109.9 I–SYR Apch Brg 278° **LOM:** 242/SY
Syracuse (H) BVORTAC 117.0/SYR 131° 4.7 NM to fld.
Syracuse RBn SBH 350/SYR 100° 6.7 NM to fld.

UTICA
§ONEIDA COUNTY ***IFR*** 7 NW **FSS:** UTICA on Fld
742 H60/15–33(2) (S–60, T–80, TT) BL4, 6, 8A, 9 S5
F2 U2 DT2 **RVV:** Rnwy 33.
Utica Tower 118.1 122.7R 109.3T **Gnd Con** 121.9
Radar Services: (BCN)
Griffiss App Con 118.5 134.1 122.7R
Griffiss Dep Con 120.9
ILS 109.3 I–UCA Apch Brg 329° **LMM:** 254/CA
Utica (L) BVOR 108.6/UCA 318° 11.6 NM to fld.
Utica RBn MHW 275/UTI 329° 7.3 NM to fld.

WATERTOWN (L) BVOR 109.8/ART **FSS:** WATERTOWN

WELLSVILLE (L) BVOR 116.0/ELZ **FSS:** ELMIRA

WHITE PLAINS
§WESTCHESTER COUNTY ***IFR*** 3NE **FSS:** NEW YORK
439 H65/16–34(3) (S–63, T–110, TT–275) BL4, 8A, 9 S5
F5, JP5 U2 DT2
Remarks: Fee. Rnwy 5 clsd ngt lndgs, rnwy 23 ngt tkofs. First 400′ rnwy 23 not visible to twr.
Tower 119.7 126.2 122.5R 109.7T **Gnd Con** 121.9
App Con 121.2 122.5R 109.7T
ILS 109.7 I–HPN Apch Brg 162° BC unusable **LOM:** 281/HP

NORTH CAROLINA

§ASHEVILLE MUNI ***IFR*** 9 S **FSS:** GREER (LC 684–4401)
2161 H65/16–34(1) (S–100, T–160, TT–275) BL6,8A,9,10 S5
F5, JP1, JP4 U2 **VASI:** Rnwy 16 **RVV:** Rnwy 34.
Remarks: Rgt tfc NW.
Tower 121.1 122.5R **Gnd Con** 121.9
App Con 125.3 122.5R
ILS[1] 110.5 I–AVL Apch Brg 341° BC restricted, unusable for apchs. **LMM:** 227/VL
(L) BVORTAC 112.2/AVL 279° 13.4 NM to fld
RBn MHW 357/ABN 160° 5.8 NM to fld
Remarks: [1]Glide slope unusable below 2310′ MSL.

BROAD RIVER RBn HW 379/BRA **FSS:** ASHEVILLE

CAROLINA BEACH RBn HW 216/CLB **FSS:** WILMINGTON

CHARLOTTE
§DOUGLAS MUNI ***IFR*** 4 W **FSS:** HICKORY (LC 332–8161)
748 H78/18–36 (2) (S–60, T–150, TT–240) BL6, 8A, 9 S5
F5, JP1 U2 **RVR:** Rnwy 5
Remarks: 1073′ (1932 MSL) twr 10 NM ENE. 1071′ (1871′ MSL) twr 10.5 NM ENE. Rnwy 18 threshold displaced 600′. Lndg fee for commercial acft.
Charlotte Tower 118.1 126.2 122.5R 109.5T **Gnd Con** 121.9
ATIS 110.6
Radar Services: (BCN)
Charlotte App Con 120.5 126.2 122.5R 119.0 109.5T
Charlotte Dep Con 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 mi Min Alt 1148

NORTH CAROLINA—*Continued*

ILS[2] 109.5 I–CLT Apch Brg 050° BC unusable **LOM:** 242/CL
Charlotte (L)VORTAC 110.6/CLT on fld
Remarks: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Glide slope unusable below 948′ MSL. **VOT:** 112.0.

COFIELD (L) BVORTAC 114.4/CVI **FSS:** ELIZABETH CITY

ELIZABETH CITY (L) BVOR 109.4/ECG **FSS:** ELIZABETH CITY

FAYETTEVILLE
§GRANNIS FIELD ***IFR*** 3 S **FSS:** FAYETTEVILLE on Fld
189 H50/3–21(2) (S–64, T–120, TT–200) BL4,6,8A,9 S5 F4, JP4, U-2
RVV: Rnwy 3
Fayetteville Tower 118.3 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Fayetteville App Con 120.6
Fayetteville Dep Con 120.4
ILS[1] 110.5 I–GRA Apch Brg 035° BC unusable **LOM:** 367/GR
Fayetteville (L) BVOR 108.8/FAY on fld.
Remarks: [1]Lclzr usable area restricted to 35° either side from crs. All other areas unusable.

FORT BRAGG, POPE AFB (L) VORW 113./POB

FORT BRAGG, SIMMONS AAF (L) VOR 109.8/FBG
RBn MH 201/FBG

§GREENSBORO-HIGH POINT/WINSTON-SALEM ***IFR*** 7 W
FSS: RALEIGH (LC BR 56341)
926 H64/14–32(2) (S–40, T–140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 **RVV:** Rnwy 14
Remarks: Rnwy 5 threshold displaced 290′.
Greensboro Tower 119.1 126.2 122.5R 109.9T
Gnd Con 121.9
Radar Services: (BCN)
Grensboro App Con 118.5 122.5R 120.9 116.2T 109.9T
Greensboro Dep Con 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1326
ILS[1] 109.9 I–GSO Apch Brg 138° **LOM:** 254/GS
Greensboro (H) BVORTAC 116.2/GSO 030° 3.0 NM to fld.
Remarks: [1]Glide slope unusable below 1127′ MSL.

HICKORY (L) BVOR 110.8/HKY **FSS:** HICKORY

KINSTON (L) BVORTAC 109.6/ISO **FSS:** NEW BERN

LIBERTY (L) BVOR 111.2/LIB **FSS:** RALEIGH-DURHAM

LUMBERTON RBn MHW 359/LBT **FSS:** FLORENCE
Remarks: Operd by city; VFR use only.

NEW BERN (L) BVOR 108.4/EWN **FSS:** NEW BERN

PINEHURST (L) BVORTAC 111.8/SOP **FSS:** FAYETTEVILLE

§RALEIGH-DURHAM ***IFR*** 9 NW **FSS:** RALEIGH on Fld
435 H75/5–23(3) (S–110, T–160, TT–270) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 5
Remarks. No signal btn SS–SR indicate gnd vsby of less than 2.6 NM and or ceil less than 1000′.
Tower 119.3 126.2 122.5R 109.5T **Gnd Con** 121.9
Radar Services: (BCN)
Raleigh App Con 125.3 120.6 122.5R
Raleigh Dep Con 120.6 124.8
Tfc Info Inbnd acft ctc App Con 25 mi out on 125.3
ILS[1] 109.5 I–RDU Apch Brg 049° **LOM:** 382/RD
(H) BVORTAC 117.2/RDU at fld.
RBn H–SAB 350●/RDU 229° 4.0 NM to fld.
Remarks: [1]Glide slope unusable below 633′ MSL.

ROCKY MOUNT (L) BVORTAC 117.8/RMT **FSS:** ROCKY MOUNT

SEYMOUR-JOHNSON AFB (L) VOR 116.5/GSB
RBn MHW 285/GSB
ILS[1] 109.3 I–GSB Apch Brg 078° BC unusable **LOM** 285/GSB
Remarks: LOM is MHW. [1]Glide slope unusable below 270′

NORTH CAROLINA—*Continued*

WEEKSVILLE RBn (HW) 254/EKV FSS: ELIZABETH CITY

WILMINGTON

§NEW HANOVER CO *IFR* 2 NE FSS: NEW BERN (LC 762–7567)

31 H80/5–23(3) (S–90, T–120 TT–212) BL4, 6, 8A, 9 S5 F5, JP5 **RVR:** Rnwy 34.

Remarks: Rnwy 27 threshold displaced 800′ W. Usable length rnwy 27 lndg 3327′; tkof 4127′. Rnwy 9–4127′ lndg; 3327′ tkof. Due non-vsby some areas of fld, ctc twr.

Wilmington Tower 119.9 122.5R 110.3T 388T **Gnd Con** 121.9

Clrnc Del 121.9.

Wilmington App Con 118.8 122.5R 110.3T

ILS[1] 110.3 I–ILM Apch Brg 343° **LOM:** 281/IL

Wilmington (H) BVORTAC 117.0/ILM 201° 5.0 NM to fld.

Remarks: [1]Glide slope unusable below 223′.

WINSTON–SALEM

§SMITH REYNOLDS *IFR* 2NE FSS: HICKORY

969 H66/15–33(3) (S–40, T–85, TT–105)* BL4, 6, 8A, 9, 12 S5 F5, JP5 U2 **RVV:** Rnwy 33.

Remarks: Apch lgts oper 0700–2300 only. Rnwy lgts 15–33 only oper 2300–0700. *Rnwy 3–21 (S–56, T–85, TT–105)

Winston-Salem Tower[1] 118.7 126.2 122.7R 278T

Gnd Con 121.7

Radar Services: (BCN)

Greensboro App Con 118.5 122.5R 120.9 109.9T

Greensboro Dep Con 124.6

ILS[2] 110.3 I–INT Apch Brg 328° BC unusable **LOM:** 317/IN

Remarks: [1]Oper 1200–0400Z. [2]Glide slope unusable below 1069′ MLS. ILS monitored only by electronic means 2300–0700 EST daily.

NORTH DAKOTA

§BISMARCK MUNI *IFR* 2 SE FSS: BISMARCK on Fld

1677 H69/12–30(3) (S–78, T–114, TT–190) BL4, 6, 8 S5 F4 JP4 U2 **RVV:** Rnwy 30

Remarks: Rnwys 17–35, 2–20 and E–W txwy clsd to acft over 26,000 lbs excp when authorized by twr. First 800′ rnwy 12 clsd to lndg acft. Rnwy 2 threshold displaced 530′ SW end. Rnwy 12 threshold displaced 817′ NW end.

Tower 118.3 122.5R **Gnd Con** 121.9

App Con 118.3

ILS 110.3 I–BIS Apch Brg 306° **LOM:** 215/BI

(L) BVORTAC 116.5/BIS 272° 3.6 NM to fld

RBn BH 230/BIS 252° 1.9 NM to fld

DEERING (H) VOR 115.7/MIB

DEVILS LAKE (L) BVOR 111.0/DVL FSS: GRAND FORKS

DICKINSON (H) BVORTAC 112.9/DIK FSS: DICKINSON

RBn BH[1] 308/DIK

Remarks: [1]VFR use only.

FARGO

§HECTOR FIELD *IFR* 2NW FSS: JAMESTOWN

900 H91/17–35(3) (S–90, T–120, TT) BL4,6, 8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwys 17, 35 **RVR:** Rnwy 35

Fargo Tower 118.3 122.5R **Gnd Con** 121.9

Fargo App Con 125.8 110.3T

VFR ADV Ctc App Con 25 mi out on 125.8

ILS 110.3 I–FAR Apch Brg 351° **LOM:** 219/FA

Fargo (H) VORTAC 116.2/FAR 360° 9.4NM to fld

Fargo RBn BH 365/FAR 171° 4.6NM to fld

GRAND FORKS (L) BVOR 109.4 GFK FSS: GRAND FORKS

JAMESTOWN (L) BVOR 114.5/JMS FSS: JAMESTOWN

NORTH DAKOTA—*Continued*

MINOT (L) BVOR 117.1/MOT **FSS:** MINOT

Remarks: To be BVORTAC Jan 27, 1967.

PEMBINA (H) BVORTAC 112.4/PMB FSS: GRAND FORKS

RED RIVER (H) VOR 116.7/RDR

RBn H 400/RDR

WILLISTON (L) BVOR 116.3/ISN **FSS:** MINOT

OHIO

§AKRON MUNI *IFR* Adj SE AOE **FSS:** AKRON on Fld

1059 H53/7–25(4) BL4, 6, 11 S5 F5 JP1 U2 DT2

REIL: Rnwys 7 and 25.

Remarks: Poles E. Rnwy 25 threshold displaced 511′ SW.

Tower 120.1 122.7R 110.9T **Gnd Con** 121.9

Radar Services:

Akron-Canton App Con 125.5 126.2 122.5R 109.5T

Akron-Canton Dep Con 118.6

ILS 110.9 I–AKR Apch Brg 246° **LOM: 362/AKR**

(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld

RBn MHW 362/AKR 246° 3.7 NM to fld.

Remarks: LOM is MHW.

§AKRON-CANTON *IFR* 10SE **FSS:** AKRON

1228 H56/1–19(4) (S–120, T–160, TT–259) BL5,6,8A,9,11 S5 F4, JP1 DT2 **RVR:** Rnwy 1 **REIL:** Rnwy 23

Remarks: U.S. Customs lndg rgts arpt. Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.

Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.7

Radar Services: (BCN)

App Con 125.5 126.2 122.5R 109.5T

Dep Con 118.6

ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400 Vsby 1 mi Min Alt 1628

ILS 109.5 I–CAK Apch Brg 006° **LOM:** 233/CA

Remarks: VOT: 115.4.

APPLETON (H) BVORTAC 116.7/APE **FSS:** COLUMBUS

ATHENS RBn MHW 206/UOA **FSS:** PARKERSBURG

ATTICA (L) BVORTAC 116.9/ATO **FSS:** MANSFIELD

BELLAIRE (L) BVORTAC 111.0/AIR **FSS:** WHEELING

BRECKSVILLE RBn MHW 326/BKI **FSS:** CLEVELAND

BRIGGS (L) BVORTAC 112.4/BSV **FSS:** AKRON

CHARDON (L) BVORTAC 109.8/CXR **FSS:** CLEVELAND

COVINGTON, KY. (CINCINNATI, OHIO)

§GREATER CINCINNATI *IFR* 9SW Cincinnati **FSS:** CINCINNATI

890 H86/18–36(2) (S–179, T–283, TT–500) BL4,6,8A,9,11 S5 F5 **REIL:** Rnwy 27 **RVR** Rnwy 18–36

Remarks: Fee. Twr unable to see various portions of fld.

Cincinnati Tower 118.3 126.2 122.7R **Gnd Con** 121.7

Clrnc Del 121.3

ATIS 112.9

Radar Services:

Cincinnati App Con 124.7 119.7 126.2 122.7R

Cincinnati Dep Con 121.0

ASR Rnwys 9, 18, 36 Ceil 400 Vsby 1 mi Min Alt 1290. Rnwys 27 Ceil 700 Vsby 1 mi Min Alt 1590

ILS 109.9 I–CVG Apch Brg 360° **LOM:** 287/CV

111.5 I–SIC Apch Brg 180° **LOM:** 351/SI

Cincinnati (L) VORTAC 112.9/CVG 043° 2.3 NM to fld

VHF/DF Ctc twr or radar.

Remarks: VOT: 108.4.

OHIO—*Continued*

§**CINCINNATI MUNI-LUNKEN FLD** ***IFR*** 3SE **FSS:** CINCINNATI on Fld
488 H61/2R–20L(4) (S–55, T–75 TT–167) BL4,6,8A,9 S5 F4, JP4 U2
Remarks: U.S. Customs lndg rgts arpt. Rnwy 2L threshold displaced 189′ NE. 4795′ avbl lndg rnwy 2L; tkoff rnwy 20R. 4984′ avbl lndg 20R; tkoff rnwy 2L. Rnwy 15 threshold displaced 701′ SE. 3331′ avbl lndg rnwy 15; tkoff rnwy 33. 4032′ avbl tkoff rwy 15, lndg rnwy 33.
Lunken Tower 118.7 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Cincinnati App Con 119.7 126.2 124.7 122.7R
Cincinnati Dep Con 121.0
ILS[1] 110.9 I–LUK Apch Brg 201°
Cincinnati Rng SABRAZ[2] 335/LUK 227° 4.3 NM to fld
Remarks: [1]Glide slope unusable beyond 11 NM below 2700′ MSL. BC unusable beyond 10 NM. [2]Reliable reception distance 60 NM.

CLEVELAND

§**BURKE LAKEFRONT** Adj N **FSS:** CLEVELAND (DL)
584 H52/6–24(1) (S–31, T–37, TT–55) BL 6 S5 F4, JP1 U2 DT2
Remarks: U.S. Customs lndg rgts arpt. Fee. Rgt tfc rnwy 24.
Lakefront Tower[3] 120.9 126.2 122.5R **Gnd Con** 121.9
Radar Services
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Remarks: [1]270°–089° [2]090°–269° [3]Oper 1100–0300Z.

§**CLEVELAND-HOPKINS INTL** ***IFR*** 9SW AOE **FSS:** CLEVELAND on Fld
792 H90/5R–23L(5) (S–54, T–78, T–126)* BL4,6,8A,9,10,11 S5 F5, JP1 U2 DT2 **VASI:** Rnwy 23R **RVR:** Rnwy 5R, 27
REIL: Rnwy 36L.
Remarks: *(S-125, T–188, TT–338) avbl rnwy 9–27. Rnwy 23L apch restricted by fence. Rnwy 18L threshold displaced 493′S. 4522′ avbl lndg rnwy 18L; tkof rnwy 36R. 5015′ avbl lndg 36R, tkof rnwy 18L.
Cleveland Tower 119.9 126.2 122.7R **Gnd Con** 121.7
‡**Clrnc Del** 127.4
ATIS 112.0[5]
Radar Services: (BCN)
Cleveland App Con 124.0[1] 122.7R 118.5[2] 124.5[6] 110.7T 109.9T **Cleveland Dep Con** 121.0 124.5[6]
ASR Rnwys 5L, 18L, 23R, 36R Ceil 500 Vsby 1½ mi Min Alt 1292.
Rnwys 5R, 9, 18R, 23L[4], 27, 36L Ceil 400 Vsby 1 mi Min Alt 1192.
ILS 109.9 I–CLE Apch Brg 055°
110.7 I–CEE[3] Apch Brg 278°
Cleveland (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld
Cleveland RBn H–SAB 344●/CLE 070° 0.8 NM to fld
VHF/DF Ctc twr
Remarks: [1]270°–089° [2]090°–269°. [3]ILS unusable below 1030′ MSL due lclzr crs roughness. [4]Apch maintain at least 1600′ until within 4 mi rnwy. [5]1000–0200Z. [6]For Cuyahoga County Arpt. **VOT:** 110.4.

CLINTON (T) VOR 113.2/ILN
RBn MHW 219/ILN

COLUMBUS, OHIO STATE UNIVERSITY RBn MHW 348/OSU

§**COLUMBUS, PORT COLUMBUS INTL** ***IFR*** 6E AOE **FSS:** COLUMBUS on Fld
816 H107/10R–28L(5) (S–100, T–200, TT–370)* BL4,6,8A,9,11 S5 F5, JP1, JP4 U2 **RVR:** Rnwys 10L, 28L **REIL:** Rnwys 10R, 28R.
Remarks: *Rnwy 10L–28R (S–180, T–200, TT–400). Due non-vsby some areas of fld, ctc twr.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.9
Clrnc Del 121.3
Radar Services: (BCN)

OHIO—*Continued*

App Con 119.0 126.2 125.4 122.5R 109.5T
Dep Con 120.5 126.2
ASR Rnwys 10R, 10L, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316.
Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416.
ILS[1] 109.1 I–CBP Apch Brg 096° **LOM:** 271/CB
109.5 I–CMH[1] Apch Brg 276° **LOM:** 245/CM
RBn BH 391/CMH 070° 1.0 NM to fld
VHF/DF Ctc twr.
Remarks: [1]Front crs unusable above 4000′ MSL beyond 11 NM. **VOT:** 111.0

CUYAHOGA RBn MHW 275/CUC **FSS:** CLEVELAND

DAYTON

§**JAMES M COX-DAYTON MUNI** ***IFR*** 9N **FSS:** DAYTON on Fld
1008 H70/6–24(2) (S–126, T–170, TT–354) BL4,6,8A,9,11 S5 F5, JP1 U2 **RVV:** Rnwy 6 **REIL:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt. P-line SE. 1096′ twr 10NM S.
Dayton Tower 119.5 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 125.2
Radar Services: (BCN)
Dayton App Con 118.0 126.5 122.7R 111.6T 110.3T
Dayton Dep Con 125.9 119.9
ILS[1] 110.3 I–DAY Apch Brg 056° **LOM:** 356/DA
Dayton (H) BVORTAC 117.5/DAY 131° 10.8 NM to fld.
Remarks: **VOT:** 111.0 [1]Unusable below 1208′ MSL.

DEFIANCE RBn MHW 246/DFI **FSS:** FINDLAY

FINDLAY (L) BVORTAC 108.2/FDY **FSS:**FINDLAY
RBn BMH 209/FDY

FREMONT RBn MHW 394/FRO **FSS:** FINDLAY
Remarks: Pvt Facility.

GILBERT RBn MHW 378/GIL **FSS:** CLEVELAND

HAMILTON RBn MHW 260/HAO **FSS:** CINCINNATI

HUBBARD RBn MHW 408/HBD **FSS:** YOUNGSTOWN

JEFFERSON (L) BVORTAC 115.2/JFN **FSS:** YOUNGSTOWN

LIMA (T) BVOR 116.0/LIA **FSS:** FINDLAY

LOCKBOURNE AFB (T) VORW 113.8/LCK

MADEIRA RBn MHW 379/MDE

§**MANSFIELD MUNI** ***IFR*** 3N **FSS:** MANSFIELD on Fld
1296 H90/14–32(2) (S–75, T–100, T–) BL4,6 S5 F4, JP4 U2 **RVV:** Rnwy 32
Tower 119.3 122.5R 110.5T **Gnd Con** 121.9
App Con 124.7 122.5R 110.5T 108.8T
ILS 110.5 I–MFD Apch Brg 320° **LOM:** 374/MF
(L) BVORTAC 108.8/MFD 130° 3.5 NM to fld.
RBn MHW 374/MF 320° 4.0 NM to fld.
Remarks: LOM is MHW.

MARION RBn MHW 203/MNN **FSS:** MANSFIELD

MIDDLETOWN RBn MHW 239/MWO **FSS:** DAYTON

MONTGOMERY CO. (T) VORW 110.0/MGY **FSS:** DAYTON

NEWCOMERSTOWN (L) BVOR 111.8/CTW **FSS:** ZANESVILLE

PATTERSON (T) VOR 111.6/FFO
RBn MHW 326/CVV

ROSEWOOD (L) BVORTAC 112.8/ROD **FSS:** DAYTON

SANDUSKY (L) BVORTAC 109.2/SKY **FSS:** CLEVELAND

§**SPRINGFIELD MUNI** ***IFR*** 5S **FSS:** DAYTON (LC FA 2–4562)
1049 H90/5–23(3) (S–190, T–200, TT–380) BL4 S5 F4, JP4

OHIO—*Continued*

Springfield Muni (Continued)
Remarks: 150′ asphalt blast pad and 850′ asphalt overrun each end.
Tower[2] 120.7 126.2 **Gnd Con** 121.7
Radar Services: (BCN)
Dayton App Con[1] 118.4 **Dayton Dep Con** 118.4 134.1
RBn MHW 341/SGH 235° 2.6 NM to fld.
Remarks: [1]All IFR tfc lndg this area call Dayton App Con. [2]Oper 1245–2130Z, clsd holidays.

STADIUM RBn MHW 226/SUM **FSS:** CLEVELAND

STRONGSVILLE (L) VOR 112.0/STG **FSS:** CLEVELAND

TIPP CITY RBn MHW 212/TPC **FSS:** DAYTON

TIVERTON (L) BVOR 116.5/TVT **FSS:** MANSFIELD

§TOLEDO EXPRESS *IFR* 9SW **FSS:** FINDLAY (LC 242–4171)
684 H87/7–25(2) (S–107, T–163, TT–287) BL5,6,8A,9 S5 F5, JP1, JP4 U2 **RVV:** Rnwy 7
Remarks: U.S. Customs lndg rgts arpt.
Toledo Tower 118.1 126.2 122.5R 109.7T
Toledo Gnd Con 121.9
Radar Services: (BCN)
Toledo App Con 126.9 128.0 122.5R 113.1T 109.7T
Toledo Dep Con 119.2
ASR Rnwys 16, 25, 34 Ceil 400 Vsby 1 mi Min Alt 1084. Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1184
ILS 109.7 I–TOL Apch Brg 069° **LOM:** 219/TO

WATERVILLE (L) BVORTAC 113.1/VWV **FSS:** TOLEDO

WILLOUGHBY
§LOST NATION *IFR* 2 N **FSS:** CLEVELAND (DL)
626 H50/9–27(2) BL4,11 S5 F4,JP4 DT2 **REIL:** Rnwys 5, 27
Remarks: Fee. P-lines E, S, W. Rnwy 5 threshold displaced 200′ NE. 4800′ avbl lndg rnwy 5, twof rnwy 23.
Tower[3] 120.7 122.5R
Radar Services:
Cleveland App Con 124.0[1] 122.7R 118.5[2]
Cleveland Dep Con 121.0
Lost Nation (T) VOR 110.2/LNN at fld
Lost Nation RBn MH 263/LNN at fld
Remarks: [1]270°–089° [2]090°–269° [3]Oper 0230–1430Z.

§YOUNGSTOWN MUNI *IFR* 10 N **FSS:** YOUNGSTOWN on Fld
1196 H75/14–32(3) (S–116, T–160, TT–270) BL4, 6, 8A, 9 S5 F4 TP1 U2 **RVV:** Rnwy 32
Remarks: Rnwy 9–27 rnwy lgts inop. No acft over 10,000 lbs.
Tower 119.5 126.2 122.5R **Gnd Con** 121.9
App Con 118.0 126.2 122.5R 110.1T
ILS 110.1 I–YNG Apch Brg 320° **LOM:** 338/YN
(L) BVORTAC 109.0/YNG 183° 4.1 NM to fld.
VHF/DF Ctc twr.

ZANESVILLE (L) BVORTAC 111.4/ZZV **FSS:** ZANESVILLE
RBn BMH 275/ZZV

OKLAHOMA

ALTUS (L) VORW 109.8/LTS

ARDMORE (L) BVORTAC 116.7/ADM **FSS:** ARDMORE
RBn BMH 400/ADM

BARTLESVILLE (L) BVORTAC 117.9/BVO **FSS:** TULSA

BURNS FLAT (L) VOR 110.0/BFV

DUNCAN (L) BVOR 111.0/DUC **FSS:** ARDMORE

GAGE (H) BVORTAC 115.6/GAG **FSS:** GAGE

HENRY POST RBn MHWZ 308/PFL

HOBART (L) BVOR 111.8/HBR **FSS:** HOBART

OKLAHOMA—*Continued*

KINGFISHER (L) BVORTAC 114.2/IFI **FSS:** OKLAHOMA CITY

§LAWTON MUNI *IFR* 2 S **FSS:** WICHITA FALLS (LC EL5–1323)
1109 H54/17–35(1) (S–50, T–75, TT–135) BL4 S5 F5 JPI U–2
Remarks: P-line, ant NE
Tower[1] 119.9 122.5R **Gnd Con** 121.9
Fort Sill App Con 118.6 122.7R
Fort Sill Dep Con 118.6
Tfc Info Ctc Fort Sill App Con 118.6 122.7R
ASR Rnwy 35 Ceil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2/LAW 347° 4.1 NM to fld
Remarks: [1]Oper 1230–0430Z.

McALESTER (L) BVORTAC 112.0/MLC **FSS:** McALESTER

MUSKOGEE RBn MHW 306/MKO

OKLAHOMA CITY
§WILEY POST *IFR* 7 NW **FSS:** OKLAHOMA CITY on fld
1303 H54/17–35(2) (S–15, T–20, TT–30) BL4 S5 F4, JP4 U2
Remarks: Rgt tfc rnwys 12 and 17. 1596′ (2749′ MSL) twr 7.5 NM ENE. 1563′ (2726′ MSL) twr 7 NM E. 1572′ (2726′ MSL) twr 7.5 NM E.
Tower[1] 119.7 122.5R **Gnd Con** 121.7
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
Remarks: [1]Oper 1200–0400Z.

§WILL ROGERS WORLD *IFR* 6W **FSS:** OKLAHOMA CITY (LC SU9–7452)
1284 H98/17R–35L(4) (S–100, T–180, TT–350) BL4,6,8A,9,10,11 S5 F5, JP1, JP4 U2 **VASI:** Rnwy 17 **REIL:** Rnwy 12 **RVR** Rnwy 35L
Remarks: Rgt tfc rnwys 12, 17R, 21. Rnwy 3–21 and txwy (C–1) W side rnwy 3 restricted to 15000 lbs or less. 1572′ (2726′ MSL) twr 10 NM NE. 1563′ (2726′ MSL) twr 10.5 NM NNE. 1596′ (2749′ MSL) twr 11 NM NNE. Due non-vsby some area of fld, ctc twr. Rnwy 21 threshold displaced 647′ SW.
Tower 118.3 126.2R 122.7R 109.9T **Gnd Con** 121.9
ATIS: 109.9
Radar Services: (BCN)
Oklahoma City App Con 119.3 134.1x 122.5R 124.2 115.0T
Oklahoma City Dep Con 121.1
ASR Rnwy 17, 35 Ceil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I–OKC Apch Brg 351° **LOM:** 219/OK
Oklahoma City (H) BVORTAC 115.0/OKC 098° 8.1 NM to rnwy 12.
Oklahoma City RBn H–SAB 350●/OKC 092° 1.6 NM to fld
Remarks: [1]Glide slope unusable below 1417′ MSL. **VOT:** 108.8

OKMULGEE (L) BVOR 112.2/OKM **FSS:** TULSA

OWASSO RBn MHW 317/DW **FSS:** TULSA

PAGE (L) BVOR 113.5/PGO **CS/T:** FORT SMITH

PONCA CITY (H) BVORTAC 113.2/PNC **FSS:** PONCA CITY
RBn BMH 368/PNC

SAYRE (L) BVOR 115.2/SYO **FSS:** HOBART

STILLWATER (T) BVOR 108.4/SWO **FSS:** OKLAHOMA CITY (LC FR 2–4935)

TINKER AFB RBn HW 394/TIK

TULAKES RBn MHW 406/TWO **FSS:** OKLAHOMA CITY

§TULSA INTL *IFR* 5NE **FSS:** TULSA on Fld
674 H100/17L–35R(5) (S–50, T–75, TT–135)* BL4, 6, 8A, 9, 10 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 35R
Remarks: Rgt tfc rnwys 17R, 21R. Rnwy 35L threshold displaced 560′ SE end. Rnwy 8 threshold displaced 924′ W end. 1175′ (2147′ MSL) twr 9.5 NM W. Rnwy 21R clsd air carrier ngt operns. 4000′ blacktop track 1.5 NM E rnwy 26. Do not mistake for rnwy. *Rnwy 17R–35L: (S–100, T–200, TT–400).

OKLAHOMA—*Continued*

Tulsa Intl (Continued)
Tower 118.7 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.2
ATIS[3] 114.4
Radar Services: (BCN)
App Con 119.1 124.0 122.5R 110.3T **Dep Con** 120.7
Tfc Info Ctc App Con 25 mi out on 119.1
ASR Rnwys 17L, 26[1], 35R Ceil 400 Vsby 1 mi Min Alt 1074
ILS 109.7 I–DWE Apch Brg 175° BC unusable **LOM:** 317/DW
110.3 I–TUL[2] Apch Brg 355° **LOM:** 338/TU
(H) VORTAC 114.4/TUL 260° 4.3 NM to rnwy 26
RBn H–SAB 245●/TUL 220° 0.9 NM to fld.
Remarks: [1]500–1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Front crs unusable above 6600′ MSL. BC unusable above 4600′ MSL. Both systems not operd simultaneously. [3]Oper 1300–0300Z. **VOT:** 109.0.

§TULSA RIVERSIDE *IFR* 5S **FSS:** TULSA
624 H40/18–36(1) (S–50, T–60, TT–) BL4 S5 F4 U2
Remarks: Due non-vsby some areas of fld, ctc twr.
Tower:[1] 118.1 122.7R
Remarks: [1]Oper 1200–0400Z.

WOODRING (T) BVOR 109.0/ODG **FSS:** PONCA CITY

OREGON

ASTORIA (L) BVOR 114.0/AST **FSS:** HOQUIAM

BAKER (L) BVORTAC 115.3/BKE **FSS:** BAKER

CORVALLIS (L) BVOR 108.4/CVO **FSS:** EUGENE

EUGENE
§MAHLON-SWEET FLD *IFR* 7 NW **FSS:** EUGENE on Fld
365 H55/16–34(2) (S–80, T–120, T–190) BL4, 6, 8A, 9 S5 F4, JP1 U2 DT2 **RVV:** Rnwy 16
Eugene Tower 118.9 122.5R **Gnd Con** 121.9
Eugene App Con 119.6 122.5R 112.9T 1095T
ILS 109.5 I–EUG Apch Brg 159° **LOM:** 227/EU
Eugene (L) BVORTAC 112.9/EUG on fld

HILLSBORO
PORTLAND-HILLSBORO *IFR* 2NE **FSS:** PORTLAND (DL)
204 H40/2–20(2) BL4 S5 U-2 DT2
Tower[1] 119.3 122.6R **Gnd Con** 121.7 122.6R
VFR ADV: Ctc Portland App Con
Remarks: [1]Oper 0700–2300 lcl time.

JOHN DAY (H) BVORTAC 115.6/JDA **FSS:** BAKER

KLAMATH FALLS
§KINGSLEY FLD *IFR* 4 SE **FSS:** KLAMATH FALLS on Fld
4092 H103/14–32(3) (S–100, T–200, TT–380) BL4, 6,8A′, 9′ S5 F4, JP1 U2 DT2
Remarks: [1]Below FAA standards. 1000′ overrun N end, 750′ overrun S end rnwy 14–32.
Kingsley Tower 118.5 122.5R 269T **Gnd Con** 121.9
Radar Services: (BCN)
Klamath Falls App Con 119.4 122.5R
Klamath Falls Dep Con 124.1
Tfc Info Ctc App Con
PAR Rnwys 14, 32 Ceil 300 Vsby 3/4 Min Alt 4392
ILS[1] 109.5 I–LMT Apch Brg 319° BC unusable **LMM:**269/MT
Klamath Falls (L) BVORTAC 115.9/LMT on fld
Klamath Falls RBn MHW 218/LFA 319° 10.5 NM to fld.
Remarks: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 NM 20° E of cntrline extended. Only azimuth info provided acft executing radar monitored ILS apchs.

LAKEVIEW (H) BVORTAC 112.0/LKV **FSS:** KLAMATH FALLS

OREGON—*Continued*

§MEDFORD, JACKSON COUNTY *IFR* 2 N **FSS:** MEDFORD on Fld
1330 H54/14–32(2) (S–80, T–120, TT–180) BL5, 6, 8A, 9, S5 F4, TP1 U2 DT2 **RVR:** Rnwy 14
Remarks: Ngt fueling delay and surcharge 1800–0730 lcl time. Rnwy 27 apch obstructed by logging trucks.
Tower 118.3 122.5R **Gnd Con** 121.9
App Con 119.8 110.3T 113.6T
ILS[1] 110.3 I–MFR Apch Brg 141° **LOM:** 394/MF
(H) BVORTAC 113.6/MFR 147° 6.3 NM to Rnwy 14.
RBn SBH 263/MFR 161° 2.1NM to fld.
VHF/DF Ctc twr or FSS.
Remarks: [1]ILS not certified for automatic apchs.

NEWBERG (H) BVORTAC 117.4/UBG **FSS:** PORTLAND

NEWPORT (H) BVORTAC 117.1/ONP **FSS:** EUGENE

NORTH BEND (L) BVORTAC 112.1/OTH **FSS:** NORTH BEND
RBn MHW 236/OBN

ONTARIO RBn MHW 305/ONO **FSS:** BOISE

§PENDLETON MUNI *IFR* 2 NW **FSS:** PENDLETON on Fld
1493 H63/7L–25R(4) (S–70, T–100, TT–170) BL4, 6, 8 S5 F4 U2 DT2 **RVV:** Rnwy 25
Remarks: Rnwy 25L threshold displaced 821′W. 2029′ avbl lndg rnwy 25L, 7R–25L dalgt operns only lgt planes.
Tower 118.7 122.5R **Gnd Con** 121.9
App Con 118.7 114.7T 341T
ILS 110.3 I–PDT Apch Brg 250° **LOM:** 236/PD
(H) BVORTAC 114.7/PDT 073° 3.6NM to fld.
RBn SABH 341●/PDT 259° 1.7 NM to fld
VHF/DF Ctc twr or FSS.

§PORTLAND INTL *IFR* 4 NE **FSS:** PORTLAND on Fld
26 H88/10R–28L(3) (S–100, T–200, TT–400) BL5, 6, 8A, 9 S5 F5, JP4 U2 DT2 **RVR:** Rnwy 10R, 28R
Remarks: U.S. Customs lndg rgts arpt.
Tower 118.7 122.7R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1[2] 126.2 119.8[3] 109.9T
Dep Con 124.9
Tfc Info Ctc App Con
PAR Rnwy 10R Ceil 200 Vsby 1/2 mi Min Alt 226
ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726
Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 826
ILS 109.9 I–PDX Apch Brg 098° BC restricted **LMM:** 201/DX
111.3 I–IAP Apch Brg 278° **LOM:** 383/IA
(H) BVORTAC 116.6/PDX 159° 9.2 NM to fld.
RBn SABH 332●/PDX 155° 2.9 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Min alt over 3 mi radar fix inbnd on final 900. [2]070–289°. [3]290–069°. **VOT:** 111.0.

§PORTLAND-TROUTDALE *IFR* Adj NW **FSS:** PORTLAND (DL)
36 H46/7–25(1) (Max 20) BL 4 S5 F4 U2 DT2
RVV: Rnwy 7
Remarks: Rnwy 7 threshold displaced 400′ E. 4241′ avbl lndg rnwy 7. Rnwy 25 threshold displaced 500′W. 4141′ avbl lndg rnwy 25.
Troutdale Tower[3] 120.5 122.5R **Gnd Con** 121.7
Radar Services:
Portland App Con 118.1[1] 119.8[2]
Portland Dep Con 124.9
Remarks: [1]070–289° [2]290–069°. [3]Oper 1500–0700Z.

REDMOND (L) BVORTAC 117.6/RDM **FSS:** REDMOND
RBn H–SAB 368●/RDM

ROME (H) BVORTAC 112.5/REO **FSS:** BAKER

OREGON—*Continued*

ROSEBURG (L) BVOR 108.2/RBG FSS: EUGENE

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§SALEM-MCNARY FLD ***IFR*** 1 SE FSS: PORTLAND (DL)
207 H58/13–31(2) (S–50, T–75, TT–110) BL4, 6 S5 F4 U1 DT2 **RVV:** Rnwy 31
Remarks: Rnwy 16–34 unlgtd clsd daily from 30 mins before SS til 30 mins after SR and when wea is below VFR mins. Med Intensity apch lgts sys with sequence flashers rnwy 31.
ILS[1] 110.3 I-SLE Apch Brg 309° **LOM:** 266/SL
Remarks: [1]Non FAA monitored.

SAUVIES ISLAND RBn MHW 219/SVY FSS: PORTLAND

THE DALLES (H) BVORTAC 117.2/DLS FSS: THE DALLES

PENNSYLVANIA

§ALLENTOWN-BETHLEHEM-EASTON ***IFR*** 3 NE
FSS: ALLENTOWN on Fld
388 H62/6–24(4) (S–55, T–76, TT–125) BL4,6,8A,9 S5 F4 JP1 U2 DT2 **RVR:** Rnwy 6
Remarks: 5210′ avbl lndg rnwy 24. Rnwy 14–32 open for ngt opern 2415′ btn threshold lgts plus 175′ of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
Allentown Tower 120.5 122.5R 223T **Gnd Con** 121.9
Clrnc Del 121.9
Allentown App Con 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I–ABE Apch Brg 061° **LOM:** 400/AB
Allentown (L) BVORTAC 117.5/ABE 180° 4.1 NM to fld
Allentown Rng SBMAZ[1] 321/AE 195° 2.5 NM to fld.
Remarks: [1]Reliable reception distance 40 NM.

ALTOONA (T) BVOR 108.8/AOO FSS: ALTOONA

AMBLER RBn MHW 275/ING FSS: PHILADELPHIA
Remarks: State owned.

BRADFORD (L) BVORTAC 116.6/BFD FSS: BRADFORD
RBn BMH 224/BFD

BUTLER RBn MHW 375/BTP FSS: PITTSBURGH

CARROLLTOWN (L) BVORTAC 110.6/CLN FSS: ALTOONA

CLARION (L) BVOR 112.9/CIP FSS: DU BOIS

COATESVILLE RBn MHW 262/CVE FSS: PHILADELPHIA

CREEK RBn MHW 219/CRK FSS: PITTSBURGH

CRYSTAL LAKE RBn MHW 392/CYE FSS: WILKES–BARRE

DU BOIS RBn BH 356/DUJ FSS: DU BOIS

EAST TEXAS (L) BVORTAC 110.2/ETX FSS: ALLENTOWN

ELLWOOD CITY (H) BVORTAC 115.8/EWC FSS: PITTSBURGH

ERIE
§PORT ERIE ***IFR*** 5 SW FSS: ERIE on Fld
732 H50/6–24(3) (S–75, T–115, TT–) BL4, 6, 8A, 9, 11 S5 F4, JP1 U2 DT2 **RVR:** Rnwy 6 **REIL:** Rnwy 24
Remarks: U.S. Customs lndg rgts arpt. P-lines S, E. Hiway W.
Erie Tower: 118.1 122.5R **Erie Gnd Con** 121.9
Erie App Con 119.0 118.4[1] 122.5R
ILS 110.3 I–ERI Apch Brg 060° BC unusable **LOM:** 349/ER
Erie (H) BVORTAC 112.7/ERI 060° 6 NM to rnwy 6.
Erie RBn MHW 372/ERI 240° 3.6 NM to rnwy 24.
Remarks: [1]For App/Dep Con for Bradford, McKean Co Arpt Pa. and Jamestown Arpt N.Y. only.

FRANKLIN (L) BVOR 109.6/FKL FSS: YOUNGSTOWN
RBn MHW 233/FKL

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§HARRISBURG-YORK STATE ***IFR*** 3 S FSS: HARRISBURG on Fld
347 H50/8–26(3) (S–65, T–105, TT–185) BL4, 6, 8A, 9 S5 F4, JP1 U2 **RVV:** Rnwy 8
Remarks: Rgt tfc rnwys 20 & 26. Fence SE. Chimney SSW.
Harrisburg Tower 119.5 126.2 122.5R 109.1T

PENNSYLVANIA—*Continued*

Gnd Con 121.9
Radar Services: (BCN)
Harrisburg App Con 124.1 126.2 122.5R 109.1T
Harrisburg Dep Con 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447. Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS[2] 109.1 I–HAR Apch Brg 079° BC unusable **LOM:** 219/HA
Harrisburg (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
Harrisburg Rng SBMRAZ[1] 338/HR 118° 0.9 NM to fld.
Remarks: [1]Reliable reception distance 40 NM. [2]Lclzr crs vagaries and/or flag indications may be encountered below 6000′ MSL beyond 10 NM when more than 15° S lclzr crs.

HAZLETON (T) BVOR 109.4/HZL FSS: WILKES BARRE
RBn MHW[1] 212/HZL
Remarks: [1]Oper 1200–2400Z by City.

IMPERIAL (L) VORTAC 109.4/IRL FSS: PITTSBURGH

INDIANA RBn MHW 242/INP FSS: ALTOONA

INDIAN HEAD (L)BVORTAC 108.6/IHD FSS: MORGANTOWN

JOHNSTOWN (L) BVORTAC 113.0/JST FSS: ALTOONA

KEATING (L) BVOR 114.7/ETG FSS: PHILIPSBURG

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§LANCASTER ***IFR*** 5N FSS: HARRISBURG (LC 392–0881)
403 H50/8–26(2) (S–77, T–107, TT–) BL4, 11 S5 F4 DT2
REIL: Rnwy 8
Remarks: Use rnwys
Tower[1] 120.9 122.7R **Gnd Con:** 121.7
Tfc Info: Ctc Harrisburg App/Dep Con
(L)BVOR 117.3/LRP
Rbn MHW 326/LRP
Remarks: [1]Oper 1200–0400Z.

LATROBE (T) VORW 108.2/LBE FSS: PITTSBURGH

MCKEESPORT RBn MHW 287/MKP FSS: PITTSBURGH

MILTON (L) BVORTAC 109.2/MIP FSS: WILLIAMSPORT

PHILADELPHIA
§ NORTH PHILADEPHIA ***IFR*** 10 NE FSS: PHILADELPHIA on Fld
120 H50/6–24(2) (S–120, T–200, TT–) BL4, 6, 12 S5 F4, JP1 U2 DT2
Remarks: P-line SW.
Tower 121.3 126.2 122.5R 112.0T **Gnd Con** 121.9
Radar Services:
Philadelphia App Con 127.2[1] 123.8[2] 122.7R
Philadelphia Dep Con 119.0[1] 128.55[2]
North Philadelphia (T) BVOR 112.0/PNE at fld.
North Philadelphia RBn MHW 343/PNE 238° 2.4 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]270–089° [2]090–269°

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§PHILADELPHIA INTL ***IFR*** 5 SW FSS: PHILADELPHIA (DL)
14 H95/9–27 (3) (S–120, T–200, TT–400) BL4, 6, 8A, 9 S5 F5, JP1, JP4, JP5 U2 DT2 **RVR:** Rnwy 9
Remarks: U.S. Customs lndg rgts arpt. Fence E, NE.
Tower 118.5 122.7R **Gnd Con** 121.9
‡Clrnc Del 127.7
Radar Services: (BCN)
App Con 127.2[1] 123.8[2] 122.7R
Dep Con 119.0[1] 128.55[2]
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
PAR[3] Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 214
ILS 109.3 I–PHL Apch Brg 085°. **LOM:** 237/PH
VHF/DF Ctc twr.
Remarks: [1]270–089°. [2]090–269°. [3]Radar monitoring of instrument apchs only at pilots req. To be decmsnd Jan 15, 1967.
VOT: 111.0.

PHILIPSBURG (H) BVORTAC 115.5/PSB FSS: PHILIPSBURG
RBn MHW 236/PSB

PENNSYLVANIA—*Continued*

PICTURE ROCKS RBn MHW 344/PIX **FSS:** WILLIAMSPORT

PITTSBURGH

§ALLEGHENY COUNTY *IFR* 4 S **FSS:** PITTSBURGH on Fld
1252 H55/9-27(3) (S-70, T-120, TT-210) BL6, 8A, 9, 11
S5 F4, JP1 U2 DT2 **REIL:** Rnwy 9, 23 and 30 **RVR:** Rnwy 27
Remarks: 1066′ (2049′ MSL) twr 7.5 NM SE.
Tower 121.1 126.2 122.5R 109.1T **Gnd Con** 121.7
Radar Services: (BCN)
Pittsburgh App Con 124.15[1] 134.1 122.7R 118.7[2]
Pittsburgh Dep Con 125.9
ILS 109.1 I-AGC Apch Brg 275° BC unusable
(H) BVORTAC 117.1/AGC 052° 6.4 NM to fld
RBn H-SAB 254●/AGC 082° 2.0 NM to fld
Remarks: [1]270-089° [2]090-269°

§GREATER PITTSBURGH *IFR* 12 NW **FSS:** PITTSBURGH (DL)
1203 H105/10L-28R(4) (S-120, T-200, TT-400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, JP4 DT2 **VASI:** Rnwy 28L **RVR:** Rnwys 10L, 28R, 28L **REIL:** Rnwy 32
Remarks: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491′ W. 7509′ avbl lndg rnwy 28L. U.S. Customs lndg rgts arpt.
Pittsburgh Tower 119.1 126.2 122.7R 110.3T
‡Clrnc Del 121.3 **Gnd Con** 121.9
ATIS 109.4
Radar Services: (BCN)
Pittsburgh App Con 118.7[2] 134.1 122.7R 124.15[1]
Pittsburgh Dep Con 125.9
Tfc Info Ctc Radar App Con on 124.15 when apchg from NW & NE, and on 118.7 from SE & SW.
PAR[3] Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1403
ASR Rnwys 5, 14, 28R, 23 Ceil 500 Vsby 1 mi Alt 1703
Rnwy 10L, 10R, 28L, 32 Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° BC unusable **LOM:** 323/GP
111.7 I-LXB Apch Brg 097° BC unusable.
VHF/DF Ctc twr.
Remarks: [1]270-089° [2]090-269°. [3]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.2

POTTSTOWN (L) BVORTAC 116.5/PTW **FSS:** PHILADELPHIA

RAVINE (L) BVORTAC 114.6/RAV **FSS:** HARRISBURG

READING

§GENERAL SPAATZ FIELD *IFR* 2NW **FSS:** HARRISBURG (LC 376-3045)
343 H51/18-36(3) (S-30, T-45, TT-175) BL4, 6, 7, 12 S5 F4, JP4 U2 DT2
Remarks: Rgt tfc rnwys 5, 13, and 36.
Reading Tower 126.2 119.9 122.5R 109.5T
Gnd Con 121.9
Reading App Con 119.9 122.5R 109.5T
ILS 109.5 I-RDG Apch Brg 001° BC unusable **LOM:** 269/RD
VHF/DF Ctc twr.

ST. THOMAS (L) BVOR 115.0/THS **FSS:** HARRISBURG

SELINSGROVE (L) BVORTAC 110.4/SEG **FSS:** WILLIAMSPORT

SLATE RUN (H) BVORTAC 113.9/SLT **FSS:** BRADFORD

STONY FORK (L) BVORTAC 111.2/SFK **FSS:** ELMIRA

TANNERSVILLE (L) BVORTAC 114.2/TVE **FSS:** ALLENTOWN

THORNHURST (L) BVORTAC 112.4/TOH **FSS:** WILKES BARRE

TIDIOUTE (L) BVORTAC 117.6/TDT **FSS:** BRADFORD

TOBYHANNA RBn MHW 410/TSD

TYRONE (L) BVORTAC 114.9/TON **FSS:** PHILIPSBURG

WEST CHESTER (L) BVORTAC 113.2/ESR **FSS:** PHILADELPHIA

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§WILKES-BARRE-SCRANTON *IFR* 9 NE **FSS:** WILKES-BARRE on Fld
956 H52/4-22 (3) (S-100, T-140, TT-) BL4-6,8A,9 F5, JP4 DT2 **RVV:** Rnwy 4

PENNSYLVANIA—*Continued*

Remarks: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft. Due non vsby some areas of fld, ctr twr.
FAA Dep Proc: Rnwy 16, 22. Right hand tfc pattern.
Wilkes-Barre Tower 120.1 122.5R 109.9T **Gnd Con** 121.9
Radar Services: (BCN)
Wilkes-Barre App Con 124.5 122.5R 109.9T
Wilkes-Barre Dep Con 126.3
ASR Rnwy 4 Ceil 1000 Vsby 1½ mi Min Alt 1956
Rnwy 10,22 Ceil 900 Vsby 1 mi Min Alt 1856
ILS[1] 109.9 I-AVP Apch Brg 043° BC unusable **LOM:** 257/AV
Wilkes-Barre (L) BVORTAC 111.6/AVP 242° 13.5 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown. Flag indications may be encountered below 4000′ MSL beyond 18 NM when more than 15° E of lclzr crs.

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§WILLIAMSPORT-LYCOMING CO *IFR* 4 E **FSS:** WILLIAMSPORT on Fld
528 H50/9-27 (3) (S-40, T-60, TT-) BL4,6,8A,9 S5 F4, JP1 DT2
Remarks: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 12,500 lbs and under. Rnwy 12-30 (Max-200) Rgt tfc rnwy 33, 27, 30. Pole E. P-line NW.
Williamsport Tower 119.1 122.5R
Williampsort Gnd Con 121.9
Williampsort App Con 124.9 122.5R
ILS 110.1 I-IPT Apch Brg 266° BC unusable **LMM:** 281/PT
Williamsport (L) BVORTAC 114.4/IPT 238° 9.0 NM to fld.

YARDLEY (H) BVORTAC 115.7/ARD **FSS:** PHILADELPHIA

YORK RBn MHW 242/THV **FSS:** HARRISBURG

RHODE ISLAND

NAVY QUONSET POINT (L) VOR 114.4/NCO

PROVIDENCE

§GREEN *IFR* 6 S **FSS:** PROVIDENCE on Fld
56 H54/5R-23L(4) (S-94.5, T-143, TT) BL5,6,8A,9 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 5R
Remarks: U.S. Customs lndg rgts arpt. Fee. No mult engine lndgs 5L, no tkofs 23R.
Providence Tower 120.7 122.5R 109.3T 368T
Gnd Con 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Quonset App Con 118.6 134.1 120.1
Quonset Dep Con 124.5 126.2 123.8
ILS 109.3 I-PVD Apch Brg 046° BC unusable **LOM:** 368/PV
Providence (H) BVORTAC 115.6/PVD at fld.

SOUTH CAROLINA

ALLENDALE (L) BVOR 116.7/ALD **FSS:** SAVANNAH

ANDERSON (L) BVORTAC 108.6/AND **FSS:** ANDERSON

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§CHARLESTON AFB/MUNI *IFR* 9 NW **FSS:** CHARLESTON on Fld
45 H90/15-33 (2) (S-100, T-140, TT-250) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwys 15, 21, & 33 **RVR:** Rnwy 15
Remarks: U.S. Customs lndg rgts arpt.
Tower 121.0 122.5R 126.2 113.5T[2] 109.7T **Gnd Con** 121.9
Clrnc Del 121.7
ATIS 113.5
Radar Services:
App Con 119.3 118.5 109.7T
Dep Con 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445.
PAR Rnwy 3 Ceil 400 Vsby 1 mi Min Alt 445
Rnwy 15 Ceil 200 Vsby ½ mi Min Alt 245
Rnwy 33 Ceil 400 Vsby ¾ mi Min Alt 445

SOUTH CAROLINA—*Continued*

Charleston AFB/Muni (Continued)

ILS[1] 109.7 I–CHS Apch Brg 149° BC unusable **LOM:** 329/CH
(H) VORTAC 113.5/CHS on fld.
RBn H–SAB 329●/CH
VHF/DF Ctc FSS
Remarks: LOM is H–SAB. **VOT:** 111.0.

CHESTERFIELD (L) BVOR 108.2/CTF **FSS:** FLORENCE

COLUMBIA

§COLUMBIA METROPOLITAN *IFR* 5SW
FSS: FLORENCE (LC 256–1506)
236 H75/10–28(2) (S–45, T–130, TT–270)* BL6, 8A, 9 S5 F5 JP1 U2 **RVV:** Rnwy 10
Remarks: *Rnwy 5–23 (S–45, T–170, TT–320). Rnwy 23 threshold displaced 400′. 4601′ avbl lndg rnwy 23, tkof rnwy 5; 5001′ avbl lndg rnwy 5; tkof rnwy 23.
Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
App Con 118.2 122.5R 110.3T
ILS 110.3 I–CAE Apch Brg 107° BC unusable **LOM:** 362 CA
(H) BVORTAC 114.7/CAE 332° 5.7 NM to fld.

§OWENS FIELD 1SE **FSS:** FLORENCE (LC 256–1506)
203 H36/15–33(2) (S–30) L4 S5 F4 U1
Remarks: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. P-lines W, SE. Roads NW, NE.
Tower[1] 126.2 122.5R
Columbia App Con 118.2 122.5R 110.3T
Remarks: [1]AAS—Oper weekdays 1230–1630Z and 1745–2115Z. Sats 1230–1600Z.

CONWAY RBn HW 269/MTL

FLORENCE (H) BVORTAC 115.2/FLO **FSS:** FLORENCE

FORT MILL (L) BVORTAC 112.4/FML **FSS:** HICKORY

GREENVILLE

§GREENVILLE MUNI DOWNTOWN *IFR* 2 E **FSS:** GREER
1047 H54/18–36 (3) (S–21, T–30, TT–60) BL4,6 S5 F4, JP1 U2
Remarks: Rgt tfc rnwys 18, 27, 23.
Tower[2] 119.9 126.2 122.5R 109.7T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.0 124.3 122.5R 119.4 109.7T
Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547.
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447.
ILS[1] 109.7 I–GRL Apch Brg 002° BC unusable **LOM:** 272/GR
Remarks: [1]Glide slope unusable below 1347′ MSL. ILS monitored electronically 0400–1200Z. [2]Oper 1200–0400Z.

GREENWOOD (L) BVORTAC 114.9/GRD **FSS:** ANDERSON

GREER

§GREENVILLE-SPARTANSBURG *IFR* 3 S **FSS:** GREER on Fld
972 H76/3–21 (2) (S–120) BL6,8A,9, 14,15 S5 F5, JP5 U2
RVR: Rnwy 3
Remarks: Fee commercial only.
Greer Tower 120.1 126.2 122.7R 115.7T 109.3T
Gnd Con 121.8
Radar Services: (BCN)
Greenville App Con 118.0 124.3 122.5R 119.4 109.7T
Greenville Dep Con 118.8
Tfc Info Ctc App Con 25 NM out.

ILS 109.3 I–GSP Apch Brg 033° **LOM:** 287/GS
VHF/DF Ctc FSS.

MYRTLE BEACH (L) BVORTAC 117.6/CRE **FSS:** FLORENCE

SHAW AFB RBn HW 375/SW

SOUTH CAROLINA—*Continued*

§SPARTANSBURG DOWNTOWN MEMORIAL *IFR* 2SW
FSS: GREER (LC 585–5470)
816 H52/4–22(3) (S–28, T–45, TT–) BL4,6 S5 F5, JP1 JP5
Tower[1] 118.3 126.2 122.5R **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Greenville App Con 124.3
Greenville Dep Con 118.8
(H) BVORTAC 115.7/SPA 196° 7.0 NM to rnwy 17.
RBn H–SAB 248●/SPA 068° 1.2 NM to fld.
Remarks: [1]Oper 1100–0300Z.

VANCE (L) BVOR 110.4/VAN **FSS:** CHARLESTON

SOUTH DAKOTA

ABERDEEN (H) BVORTAC 113.0/ABR **FSS:** ABERDEEN

BROOKINGS RBn HW 232/BKX
Remarks: To be in common system.

DU PREE (H) BVORTAC 116.8/DPR **FSS:** PIERRE

ELLSWORTH (L) BVOR 110.8/RCA

HURON

§HOWES MUNI *IFR* 1NW **FSS:** HURON on Fld
1287 H51/12–30(2) (S–50, T–75, TT–132) BL6,11 S5 F2,4 U1
REIL: Rnwy 12
Remarks: Rnwy 17–35 clsd to acft over 3500 lbs; usable length 1875′.
ILS[1] 110.3 1–HON Apch Brg 118° **LOM:** 302/HO
Huron (L) BVOR 117.6/HON 124° 4.5 NM to fld.
Huron RBn SBH 391/HON 041° 2.4 NM to fld.

LEMMON (T) VOR 111.4/LEM **FSS:** DICKINSON
Remarks: VFR use only.

MITCHELL (L) BVOR 109.2/MHE **FSS:** HURON
Remarks: VFR use only.

PHILIP (L) BVOR 108.4/PHP **FSS:** PIERRE

PIERRE (L) BVORTAC 112.5/PIR **FSS:** PIERRE
RBn SHB[1] 347/PIR
Remarks: [1]VFR use only.

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§RAPID CITY MUNI *IFR* 8SE **FSS:** RAPID CITY on fld
3181 H62/14–32(2) (S–63, T–85, TT–140) BL6,11 S5 F4. U2 JP1 **REIL**[1] Rnwys 14, 32.
Remarks: [1]Non FAA approved.
Tfc Info Ellsworth App Con
Tower:[1] 118.7 122.5R **Gnd Con** 121.9
(H) BVORTAC 112.3/RAP 322° 4.0 NM to fld.
RBn SABH 254●/RAP 102° 1.7 NM to fld.
VHF/DF Ctc FSS.
Remarks: [2]Oper 1300–0500Z.

SIOUX FALLS

§JOE FOSS FIELD *IFR* 2NW **FSS:** HURON (DL)
1428 H90/3–21(3) (S–85, T–120, TT–220) BL4,6,8A,9,11 S5 F5 JP1 U2 **RVV:** Rnwys 3, 21 **RVR:** Rnwy 3. **REIL:** Rnwy 15
Remarks: 1032′ (2442′ MSL) twr 8 NM SE. Rnwy 9–27 clsd acft over 30,000 lbs.
Foss Tower 118.3 122.5R **Gnd Con** 121.9
Foss App Con 125.8 122.5R 115.0T 109.9T 245T
Tfc Info Ctc App Con on 125.8
ILS 109.9 1–FSD Apch Brg 026° **LOM:** 219/FS
Sioux Falls (H) BVORTAC 115.0/FSD 147° 4.1 NM to fld.
Sioux Falls RBn SBH 245/FSD 094° 1.9 NM to fld

SOUTH DAKOTA—*Continued*

WATERTOWN (L) BVORTAC 116.6/ATY **FSS:** WATERTOWN

WINNER (L) BVOR 112.8/ISD **FSS:** PIERRE

YANKTON (L) BVOR 111.4/YKN **FSS:** HURON

TENNESSEE

BOONE RBn HW 221/BON

BRISTOL
§TRI-CITY *IFR* 12SW **FSS:** TRI-CITY on Fld
1519 H66/4–22(2) (S–95, T–125, TT–215) BL6,8A,9 S5 F5, JP1 U2 **RVV:** Rnwy 22
Tower[2] 119.5 126.2 122.5R 114.6T 109.9T **Gnd Con** 121.9
Radar Services:
App Con 125.7 118.4 126.2 122.5R 114.6T
Dep Con 119.5 126.2
ILS[1] 109.9 I–TRI Apch Brg 224° BC unusable **LOM:** 299/TR
ASR Rnwy 4 Ceil 600 Vsby 1 mi Min Alt 2119
Rnwy 22* Ceil 700 Vsby 3/4 mi Min Alt 2219
Remarks: [1]Lclzr unusable above 6000′ MSL. [2]Oper 1100–0500Z. *Maintain 2300′ til passing 2.5 mi radar fix on final.

BROOKS RBn MHW 287/ME **FSS:** MEMPHIS

CHATTANOOGA
§LOVELL FIELD *IFR* 5E **FSS:** CROSSVILLE (LC 267–5343)
682 H62/2–20(2) (S–90, T–120, TT–) BL4,6,8A,9,10 S5 F5, JP4, JP5 U2 **VASI:** Rnwy 2 **RVV:** Rnwy 20
Chattanooga Tower 118.3 119.2 126.2 122.5R 109.5T
Gnd Con 121.9
Radar Services: (BCN)
Chattanoga App Con 119.2[1] 125.1[2]
Chattanooga Dep Con 119.2[1] 125.1[2]
Tfc Info Ctc App Con 25NM out on 125.1
ASR Rnwy 2 Ceil 400 Vsby 1 mi Min Alt 1082
Rnwy 20 Ceil 500 Vsby 1 mi Min Alt 1182
Rnwy 32 Ceil 600 Vsby 1 mi Min Alt 1282
ILS 109.5 I–CHA Apch Brg 196° **LMM:** 201/HA
Chattanooga (H) BVORTAC 115.8/CHA 332° 4.9 NM to fld
N Chattanooga RBn HW 341/CQN 196° 7.7 NM to fld.
Remarks: [1]016–196° [2]197–015° Glide slope unusable below 885′ MSL.

CLARKSVILLE (T) BVOR 110.6/CKV **FSS:** NASHVILLE

CROSSVILLE (L) BVORTAC 117.6/CSV **FSS:** CROSSVILLE
RBn MHW[1] 375/CMA
Remarks: [1]Operd by City. Unusable beyond 15 NM.

DYERSBURG (L) BVORTAC 116.8/DYR **FSS:** DYERSBURG

GRAHAM (L) BVOR 111.6/GHM **FSS:** NASHVILLE

HIGHWAY (L) BVOR 108.4/HIY **FSS:** CROSSVILLE

HOLSTON MOUNTAIN (L) BVORTAC 114.6/HMV **FSS:** TRI CITY

JACKS CREEK (L) BVORTAC 109.4/JKS **FSS:** JACKSON

KNOXVILLE
§McGHEE-TYSON *IFR* 11S **FSS:** KNOXVILLE on Fld
989 H90/4L–22R(3) (S–84, T–90, TT–200) BL4,6,8A,9 S5 F5, JP1 U2 **RVR:** Rnwy 4L.
Remarks: Rgt tfc rnwys 4R and 22R.
Knoxville Tower 118.7 126.2 122.5R 116.4T 110.3T
Gnd Con 121.9
Radar Services: (BCN)
Knoxville App Con 123.9 122.5R 116.4T 110.3T
Knoxville Dep Con 120.2
Tfc Info Ctc App Con 25 mi out.

TENNESSEE—*Continued*

ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I–TYS Apch Brg 046° BC unusable **LOM:** 353/TY
Knoxville (H) BVORTAC 116.4/TYS 222° 6.6 NM to rnwy 22R.
Knoxville RBn H–SAB[1] 281●/TYS 200X 2.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]AB 1000–0300Z. **VOT:** 112.0.

McKELLER (T) BVOR 112.0/MKL **FSS:** JACKSON

§MEMPHIS METROPOLITAN *IFR* 3S **FSS:** MEMPHIS on Fld
331 H89/9–27(4) (S–105, T–150, TT–240)* BL4,6,8A,9,10,15 S5 F5,JP5 U2 **VASI:** Rnwy 27 **RVR:** Rnwy 9, 35
Remarks: Rnwy 3–21 & 14–32 (S–100). *Rnwy 17–35. (S–110, T–150, TT–270). 3816′ avbl lndg & tkoff both directions rnwy 14–32. 1088′ (1340′ MSL) twr 9 NM NNE. 1078′ (1333′ MSL) twr 10 NM NE. 1077′ (1349′ MSL) twr 11 NM NE. Touchdown zone lgts rnwy 35.
Tower 118.3 126.2 122.5R 115.5T 110.5T 109.5T
Clrnc Del: 125.2[7]
Gnd Con 121.9
ATIS 121.0
Radar Services: (BCN)
App Con 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T **Dep Con** 119.7
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I–MEM[6] Apch Brg 087° **LOM:** [4]287/ME
110.5 I–TSE[3] Apch Brg 354° BC unusable **LOM:** 371/TS[5]
(H) BVORTAC 115.5/MEM 346° 5.4 NM to rnwy 35.
RBn H–SAB 371●/TS 354° 4.7 NM to fld.
VHF/DF Ctc FSS
Remarks: [1]087–267° [2]268–086° [3]Glide slope unusable below 400′ MSL. [4]LOM is Brooks MHW. [5]LOM is H–SAB. [6]Glide slope unusable below 350′ MSL. [7]To be comsnd Jan 5, 1967. **VOT:** 111.0.

§NASHVILLE METROPOLITAN *IFR* 5SE **FSS:** NASHVILLE on Fld
597 H80/13–31(3) (S–76, T–130, TT–220) BL4,6,8A,9 S5 F5 JP1 U2 **RVR:** Rnwy 2L
Remarks: Rnwy 2R–20L–240′ overrun N end; 1185′ S end; rnwy 2L–20R–1065′ overrun S end; rnwy 13–31–1000′ overrun SE and NW end. 1368.5′ (2049′ MSL) twr 8.5 NM W. 1179′ (2049′ MSL) 9 NM NNW.
Berry Tower 119.1 126.2 122.5R 109.9T **Gnd Con** 121.9
ATIS[3] 114.1
Radar Services: (BCN)
App Con 120.6 124.0 122.5R 109.9T
Dep Con 118.4
Tfc Info Ctc App Con 25 mi out on 120.6.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I–BNA Apch Brg 016° **LOM:**304/BN
Nashville (H) VORTAC 114.1/BNA 313° 4.5 NM to fld
Nashville RBn H–SAB[2] 304●/BN 016° 5.0 NM to rnwy 2L
VHF/DF Ctc twr.
Remarks: [1]Main 1200′ til 2 mi from end of rnwy on final to rnwy 20R. LOM is H–SAB. [2]AB 0500–2200. [3]To be comsnd Jan 5, 1967. **VOT:** 112.0.

NORTH CHATTANOOGA RBn MHW 341/CQN **FSS:** CROSSVILLE

SEWANEE RBn MHW 275/UOS **FSS:** CROSSVILLE
Remarks: Oper by Univ. of South-Franklin Co. Inop UFN.

SHELBYVILLE (T) BVOR 109.2/SYI **FSS:** NASHVILLE
RBn MHW 212/SYI

SNOWBIRD (L)BVOR 108.8/SOT **FSS:** KNOXVILLE

TEXAS

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§ABILENE MUNI *IFR* 3SE **FSS:** ABILENE on Fld
1778 H60/17-35(2) (S-70, T-89, TT-145) BL4,6,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 35
Remarks: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI App Con 124.1 mc tsmt 122.5 and receive 124.1 mc 20 mi out.
Tower[1] 120.1 126.2 122.7R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **Dep Con** 125.0
Tfc Info Ctc App Con 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
ILS 110.3 I-ABI Apch Brg 350° **LOM:** 353/AB
(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.
Remarks: [1]Opers 0600-2300 lcl time.

ALICE (L) BVOR 114.5/ALI **FSS:** ALICE

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§AMARILLO AFB/MUNI *IFR* 8E **FSS:** AMARILLO on Fld
3605 H135/3-21(2) (S-65, T-330, TT-470) BL6,8A,9,10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21
Remarks: Rgt tfc rnwy 3. Rectangular tfc ptn 5100′ MSL. Overhead tfc ptn 5400′ MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.
Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 126.2 124.8 122.5R 117.2T 110.3T
Dep Con 119.5
Tfc Info Ctc App Con 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4005. Rnwys 13, 31 Ceil 500 Vsby 1½ mi Min Alt 4105
ILS[1] 110.3 I-AMA Apch Brg 035° **LOM:** 338/AM
(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.
RBn SABH 251●/AMA 109° 1.3 NM to fld.
Remarks: [1]Glide slope unusable below 3905′ MSL. LOM is Tradewind MHW.

ANDRAU RBn MHW 269/AAP **FSS:** HOUSTON

AUSTIN
§MUELLER MUNI *IFR* 2NE **FSS:** AUSTIN on Fld
632 H73/12R-30L(5) (S-74, T-100, TT-159) BL4,6,8A,9,10 S5 F5, JP5 U2 **VASI:** Rnwy 12R **RVR:** Rnwy 30L
Remarks: Rgt tfc rnwys 12R, 16R, 30R & 21. Trees apch rnwy 34L. Rnwy 12R threshold displaced 844′ SE. 6400′ avbl lndg rnwy 12R. Rnwy 16R threshold displaced 589′ S. 4406′ avbl lndg rnwy 16R. 1137′ (2049′ MSL) twr 5 NM W. 1199′ (2049′ MSL) twr 7 NM W.
Austin Tower 118.3 126.2 122.5R 109.5T **Gnd Con** 121.9
ATIS[1] 119.2
Radar Services: (BCN)
Austin App Con 124.9 118.8 122.7R 112.5T
Austin Dep Con 120.8
Tfc Info Ctc App Con 25 NM out on 118.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
Tfc Info Contact App Con 25 mi out on 118.8.
ILS 109.5 I-AUS Apch Brg 305° **LOM:** 353/AU
Austin (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.
Austin RBn MHW 353/AU 305° 4.8 NM to fld.
Remarks: [1]Opers 1300-0400Z. LOM is MHW.

BEAUMONT RBn MHW 368/BEM **FSS:** BEAUMONT

BEAUMONT-PORT ARTHUR
§JEFFERSON CO *IFR* 9SE **FSS:** BEAUMONT on Fld
16 H57/11-29(3) (S-65, T-91, TT-170)* BL4,6,8A,9,11 S5 F4, JP1 U2 **RVR:** Rnwy 11 **REIL:** Rnwy 16
Remarks: *Rnwy 16-34 (S-83, T-118, TT-212).

TEXAS—*Continued*

Tower 119.5 122.5R **Gnd Con** 121.9
Beaumont App Con 121.3 122.5R 114.9T
ILS 109.5 I-BPT Apch Brg 114° **LOM:** 257/BP
Beaumont (L) BVOR 114.9/BPT 057° 4.6 NM to fld.

BEEVILLE **FSS:** ALICE
§CHASE (NAAS) FLD 45E
186 H80/13R-31L(3) BL4,6,7
Remarks: Open to civil acft; clsd to acft less than 2600 lbs GWT. Fee. Hvy jet trng tfc.
Tower: 134.1 126.2
Navy Chase (H)VORW 116.6/NIR At fld

BENBROOK (L) VORW 108.8/BEO

BERGSTROM (L) VORW 109.8/BSM
RBn HW 293/BSM

BIG SPRING (L) BVOR 114.3/BGS **FSS:** MIDLAND
RBn SABH 326●/BGS

BORGER (L) BVOR 108.6/BGD

BRAZOS SANTIAGO RBn HW 314/PIL **FSS:** BROWNSVILLE

BRIDGEPORT (L) BVORTAC 116.5/BPR **FSS:** FORT WORTH

BRITTON (L) BVORTAC 117.0/BRT **FSS:** FORT WORTH

BROWNSVILLE
§RIO GRANDE VALLEY INTL *IFR* 4E AOE **FSS:** BROWNSVILLE on Fld
22 H74/13R-31(5) (S-26, T-50, TT-87)* BL4,6,7 S5 F5, JP1 JP4 U2
Remarks: Brush apch 31L. *Rnwy 17R-35L: (S-35, T-56, TT-108). Rnwys 8-26 and 4-22 do not meet air carrier standards for day/ngt operns.
Brownsville Tower 118.1 126.2 122.5R **Gnd Con** 121.9
Brownsville App Con 119.5 126.2 118.1 388T
ILS 110.3 I-BRO Apch Brg 173° **LOM:** 219/BR
Brownsville (H) BVORTAC 116.3/BRO 242° 2.3 NM to fld.

BROWNWOOD (T) BVOR 108.6/BWD **FSS:** ABILENE

BUFFALO (L) VORW 111.4/ARO

CEDAR HILL RBn MHW 353/CDI **FSS:** DALLAS

CHILDRESS (L) BVOR 117.6/CDS **FSS:** CHILDRESS

CLINT (L) BVOR 117.6/CNT **FSS:** EL PASO

COLLEGE STATION
§EASTERWOOD FIELD *IFR* 2SW **FSS:** COLLEGE STATION on Fld
319 H51/10-28(3) (S-30, T-40, TT-) BL4 S3 F4 JP1
Remarks: Services offered dalgt hrs only.
Tower[1] 118.5 126.2 122.5R **Gnd Con** 121.9
College Station App Con[2] 118.5 126.2
College Station (L) BVOR 113.3/CLL 099° 2.5 NM to rnwy 10.
Remarks: [1]Oper 1200-0400Z. [2]App Con from Houston ARTCC 0400-1200Z.

CONNALLY RBn MHW 400/CNW

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§CORPUS CHRISTI INTL *IFR* 5W **FSS:** ALICE (LC TU 4-5712)
43 H56/13-31(2) (S-96, T-108, TT-152) BL4,6,8A,9 S5 F4, TP-1 JP4 U2 **RVV:** Rnwy 13
Remarks: Amber flashing lgt for rgt ptn. US Customs-lndg rts arpt 0800-1700 Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
Tower 120.9 122.5R **Gnd Con** 121.9
Radar Services:
App Con 118.3 125.4 122.7R 134.1
Dep Con 124.8
ILS 110.3 I-CRP Apch Brg 127° **LOM:** 393/CR
(H) BVORTAC 115.5/CRP 191° 7.9 NM to fld.
RBn SBH 382/CRP 216° 2.2 NM to fld.

TEXAS—*Continued*

COTULLA (L) BVORTAC 115.8/COT **FSS:** COTULLA

DAISETTA (L) BVOR 110.6/DAS **FSS:** HOUSTON

DALHART (L) BVORTAC 112.0/DHT **FSS:** DALHART

DALLAS

§ADDISON *IFR* 9N **FSS:** DALLAS (LC FL2–8491)
643 H52/15–33(2) (S–50, T–70, TT–120) BL4 S5 F5 JP1 U2
REIL: Rnwy 15
Remarks: P-line NE.
Tower 121.1 122.7R **Gnd Con** 121.7
Radar Services:
Dallas App Con 125.8[1] 125.2 119.8[2] 110.3T
Dallas Dep Con 119.5
Addison (T) BVOR 111.4/ADS on fld.
Remarks: [1]127°–307° [2]308°–126°.

§DALLAS LOVE FIELD *IFR* 5NW **FSS:** DALLAS on Fld
485 H88/13R–31L(3) (S–100, T–150, TT–350) BL4,6,8A,9,10,11,14 S5 F5,JP4 U2 **VASI:** Rnwy 31R **REIL:** Rnwy 31R
RVR: Rnwy 13L
Remarks: U.S. Customs lndg rgts arpt 0030–1430 Mon-Fri, 0030–1630 Sat. Req arrival notice be forwarded customs when filing flt plan in Canada, Mexico or Cuba. Due lgt reflections during hrs darkness ctc twr for restrictions.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del 121.6
ATIS 120.7
Radar Services:
Dallas App Con 119.8[2] 125.2 125.8[3] 122.5R 111.4T 110.3T
Dallas Dep Con 119.5
Tfc Info Ctc App Con 25 mi out
PAR [5]Rnwy 13L Ceil 200 Vsby ½ mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I–DAL Apch Brg 128° **LOM:** 371/DA
Dallas (H) BVORTAC 114.6/DAL 220° 15.6 NM to fld.
VHF/DF Ctc twr.
Remarks: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°–307° [3]308°–126° [4]Glide slope unusable below 677′ MSL due roughness. BC approved for auto apchs. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas App Con on 125.8. Acft apchg from N and E side of lclzr crs should ctc Dallas App Con on 119.8. [5]Radar monitoring of instrument apchs only at pilot's request. **VOT:** 111.0.

§RED BIRD *IFR* 6SW **FSS:** DALLAS (LC FL2–8491)
660 H44/13–31(2) (S–35, T–60, TT–110) BL4 S5 F4, JP1 U2
Remarks: 1521′ (2349′ MSL) twr 7.5 NM SW.
Tower[3] 120.3 122.6R **Gnd Con:** 121.7
Radar Services:
Dallas App Con 125.8[1] 119.8[2] 125.2 122.5R 114.4T 110.3T
Dallas Dep Con 119.5
Remarks: [1]127°–307° [2]308°–126° [3]Oper 1200–0400Z.

DUNCANVILLE RBn MHW 287/DCV **FSS:** DALLAS

DYESS (L) VOR 109.2/DYS
RBn MHW 201/DYS

EAGLE LAKE (L) BVOR 108.6/ELA **FSS:** HOUSTON

EAGLE MOUNTAIN LAKE (L) VORW 108.4/EWX

ELLINGTON (T) VORW 111.6/EFD

§EL PASO INTL *IFR* 4NE (AOE) **FSS:** EL PASO on Fld
3956 H120/4–22(3) (S–95, T–156, TT–280) BL4,5,6,8A,9,11 S5 F5,JP1, JP4 U2 **RVV:** Rnwy 22 **REIL:** Rnwy 26
Remarks: Rnwy 4 threshold displaced 1000′ NE. 11,000′ avbl lndg rnwy 4. Rnwy 17 threshold displaced 395′ S. 6606′ avbl lndg rnwy 17.

TEXAS—*Continued*

Tower 118.3 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
Dep Con 119.1
Tfc Info: Expanded radar service avbl
ASR Rnwys 22,26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I–ELP Apch Brg 218° **LOM:** 266/EL
(H) BVORTAC 114.5/ELP 257° 3.8 NM to fld.
RBn H–SAB 242●/ELP 258° 3.2 NM to fld.
Remarks: [1]BC not avbl; overlies Mexico. **VOT:** 111.0.

FORT STOCKTON (H) BVORTAC 112.8/FST **FSS:** WINK

FORT WORTH

§GREATER SOUTHWEST INTL DALLAS-FT. WORTH FLD *IFR* 16NE **FSS:** FORT WORTH (DL)
568 H90/17–35(2) (S–83, T–120, TT–210) BL4,6,8A,9 S3 F5 U2 **RVR:** Rnwy 13
Remarks:1074′ (1679′ MSL) twr 10.5 NM WSW.
Southwest Tower 120.5 126.2 122.7R **Gnd Con** 121.8
Radar Services:
Fort Worth App Con 118.1 126.2 122.7R 119.6 109.5T 110.6T
Fort Worth Dep Con 123.9 122.7R
Tfc Info Ctc App Con 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I–GSW Apch Brg 129° **LOM:** 219/GS
Greater Southwest (L) BVORTAC 110.6/GSW at fld.
VHF/DF Ctc twr.
Remarks: **VOT:** 111.8.

§MEACHAM FIELD *IFR* 5N **FSS:** FORT WORTH on Fld
692 H52/17–35(3) (S–60, T–80, TT–) BL4,6,7,8A,9 S5 F5, JP5 U2 **RVV:** Rnwy 17
Remarks: P-line SE.
Tower[1] 118.3 126.2 122.7R **Gnd Con** 121.9
Radar Services:
Fort Worth App Con 119.6 126.2 122.7R 118.1 109.5T
Fort Worth Dep Con 123.9 122.7R
ILS 109.9 I–FTW Apch Brg 174° **LOM:** 365/FT
Fort Worth RBn H–SAB[2] 365●/FT 174° 3.5 NM to rnwy 17
Remarks: [1]Oper 1300–0500Z. Wea bcsts discontd 2400–0500 excp forecast. LOM is H–SAB. **VOT:** 108.2.

GALVESTON (L) BVORTAC 112.8/GLS **FSS:** GALVESTON
RBn HH–SAB[1] **206●/GLS**
Remarks: [1]Ctld by Houston FSS.

GLAD OAKS MHW 215/ALC

GRAY RBn HW 323/GRK

GREENVILLE

§MAJORS FIELD *IFR* **4SE** **FSS:** DALLAS
544 H80/17–35(2) S–26, T–50, TT–) BL4 S5 F4
Remarks: Rgt tfc rnwy 17.
Tower[1] 121.3 122.5R **Gnd Con** 121.7
Remarks: [1]Oper 1330–2200Z excp Sat & Sun.

GUTHRIE (L) BVOR 112.4/GTH **FSS:** CHILDRESS

HARLINGEN (L) BVOR 108.8/HRL **FSS:** BROWNSVILLE

HOOD (L) VORW 111.8/HLR
RBn MHW 347/HLR

TEXAS—*Continued*

HOUSTON
§WILLIAM P HOBBY *IFR* 8SE **FSS:** HOUSTON on Fld
48 H76/3–21(3) (S–75, T–107, TT–185) BL4,6,8A, 9, 10 S5 F5, JP4 U2 **RVR:** Rnwy 3 **VASI:** Rnwy 12
Remarks: U.S. Customs lndg rgts arpt 0800–1700 Mon-Sat, req arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. First 150′ pavement adj ends rnwys 12–30, 3–21 not usable for lndgs or taxg acft; usable rnwy pavement begins 25′ beyond green threshold lgts. Soft backfill along both sides NW/SE rnwy.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
‡Clrnc Del: 127.6
ATIS 119.7
Radar Services:
App Con 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T
Dep Con 120.2 126.2
Tfc Info. Expanded radar service avbl.
ASR Rnwys 3, 12, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 448
Rnwys 17 Ceil 500 Vsby 1 mi Min Alt 548
ILS 109.9 1–HOU Apch Brg 036° **LOM:** 251/HO
Houston (H) BVORTAC 115.9/HOU on fld.
VHF/DF Ctc twr.
Remarks: [1]218°–008° [2]009°–217° **VOT:** 111.0

HUDSPETH (L) VORW 115.0/HUP **FSS:** EL PASO

HYMAN (L) BVOR 110.4/HYM **FSS:** MIDLAND

INDUSTRY (L) BVOR 110.2/IDU **FSS:** COLLEGE STATION

JASPER RBn MHW 344/JAS **FSS:** LUFKIN

§JOHNSON CITY *IFR* 10W **FSS:** AUSTIN
1515 H63/17–35(1) L4,11 U1 **REIL:** Rnwy 35
Tower[1] 126.2
Radar Services:
Austin App Con 124.9 118.8 122.7R
Austin Dep Con 120.8
RBn MH 393/JCY 346° 2 NM to fld.
Remarks: [1]Wea and alt setting avbl when twr is in opern.

JUNCTION (H) BVORTAC 116.0/JCT **FSS:** SAN ANTONIO

KELLY (L) VORW 113.8/SKF
RBn MHW 245/SK

KINGSVILLE (T) VOR 109.6/NQI

§LAREDO MUNI *IFR* 6N (AOE) **FSS:** COTULLA (LC RA2-3612)
524 H49/15–33(1) (S–25, T–37, TT–) BL4 S3 F4 U1
Remarks: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T.
VFR ADV Ctc Laredo App Con on 126.2, 122.5R, 118.5T.
(H) BVORTAC 117.4/LRD 316° 9.3 NM to rnwy 33.

LAUGHLIN (L) VOR 114.4/DLF
RBn H 287/DLF

LA VERNIA (L) BVOR 112.0/LVR **FSS:** SAN ANTONIO

LEONA (L) BVORTAC 110.8/LOA **FSS:** COLLEGE STATION

LLANO (L) BVOR 108.2/LLO **FSS:** AUSTIN

LOMETA (L) BVORTAC 117.9/MTA **FSS:** AUSTIN

LONE STAR RBn MHW 305/LST **FSS:** GREGG COUNTY

LONGVIEW
§GREGG COUNTY MUNI *IFR* 6SE **FSS:** GREGG COUNTY on Fld
365 H61/17–35(3) (S–75, T–100, TT–) BL4,6 S5 F4 JP1 U2 **RVV:** Rnwy 13
Tower 118.9 122.5R **Gnd Con** 121.9
ILS 109.5 I–GGG Apch Brg 127° **LOM:** 410/GG
Gregg County (L) BVORTAC 112.4/GGG 126° 2.3 NM to rnwy 13.

§LUBBOCK MUNI *IFR* 4NE **FSS:** LUBBOCK on Fld
3269 H85/17R–35L(5) (S–90, T–150, TT–250) BL5,6,8A,9 S5 F4,JP1 U2 **RVV:** Rnwy 17R
Remarks: Rnwy 35L threshold displaced 900′ N. 7600′ avbl lndg rnwy 35L. Clsd to tactical mil jet acft.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 118.1 125.8 112.9T 109.5T 110.8T
Dep Con 119.3
Tfc Info: Ctc App Con 25 mi out.
ASR [1]Rnwys 8, 17R, 26 Ceil 400 Vsby 1 mi Alt 3669
ILS 109.5 I–LBB Apch Brg 169° **LOM:** 219/LB
(L)BVORTAC 110.8/LBB 112° 5.2 NM to Rnwy 12
Remarks: [1]Oper 1200–0400Z.

LUFKIN (H) BVORTAC 112.1/LFK **FSS:** LUFKIN

MAJORS (L) VOR 110.0/GVT

MARFA (L) BVOR 115.9/MRF **FSS:** EL PASO

MATAGORDA ISLAND (L) VOR 116.4/MGI
Remarks: Opers 1415–2215Z

McALLEN
§MILLER INTL *IFR* 2S (AOE) **FSS:** McALLEN on Fld
106 H49/13–31(2) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 13
Remarks: Rnwy 31 threshold displaced 542′ NE.
McAllen Tower [1]118.9 122.5R **Gnd Con** 121.9
McAllen App Con 118.9
Brownsville App Con[2] 119.5 126.2 118.1
McAllen (L) BVOR 109.8/MFE on fld
VHF/DF Ctc FSS.
Remarks: [1]Oper 1200–0400Z. [2]Oper 0400–1200Z.

§MIDLAND AIR TERMINAL *IFR* 8SW **FSS:** MIDLAND on Fld
2870 H83/10–28(4) (S–100, T–128, TT–280) BL4,6,8A,9 S5 F5,JP2 U2 **RVV:** Rnwy 10
Remarks: Rnwy 34L threshold displaced 627′ N. 6902′ avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698′ NW. 7602′ avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303′ NE. 5197′ avbl lndg rnwy 4. 1137′ (4049′ MSL) twr 10 NM NNW.
Tower 118.7 126.2 122.5R **Gnd Con** 121.9
App Con 121.1 122.5R 114.8T 110.3T
ILS 110.3 I–MAF Apch Brg 103° **LOM:** 344/MA
(L) BVORTAC 114.8/MAF 181° 3.4 NM to fld.
VHF/DF Ctc FSS

§MINERAL WELLS 3SE IFR **FSS:** MINERAL WELLS on Fld
964 H42/13–31(3) BL4 S5 F5
Remarks: Rnwy 17–35 clsd to air carrier use due TV ant lctd on end rnwy 17. Helicopter trng 1200–0600 daily. Ctc MWL rdo for advisory. Rgt tfc rnwy 17, 31.
Tower[1] 119.0 124.15 122.5R **Gnd Con** 121.7
(H) BVORTAC 117.7/MSL
RBn BMH 284/MWL
Remarks: [1]Opers 1200–0600Z Mon-Fri excp holidays.

NAVASOTA (L) BVOR 109.6/TNV **FSS:** COLLEGE STATION

NAVY CHASE (H)VORW 116.6/NIR

NAVY CORPUS (L) VORW 109.2/NGP
RBn MHWZ 248/NGP

NEWMAN (L) BVOR 112.4/EWM **FSS:** EL PASO

PALACIOS (L) BVORTAC 117.3/PSX **FSS:** PALACIOS

PARIS (L) BVOR 113.6/PRX **FSS:** DALLAS

PASADENA RBn MHW 245/PDA **FSS:** HOUSTON

PECOS (L) BVOR 111.8/PEQ **FSS:** WINK

PERRYTON RBn MHW 266/PYX **FSS:** GAGE
Remarks: VFR use only.

TEXAS—*Continued*

PLAINVIEW
§HALE COUNTY *IFR* 1S **FSS:** AMARILLO (LC CA 3-2148)
3372 H52/4-22(2) (S-30, T-40, TT) BL4 S5 F4 U2
Remarks: Hangar NE.
Plainview Tower[1] 118.9 122.5R **Gnd Con** 121.7
Lubbock App Con 118.1 126.2 112.9T
Plainview (L) BVOR 112.9/PVW 023° 6.0 NM to fld.
Remarks: [1]Oper 1200-0400Z.

QUITMAN (L) VORW 114.0/UIM **FSS:** TYLER

RANDOLPH RBn HW 359/RND

ROCKSPRINGS (L) BVORTAC 111.2/RSG **FSS:** SAN ANTONIO

SABINE PASS (L) BVORTAC 115.4/SBI **FSS:** BEAUMONT

SALT FLAT (L) BVORTAC 113.0/SFL **FSS:** EL PASO

SAN ANGELO
§MATHIS FIELD *IFR* 7SW **FSS:** SAN ANGELO on Fld
1915 H59/3-21(3) (S-35, T-56, TT-) BL4,8A,9 S5 F4 JP1 U2 **RVV:** Rnwy 3
Remarks: Rnwy 9-27 clsd to acft over 25,000 lbs GWT.
Tower 118.3 122.5R **Gnd Con** 121.9
San Angelo App Con 119.7 118.3 122.5R 115.1T 109.7T
ILS 109.7 I-SJT Apch Brg 033° **LOM:** 356/SJ
San Angelo (H) BVORTAC 115.1/SJT 235° 1.8 NM to rnwy 21.

§SAN ANTONIO INTL *IFR* 7N **FSS:** SAN ANTONIO on Fld
808 H85/12-30(3) (S-150, T-225, TT-300) BL4,6,8A,9 S5 F4, JP1 U2 **RVR:** Rnwy 3, 12
Remarks: U.S. customs lndg rgts arpt 1000-2000 Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324′ NW. Usable lndg length 5128′. Rnwy 17 usable lndg length 5452′. Rnwy 3-21 usable length 4519′.
Tower 118.9 122.5R **Gnd Con** 121.9
Clrnc Del 127.3
Radar Services:
App Con 120.3 134.1 126.5 126.2R 122.5R 110.9T 109.7T **Dep Con** 123.9
Tfc Info Ctc App Con 25 mi out.
ASR Rnwys 3, 12, 21, 30, Ceil 400 Vsby 1 mi Min Alt 1208 Min Alt 1208
ILS 110.9 I-ANT Apch Brg 123° BC unusable **LOM**[1]: 254/AN
109.7 I-SAT Apch Brg 032° **LOM:** 219/SA
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
RBn HW 254/AN
VHF/DF Ctc twr.
Remarks: [1]LOM is HW. VOT: 110.4.

SAN ANTONIO
§STINSON MUNI *IFR* 5S **FSS:** SAN ANTONIO (LC TA 6-9575)
577 H48/9-27(3) (S-40, T-75, TT-) BL5 S5 F4
Remarks: Tfc 800′ above terrain 1367′ MSL. Rnwy 14 threshold displaced 600′ SE; rnwy 32-400′ NW.
Tower[1] 119.5 122.7R **Gnd Con** 121.7
Radar Services:
San Antonio App Con 120.3 134.1 126.5 126.2R 122.7R
San Antonio Dep Con 123.9
Stinson (T) BVOR 108.4/SSF 337° 4.5 NM to fld
Remarks: [1]Oper 1300-0500Z.

SEGUIN RBn HW 371/UCT
Remarks: VFR only. Opers daylight hours Mon-Fri.

SPACELAND RBn MHW 362/SPX **FSS:** HOUSTON
Remarks: VFR use only.

SULPHUR SPRINGS (L) BVORTAC 109.0/SLR **FSS:** DALLAS

TANK RBn BH 388/DDA **FSS:** DALLAS

TEMPLE (L) BVOR 110.4/TPL **FSS:** WACO

TEXICO (H) BVORTAC 112.2/TXO **FSS:** TUCUMCARI

TRADEWIND RBn MHW 338/AM **FSS:** AMARILLO

TYLER
§POUNDS FIELD *IFR* 4W **FSS:** TYLER on Fld
544 H52/13-31(3) (S-40, T-60, TT-100) BL5,6,8A,9 S5 F4, JP1 U2
Remarks: Rnwy 17 threshold displaced 250′ S. 4803′ avbl lndg rnwy 17.
Tower 120.1 122.5R **Gnd Con** 121.9
Tyler App Con 124.1 122.5R 109.9T
ILS 109.9 I-TYR Apch Brg 127° **LOM:** 320/TY
Tyler RBn HW 320/TY 127° 4.6 NM to fld
Remarks: LOM is HW.

VICTORIA (L) BVOR 111.4/VCT **FSS:** PALACIOS (512) 445-1281

§WACO MUNI *IFR* 5NW **FSS:** WACO on Fld
515 H57/18-36(3) (S-26, T-38, TT-)* BL4,6,8A,9 S5 F5 U2 **RVV:** Rnwy 18
Remarks: *Rnwy 14-32 (S-57, T-68, TT-104) Rnwy 5 threshold displaced 453′ E. Usable length rnwy 23-5500′; rnwy 5-5049′.
Tower 119.9 126.2 122.5R **Gnd Con** 121.9
App Con 119.3 122.5R 115.3T
Dep Con 125.4
ILS 109.7 I-ACT Apch Brg 185° **LOM:** 242/AC
(H) BVORTAC 115.3/ACT 141° 3.0 NM to fld.

WICHITA FALLS
§SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5N **FSS:** WICHITA FALLS on Fld
1015 H131/15-33(2) (S-65, T-300, TT-530) BL4,6,8A,9,10 S5 F4, JP1 JP5 U2 **VASI:** Rnwy 33 **RVV:** Rnwy 15
Remarks: Overhead tfc ptn 2700′ rectangular tfc ptn 2200′ MSL. Rgt tfc rnwys 17 & 33. Rnwy 17-35 GWT 20,000 lbs or less UFN.
Sheppard Tower 119.1 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Sheppard App Con 118.2 122.5R 109.7T
Sheppard Dep Con 118.2 120.4
ILS 109.7 I-SPS Apch Brg 329° **LOM:** 296/SP
Wichita Falls (H) BVORTAC 112.7/SPS 078° 5.1 NM to fld.
RBn HW 296/SP 329° 3.9 NM to rnwy 33.
VHF/DF Ctc FSS.
Remarks: LOM is HW.

WINK (H) BVORTAC 112.1/INK **FSS:** WINK

UTAH

BONNEVILLE (H) BVORTAC 112.3/BVL **FSS:** SALT LAKE CITY

BRYCE CANYON (H) BVORTAC 112.8/BCE **FSS:** BRYCE CANYON

CEDAR CITY (L) BVOR 108.6/CDC **FSS:** CEDAR CITY

CORINNE RBn MHW 344/COU

DELTA (L) BVORTAC 117.6/DTA **FSS:** SALT LAKE CITY (DL)
RBn SABH 212●/DTA

DUGWAY RBn MH 284/DPG

HANKSVILLE (H) BVORTAC 115.9/HVE **FSS:** CEDAR CITY

LA SAL (L) BVORTAC 112.9/LXL **FSS:** GRAND JUNCTION

LUCIN (L) BVOR 115.7/LCU **FSS:** SALT LAKE CITY

UTAH—*Continued*

MILFORD (H) BVORTAC 112.1/MLF **FSS:** CEDAR CITY

MYTON (L) BVORTAC 117.9/MTU **FSS:** GRAND JUNCTION

§OGDEN MUNI *IFR* 3SW **FSS:** SALT LAKE CITY (LC 394–8712)
4455 H73/3–21(3) (S–100, T–160, TT–280) BL4,11 S5 F4 JP1 U2 **REIL:** Rnwy 3
Remarks: Rgt tfc rnwy 16, 21 & 25. Arrival acft ctc Hill AFB apch ctl. Rnwy 21 theshold displaced 1000′ NE end. 6300′ avbl lndg day/nt rnwy 21 and tkof rnwy 3. Rnwy 25 threshold displaced 476′ E end. 5123′ avbl lndg rnwy 25, tkof rnwy 7; 5599′ avbl lndg rnwy 7 and tkof rnwy 25.
Tower[1] 118.7 122.5R ~~121.5~~ **Gnd Con** 121.7
Radar Services:
Hill App Con 120.2 132.9 124.1 122.5R 121.1
Hill Dep Con 121.1
Tfc Info Ctc App Con aprx 20 mi out.
ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
(H) BVORTAC 113.6/OGD 098° 3.7 NM to fld.
RBn SABH 263●/OGD 102° 3.2 NM to fld.
VHF/DF Ctc FSS and twr.
Remarks: [1]Oper 1300–0500Z.

PROVO (H) BVORTAC 116.6/PVU **FSS:** SALT LAKE CITY (LC 374–6327)

§SALT LAKE CITY MUNI NO. 1 *IFR* 4W **FSS:** SALT LAKE CITY on Fld
4226 H100/16R–34L(2) (S–100, T–150, TT–240)
BL4,6,7,8A,9,10 S5 F5,JP1 U2 **VASI:** Rnwy 16R
RVR: Rnwy 34L
Remarks: *Rnwy 16L–34R (S–100, T–150, TT–300). Rnwy 14–32 restricted to acft in excess of 35,000 lbs. No mil service or crash facils avbl excp 1500–2330Z Mon-Fri. No service holidays.
Salt Lake Tower 118.3 122.7R **Gnd Con** 121.9
ATIS: 109.5
Radar Services: (BCN)
Salt Lake App Con 120.9 122.7R 116.8T
Salt Lake Dep Con 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I–SLC Apch Brg 339° **LOM:** 239/SL
(H) BVORTAC 116.8/SLC 159° 2.9 NM to rnwy 16R
VHF/DF Ctc FSS
Remarks: **VOT:** 111.0.

VERNAL (L) BVOR 108.2/VEL **FSS:** GRAND JUNCTION

VERMONT

§BURLINGTON MUNI *IFR* 2E AOE **FSS:** MONTPELIER (LC 878–3393)
335 H78/15–33(2) (S–62, T–110, TT–195) BL5,6,8A,9 S5 F5, JP1, JP4 U2 DT2 **RVV:** Rnwys 15 and 33
Tower 118.3 122.5R 110.3T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 121.1 122.5R 110.3T
Dep Con 119.2
ILS 110.3 I–BTV Apch Brg 146° BC unusable **LOM:** 219/BT
(L) BVOR 112.4/BTV 033° 4.3 NM to fld.
RBn H–SAB 323●/BTV 155° 1.8 NM to fld.
VHF/DF Ctc twr
Remarks: **VOT:** 109.0.

MONTPELIER (L) BVOR 108.2/MPV **FSS:** MONTPELIER
RBn MHW 257/MPV

NEWPORT RBn MHW 242/EFK **FSS:** MONTPELLER

RUTLAND RBn MHWZ 391/RUT **FSS:** GLENS FALLS

SPRINGFIELD RBn MHWZ 275/SFD **FSS:** LEBANON

VIRGINIA

BLACKFORD (L) BVOR 110.2/BLA **FSS:** BLUEFIELD

BLACKSTONE RBn MHW 326/BKT **FSS:** BLACKSTONE (0600–2200)
FSS: RICHMOND (2200–0600)

BROOKE (L) BVORTAC 111.8/BRV **FSS:** WASHINGTON

CAPE CHARLES (L) BVORTAC **FSS:** NEWPORT NEWS
112.2/CCV

CASANOVA (L) BVORTAC 109.6/CSN **FSS:** WASHINGTON

CHARLOTTESVILLE
§CHARLOTTESVILLE-ALBEMARLE *IFR* 7N
FSS: CHARLOTTESVILLE on fld
640 H60(1) BL6,9,11 S5 F4 JP5 U1 DT2 **REIL:** Rnwy 3
Remarks: Rnwy 21 threshold displaced 270′ SW.
ILS 109.1 I–CHO Apch Brg 027°
Charlottesville RBn MHW 229/AOM 027° 7.7 NM to Rnwy 03.

CLIFDALE (L) BVOR 110.0/CLD **FSS:** ROANOKE

CLOVERDALE RBn MHW 359/CLV

DANVILLE (L) BVOR 113.1/DAN **FSS:** DANVILLE

ECLIPSE RBn HW 209/NGU

EVINGTON RBn MHW 385/EVI **FSS:** ROANOKE

FELKER (T) VOR 111.4/FAF
RBn MH 226/FAF

FENTRESS (T) VOR 114.9/NTU
RBn MHW 356/NTU

FLAT ROCK (H) BVORTAC 113.3/FAK **FSS:** RICHMOND

FRANKLIN (L) BVORTAC 110.6/FKN **FSS:** NEWPORT NEWS
RBn H 362/FKN. **Private facility**

FRONT ROYAL (H) BVORTAC 115.3/FRR **FSS:** MARTINSBURG

GORDONSVILLE (H) BVORTAC **FSS:** CHARLOTTESVILLE
115.6/GVE

HARCUM (L) BVOR 108.8/HCM **FSS:** NEWPORT NEWS

HERNDON (H) BVORTAC 116.3/HRN **FSS:** WASHINGTON

HOPEWELL (L) BVORTAC 112.0/HPW **FSS:** RICHMOND

HOT SPRINGS RBn MHWZ 224/HSP **FSS:** ROANOKE
Remarks: **Private Facility**

LANGLEY (L) VOR 111.6/LFI

LAWRENCEVILLE (L) BVOR 112.9/LVL **FSS:** BLACKSTONE
Voice 0600–2200

LESLIE RBn MHW 335/LLE **FSS:** ROANOKE

LINDEN (L) BVORTAC 114.3/LDN **FSS:** WASHINGTON

§LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW
FSS: ROANOKE (LC 846–3942)
942 H58/3–21(3) (S–60, T–80, TT–120) BL6,8A,9 S5 F4 JP1 U2 DT **RVV:** Rnwy 3.
Remarks: DT May 30–Sep 6.
Lynchburg Tower 120.7 122.5 R **Gnd Con** 121.9
Lynchburg App Con 118.0 122.5R 120.7
ILS[1] 110.1 I–LYH Apch Brg 032°
Lynchburg (L) BVORTAC 109.2/LYH 025° 4.0 NM to fld.
Remarks: [1]BC unusable below 3500′ MSL beyond 20 NM.

MANAKIN MHW 341/MNV

MONTEBELLO (L) BVOR **FSS:** CHARLOTTESVILLE
112.6/MOL

MORRISON RBn MHW 248/MOV

NAVY NORFOLK SMRLWZ 269/NGU

VIRGINIA—*Continued*

NEWPORT NEWS

§PATRICK HENRY *IFR* 9NW **FSS:** NEWPORT NEWS on Fld
41 H61/6–24(2) (S–85, T–120, TT–215) BL4,6,8A,9 S5
F5, JP1 U2 DT **RVR:** Rnwy 6
Remarks: Fee in lieu of fuel for acft over 12,500 lbs. DT May 30–Sep 5.
Tower 118.7 122.7R 110.1T 317T **Gnd Con** 121.9
Radar Services: (BCN)
Norfolk App Con 125.7
Norfolk Dep Con 118.5
Tfc Info: VFR Adv service ctc Norfolk App Con 25 mi out.
ILS 110.1 I–PHF Apch Brg 065° **LOM:** 375/PH
Remarks: BC unusable below 1500′ MSL beyond 5 NM.

§NORFOLK MUNI *IFR* 5NE **FSS:** NEWPORT NEWS (DL)
27 H60/4–22(3) (S–70, T–100, TT–180) BL4,6,8A,9 S5
F5, JP1 U2 DT **RVV:** Rnwy 4
Remarks: DT May 30–Sep 5. Rgt tfc rnwy 1, 4, 13. U.S. Customs lndg rgts arpt. Rnwy 13 threshold displaced 214′ SE. 4662′ avbl lndg rnwy 13. 4876′ avbl lndg rnwy 31 and tkof rnwy 13. Rnwy 19 threshold displaced 966′ SW. 4034′ avbl lndg rnwy 19; 5000′ avbl lndg rnwy 1 and tkof rnwys 1 and 19. Ngt operns SW 4050′ avbl tkof and lndg both directions. Rnwy 1–19 avbl single and twin eng acft only. Multi-eng acft prohibited from making eng runup when facing SE at the apch end of rnwy 4. Fuel & services avbl 0600–2300.
Tower 121.1 122.5R 109.1T **Gnd Con** 121.9
Radar Services: (BCN)
App Con 127.2 125.7 **Dep Con** 118.5 126.8
Tfc Info: Expanded radar service avbl 118.9.
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526
ILS 109.1 I–ORF Apch Brg 045° **LOM:** 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF Ctc twr.

PULASKI (H) BVORTAC 115.9/PSK **FSS:** BLUEFIELD
Rng SBMRAZ[1] 272/PK
Remarks: [1]Reliable reception distance 40 NM.

RICHMOND

§RICHARD E. BYRD FLYING FIELD *IFR* 6 E **FSS:** RICHMOND on Fld
167 H90/15–33(3) (S–100, T–150, TT–270) BL4, 6, 8A, 9 S5
F5, JP1, JP4 U2 DT **RVV:** Rnwy 6
Remarks: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33. 1000′ operrun each end rnwy 15–33. DT May 30-Sep 5.
Richmond Tower 119.5 126.2 122.5R 110.3T **Gnd Con** 121.9
Clrnc Del 121.9
Radar Services: (BCN)
Richmond App Con 119.0 126.2 122.5R 119.9 110.3T
Richmond Dep Con 118.2
Tfc Info: Lndg acft ctc App Con 35 mi out on 119.9
ASR Rnwys 2, 15,[1] 20, 24,[1] 33[1] Ceil 400 Vsby 1 mi Min Alt 567
Rnwy 6 Ceil 500 Vsby 1 mi Min Alt 667
ILS 110.3 I–RIC Apch Brg 063° BC unusable **LOM:** 382/RI
Richmond (H) BVORTAC 114.1/RIC on fld.
Richmond SBH 260/RIC 018° 1.7 NM to fld.
Remarks: [1]400–¾ authorized, excep for 4 eng turbojet acft, with operative hi intensity rnwy lgts. **VOT** 110.8.

§ROANOKE MUNI *IFR* 3 NW **FSS:** ROANOKE on Fld
1174 H58/15–33(3) (S–70, T–100, TT–175) BL4, 8A, 9, 11 S5
F5, JP1 U2 DT **REIL:** Rnwy 23
Remarks: (S–30) rnwys 5–23 and 15–33. (S–10) rnwy 9–27. DT May 30–Sep 6.
Tower 118.3 120.2 122.5R **Gnd Con** 121.9
Radar Services: (BCN)
App Con 126.9 122.5R 120.2 109.0T
Dep Con 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374
Roanoke (L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
Roanoke RBn H–SAB 371●/ROA 354° 1.5 NM to fld.

SOUTH BOSTON (L) BVORTAC 110.4/SBV **FSS:** DANVILLE

SPRINGFIELD RBn MHW 353/SRI **FSS:** WASHINGTON

WOODRUM (T) VOR 109.0/ODR **FSS:** ROANOKE

WASHINGTON

BELLINGHAM (L) BVORTAC 113.0/BLI **FSS:** BELLINGHAM

EDIZ HOOK RBn MHWZ 322/K

ELLENSBURG (L) BVORTAC 117.9/ELN **FSS:** WENATCHEE

EPHRATA (H) BVOR 116.8/EPH **FSS:** EPHRATA

EVERETT

§PAINE FIELD *IFR* 6 SW **FSS:** SEATTLE (DL)
603 H90/16–34(2) (S–100, T–200, TT–400) BL6, 8A, 9 S5
F4, JP4 U2 DT2
Remarks: Rnwy 11 threshold displaced 1600′. Due constr twr unable observe portion rnwy 34 starting 1000′ from apch end and extending aprxly 2000′.
Tower 121.3 126.2 122.5R
Radar Services:
Seattle Center App Con 121.2
ASR Rnwy 16 Ceil 200 Vsby ½ mi Min Alt 803
ILS 109.3 I–PAE Apch Brg 158° **LOM:** 396/PAE
Everett (L) VOR 114.2/PAE on fld.
Everett RBn HW 396/PAE 158° 7.9 NM to fld
Remarks: LOM is HW.

GRAY RBn MH 216/GRF

HOQUIAM (H) BVORTAC 115.4/HQM **FSS:** HOQUIAM
Remarks: Restricted to awy and apch only.

KITSAP RBn MHW 206/PWT **FSS:** SEATTLE
Remarks: Operd by County.

MOSES LAKE **FSS:** EPHRATA (DL)
GRANT COUNTY 5.5 NW
1186 H135/14L–32R(3) BL5,6 **RVV:** Rnwys 14L, 32R
Remarks: Apch lgts unattended when twr not in opern. 1000′ asphalt overrun rnwys 32R/14L and 3/21.
Tower[1] 118.1 122.7R 117.0T **Gnd Con:** 121.7
ILS 109.5 I–MWH **LOM:** 408/MW
Moses Lake (L) VOR 117.0/MWH
Moses Lake RBn MHW 408/MW
Remarks: [1]Oper 0700–2300 lcl time. Rgt tfc 32R and 14R. [2]RBn, ILS & VOR VFR practice only; monitored during hrs twr in opern. LOM is MHW.

NEAH BAY RBn HW 391/EBY **FSS:** SEATTLE

OLYMPIA (L) BVORTAC 108.2/OLM **FSS:** SEATTLE

PASCO (L) BVOR 108.4/PSC **FSS:** WALLA WALLA

PORT ANGELES (L) BVOR 108.4/CLM **FSS:** SEATTLE

PULLMAN (L) BVOR 109.0/PUW **FSS:** WALLA WALLA

§RENTON MUNI *IFR* Adj NW **FSS:** SEATTLE (LC RO 2–4000
29 H53/15–33(1) (S–100, T–190, TT–300) BL5 S5
F4, U2 JP4 DT2
Remarks: Rnwy 33 threshold displaced 1000′. Rgt tfc rnwy 33. Lgt gun signals not visible 195–300° at 1000′ MSL beyond 2 mi.
Tower[1] 118.9 122.7R ~~121.5~~ **Gnd Con** 121.9
Seattle Dep Con 119.2
Remarks: [1]Oper 0700–2300 lcl time.

WASHINGTON—*Continued*

SEATTLE
§KING COUNTY ARPT, BOEING FIELD ***IFR*** 4 S **FSS:** SEATTLE on fld
17 H1000/13–31(2) (S–100, T–160, TT–290)* BL6, 11, 12 S5 F5, JP1 U2 DT2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
Remarks: *Rnwy 12–30 (Max–12.5)
Boeing Tower 118.3 122.5R 248T **Gnd Con** 121.9
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2
ILS[1] 110.9 I–BFI Apch Brg 128° BC unusable **LOM:** 260/BF
Seattle RBn SABH 362/SEA 290° 2.1 NM to fld.
Remarks: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 NM 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 NM of LOM below 3000′ beyond 15° E of cntrline.

§SEATTLE-TACOMA INTL ***IFR*** 10 S **FSS:** SEATTLE (DL)
428 H119/16–34(2) S–45, T–145, TT–300) BL4,6,8A,9,14 S5 F5, JP1, JP4 DT2 **RVR:** Rnwy 16, 34
Remarks: U.S. Customs Indg rgts arpt.
Tower 119.9 123.9 122.6R **Gnd Con** 121.7
Radar Services: (BCN)
Seattle App Con 119.5 123.9 125.9 122.6R 114.5T
Seattle Dep Con 119.2 123.9
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I–SEA Apch Brg 338° BC unusable **LOM:** 224/SE
111.5 I–SZI[1] Apch Brg 158° **LOM:** 281/SZ
Seattle (H) BVORTAC 114.5/SEA at fld.
VHF/DF Ctc twr.
Remarks: [1]Caution required in use auto pilots on glide slope from MM to touchdown. Lclzr unusable beyond 20 NM below 2600′. Both systems not operd simultaneously.

§SPOKANE INTL ***IFR*** 5 S **FSS:** SPOKANE
2372 H90/3–21(2) (S–100, T–200, TT–350) BL5, 6, 8A, 9 F5 JP1, JP4 DT2 **RVV:** Rnwy 3 **RVR:** Rnwy 21
Remarks: Rgt tfc rnwy 3 and 7.
Tower 118.3 122.5R ~~121.6~~ **Gnd Con** 121.9.
Radar Services: (BCN)
App Con 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
Dep Con 124.3
Tfc Info Ctc Spokane App Con aprx 20 mi out.
ILS 109.9 I–GEG Apch Brg 205° **LOM:** 236/GE
(H) BVORTAC 115.5/GEG 027° 4.5 NM to fld
RBn SABH 365●/GEG 271° 4.3 NM to fld
Remarks: **VOT:** 109.6

TACOMA INDUSTRIAL RBn MHW 373/TIW **FSS:** SEATTLE

WALLA WALLA
CITY COUNTY ***IFR*** 3NE **FSS:** WALLA WALLA on fld
1205 H72/2–20(3) BL4, 6, 8A, 9 S5 F4 DT2
Remarks: 1030′ overrun NE end; 500′ overrun SW end.
Tower 118.5 122.7R
PAR Rnwy 20 Ceil 200 Vsby ½ mi Min Alt 1405
(L) BVOR 111.8/ALW
RBn BH 356/ALW

WENATCHEE (L) BVOR 111.0/EAT **FSS:** WENATCHEE

§YAKIMA MUNI ***IFR*** 2 S **FSS:** YAKIMA on Fld
1082 H55/9–27(3) (S–50, T–60, TT–100) BL4, 6 8A, 9 S5 F5, JP1, JP4 U2 **RVR:** Rnwy 27
Remarks: Rnwy 34 threshold and runup area not visible from twr.
Tower 119.7 122.5R **Gnd Con** 121.9
App Con 120.2 122.5R
ILS 110.1 I–YKM Apch Brg 269° **LOM:** 284/YK
(H) BVORTAC 116.0/YKM 244° 3.6 NM to fld

WEST VIRGINIA

BECKLEY (H) BVOR 117.7/BKW **FSS:** CHARLESTON

BLUEFIELD (L) BVOR 115.4/BLF **FSS:** BLUEFIELD

CHARLESTON
§KANAWHA ***IFR*** 2 NE **FSS:** CHARLESTON on Fld
982 H56/5–23(2) (S–150, T–200, TT–44) BL4, 6, 8A, 9, 11 S5 F5, JP5 U2 DT1 **RVV:** Rnwy 23 **REIL:** Rnwy 5
Charlestown Tower 120.3 110.3T 122.5R **Gnd Con** 121.9
Radar Services:
Charleston App Con 118.8 110.3T 122.5R
Charleston Dep Con 124.1
Tfc Info All landing acft ctc App Con on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I–CRW Apch Brg 230° BC unusable **LOM:** 303/CR
Charleston (H) BVORTAC 117.4/SRW 084° 8.1 NM to fld
VHF/DF Ctc twr.
Remarks: Glide slope unusable beyond 12 NM below 2400′ MSL. **VOT:** 111.0.

CLARKSBURG (L) BVOR 115.1/CKB **FSS:** MORGANTOWN

ELKINS (L) BVORTAC 114.5/EKN **FSS:** ELKINS
Rng SBMRAZ[1] 245/EN
Remarks: [1]Reliable reception distance 40 NM.

HENDERSON (L) BVORTAC 111.2/HNN **FSS:** HUNTINGTON

HUNTINGTON
§TRI-STATE (WALKER LONG FLD) ***IFR*** 6 SW
FSS: HUNTINGTON on Fld
828 H53/11–29(1) (S–50, T–75, TT–135) BL6, 8A, 9 S5 F4, JP1 U2 DT1
Huntington Tower 120.9 122.5R **Gnd Con** 121.9
Huntington App Con 118.5 122.5R 109.9T
ILS[1] 109.9 I–HTS Apch Brg 114° **LOM:** 287/HT
Huntington RBn BH 323/HTW 199° 2.5 NM to fld.
Remarks: [1]Lclzr front crs unusable MM to rnwy.

KESSEL (L) VORW 110.8/ESL **FSS:** ELKINS

§MARTINSBURG MUNI ***IFR*** 4 S **FSS:** MARTINSBURG on Fld
556 H70/8–26(2) (S–90, TT–) BL4,6 F4 DT2
Tower[1] 120.5 126.2 122.5R **Gnd Con** 121.9
Radar Services:
Dulles App Con 119.2 126.1
Dulles Dep Con 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ½ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.
Remarks: [1]Oper 1330–2130Z Tues, Thur, Sat and Sun; 1330–0300Z Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 1330–2130Z Tues thru Sat only. Clsd holidays.

MORGANTOWN (L) BVORTAC 111.6MGW **FSS:** MORGANTOWN
RBn MHW 269/MGW

PARKERSBURG (L) BVOR 114.2/PKB **FSS:** PARKERSBURG

RAINELLE (L) BVOR 116.6/RNL **FSS:** CHARLESTON

§WHEELING-OHIO COUNTY ***IFR*** 7 N **FSS:** WHEELING on Fld
1195 H50/3–21(3) (S–120, T–170, TT–290) BL4, 6, 10, 11, 12 F4 **VASI:** Rnwy 21 **REIL:** Rnwy 21
Wheeling Tower 118.1 122.5R 109.7T **Gnd Con** 121.9
ILS[1] 109.7 I–HLG Apch Brg 030° **LOM:** 212/HL
Wheeling (L) BVORTAC 112.2/HLG 220° 5.8 NM to fld.
Remarks: [1]Glide slope unusable from MM to touchdown due to roughness.

WHITE SULPHUR SPRINGS (T) VOR 108.4/SSU
FSS: ROANOKE, VA.

WISCONSIN

APPLETON RBn MHW 407/ATW **FSS:** GREEN BAY

BOULDER JUNCTION RBn H 206/BDJ **FSS:** WAUSAU

CAMP MC COY RBn MHW 412/CAY

DELLS (L) BVORTAC 110.4/DLL **FSS:** LONE ROCK

EAU CLAIRE (L) BVORTAC 112.9/EAU **FSS:** EAU CLAIRE

FOND DU LAC RBn MHW 248/FLD **FSS:** GREEN BAY

GRANTSBURG (L) BVOR 109.4/GTG **FSS:** MINNEAPOLIS

GREEN BAY
§AUSTIN STRAUBEL ***IFR*** 7 SW **FSS:** GREEN BAY on Fld
694 H52/6-24(3) (S-63, T-87, TT-160) BL4, 6, 8 S5 F4 U2 DT2 **RVR:** Rnwy 6
Remarks: U.S. Customs lndg rgts arpt. 1166′ (2049′ MSL) and 1149′ (2049′ MSL) twrs 7.5 NM SE
Green Bay Tower 118.7 122.5R 109.5T **Gnd Con** 121.9
Green Bay App Con 119.4
VFR ADV Ctc App Con on 119.4.
ILS[1] 109.5 I-GRB Apch Brg 059° **LOM:** 356/GR
Green Bay (H) BVORTAC 117.0/ GRB 145° 4.6 NM to fld.
VHF/DF Ctc FSS.

JANESVILLE
ROCK COUNTY ***IFR*** 4 SW **FSS:** ROCKFORD (LC EN5639)
808 H54/4-22(3) BL6, 11 S5 F4 JP1 U2 DT2
REIL: Rnwy 4
Remarks: Rnwy 22 threshold displaced 698′ NE. Lndg length 4702′; rnwy 31 threshold displaced 449′ NW, lndg length 4957′.
Tower[1] 121.2 122.7R 121.5x[2] **Gnd Con** 121.9
Rockford App Con 119.6
(L) BVORTAC 113.4/JVL
Remarks: [1]Opers 0600-2200 lcl time. [2]Thru Rockford FSS.

LACROSSE (T) BVOR 108.4/LSE **FSS:** LACROSSE
RBn MHW 371/LSE

LAND 'O LAKES RBn MHW 396/LNL **FSS:** WAUSAU
Remarks: Owned operd by city.

LONE ROCK (L) BVORTAC 112.8/LNR **FSS:** LONE ROCK

MADISON
§TRUAX FIELD ***IFR*** 5 NE **FSS:** MADISON on Fld
859 H76/18-36(4) (S-150, T-190, TT-310) BL4, 8A, 9 S5 F5, JP4, JP5 U2 DT1 **RVV:** Rnwy 18 **RVR:** Rnwy 36
Remarks: P-line N, W. 1107′ (227′ MSL) twr 9.5 NM SW and 1182′ (2249′ MSL) twr 8 NM SW. 24-hr notice required for mil acft requesting 2500 gals or more F5. Taxi on hard surface areas only.
Madison Tower 119.3 126.2 122.5R 115.5T **Gnd Con** 121.9
Madison App Con 120.1 126.2 109.9T
Madison Dep Con 118.8
VFR ADV Ctc App Con on 120.1.
ILS 109.9 I-MSI Apch Brg 359° **LOM:** 400/MSN
Madison RBn MHW 400/MSN 359° 3.9 NM to fld.
Truax (L) BVOR 115.5/TAX at fld.
VHF/DF Ctc FSS.
Remarks: LOM is MHW

MANITOWOC (T) BVOR 111.0/MTW **FSS:** GREEN BAY

MARSHFIELD RBn MHW 391/MFI
Remarks Operd by City

MILWAUKEE
§GENERAL MITCHELL FLD ***IFR*** 5 S **FSS:** MILWAUKEE on Fld
722 H99/1-19(4) (S-100. T-185, TT-350) BL4, 5, 6, 8A, 9 S5 F5, JP1 U2 DT1 **RVR:** Rnwys 1, 7R
Remarks: U.S. Customs lndg rgts arpt. Rnwy 19 threshold displaced 1600′ S. 8316 avbl lndg rnwy 19. Rnwy 25L threshold displaced 523′ SW. 7489′ avbl rnwy 25L day/ngt. 8010′ avbl tkof rnwy 25L and lndg and tkof 7R day/ngt. Rnwy 7L-25R clsd to all Jet acft. 1105′ (1735′ MSL) 9.5 NM N and 1078′ (1720′ MSL) twrs 8 NM N. 1035′ (1685′ MSL) twr 8 NM N. Rnwy 7L threshold displaced 667′ NE. Rnwy 25R threshold displaced 944′ SW. Air carrier turbo-jet trng lndgs and tkofs prohibited 0330-1100Z. Tkofs permitted rnwy 7R btn 040-100° and wind velocity greater than 10 knots only.
Milwaukee Tower 119.1 126.2 122.7R **Gnd Con** 121.9
Clrnc Del 120.0
ATIS: 110.7
Radar Services: (BCN) .
Milwaukee App Con 126.5 123.8 126.2 116.4 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info: Acft apchg from 360-179° of fld ctc App Con on 123.8; from 180-359° ctc App Con on 126.5.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19[2] 25L, 31 Ceil 500 Vsby 1 mi Min Alt 1223
ILS 110.3 I-MKE Apch Brg 006° **LOM:** 410/MK
110.7[3] I-GMF Apch Brg 070° BC unusable **LOM:** 242/GM
Milwaukee (H) BVORTAC 116.4/MKE 118° 19.2 NM to fld.
Mitchell RBn H-SAB 242●/GM 070° 5.8 to rnwy 7R
North Park RBn MHW 278/ILW
VHF/DF Ctc twr.
Remarks: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr. [2]Do not descend below 1800′ til ctlr advise passing 5 mi radar fix. LOM is S-HAB. [3]Glide slope unusable below 922′. **VOT:** 109.0.

§TIMMERMAN FIELD ***IFR*** 5 NW **FSS:** MILWAUKEE (DL)
745 H41/15L-33R(2) (Max-15) BL4 S5 F4 U-2 DT1
Remarks: P-line E, NE. 1105′ (1753′ MSL) and 1078′ (1720′ MSL) twrs 6 NM E. 1035′ (1685′ MSL) twr 6 NM ESE. Clsd all jet acft without prior permission from County Arpt Director except emgcy.
Tower[1] 120.5 122.5R 121.5x[4] **Gnd Con** 121.7
Radar Services:
Milwaukee App Con 126.5[3] 126.2 123.8[2] 116.4T 110.3T 242T
Milwaukee Dep Con 118.0 126.2 122.7R 118.6
Tfc Info Ctc Milwaulkee App con 123.8 E sector; 126.5 W sector.
Timmerman (L) BVOR 108.6/MWC on fld.
Remarks: [1]Oper 1200-0400Z. [2]360-179. [3]180-359. [4]Thru Mitchell Twr or Milwaukee FSS.

NORTH PARK RBn MHW 278/ILW

OSHKOSH
§WINNEBAGO CO ***IFR*** 1 SW **FSS:** GREEN BAY (DL)
795 H58/9-27(4) (S-40, T-55, TT-80) BL6 S5 F4, JP4 U2 DT2
Remarks: P-line E, NE. Rnwy 27 threshold displaced 594′ W. 5262′ avbl lndg rnwy 27. Rnwy 36 threshold displaced 790′ N. 4357′ avbl rnwy 36. Rnwys 4-22, 13-31 not plowed winters.
Oshkosh Tower[1] 120.7 122.5R 395T **Gnd Con** 121.9
Tfc Info App Con Radar vector service to final apch crs from Chicago ARTCC on 124.4.
ILS 110.5 I-OSH Apch Brg 089° **LOM:** 395/OS
Oshkosh (L) BVOR 111.8/OSH at fld.
Remarks: [1]Oper 1300-0500Z

RACINE RBn MH 260/RAC **FSS:** MILWAUKEE

REWEY (L) BVOR 115.8/RWY **FSS:** LONE ROCK

RHINELANDER (L) BVORTAC 109.2/RHI **FSS:** WAUSAU

SHEBOYGAN MHW 254/SBM

WISCONSIN—*Continued*

STEVENS POINT (L) BVOR-DME 110.6/STE **FSS:** WAUSAU
Remarks: Private facil. To be in common system.

TIMMERMAN (L) BVOR 108.6/MWC **FSS:** MILWAUKEE

TRUAX (L) BVOR 115.5/TAX

VOLK (L) VOR 109.0/VOK
RBn HW 281/VOK

WAUSAU (L) BVORTAC 111.6/AUW **FSS:** WAUSAU

WYOMING

BIG PINEY (L) BVOR 116.5/BPI **FSS:** ROCK SPRINGS

BOYSEN RESERVOIR (H) BVORTAC 117.8/BOY **FSS:** WORLAND

§CASPER AIR TERMINAL ***IFR*** 7 NW **FSS:** CASPER on Fld
5348 H90/16–34(4) (S–80, T–146, TT–288) BL4, 6, 8A, 9 S5 F4, JP4 U2
Remarks: 1000′ overruns on each end rnwy 3–21 not lgtd.
Tower 118.3 122.5R ~~121.5~~ **Gnd Con** 121.9
App Con 120.7 122.5R 116.2T 110.3T
ILS[1] 110.3 I–CPR Apch Brg 074° **LOM:** 219/CP
(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.
RBn SABH 269●/CPR 255° 6.7 NM to fld.
VHF/DF ctc FSS.
Remarks: [1]Glide slope unusable beyond 1 nmi W of LOM above 7000′ MSL due to moderate to severe roughness.

CHEROKEE (L) BVORTAC 112.2/CKW **FSS:** RAWLINS

§CHEYENNE MUNI ***IFR*** 1 N **FSS:** CHEYENNE on Fld
6155 H93/8–26(3) (S–90, T–121, TT–270) BL4, 6, 8A, 9, 11 S5 F5, TPI JP4 **RVV:** Rnwy 26 **REIL:** Rnwy 30
Remarks: Avoid hospital E. Rnwy 8 threshold displaced 687′ E. 8610′ avbl lndg rnwy 8; 9297′ avbl lndg rnwy 26.
Tower 118.7 122.5R 126.2 113.1T 109.9T **Gnd Con** 121.9
App Con 120.0 122.5R 113.1T 109.9T
VFR ADV Ctc App Con on 120.0 aprx 25 mi out.
ILS 109.9 I–CYS Apch Brg 262° **LOM:** 219/CY
(H) BVORTAC 113.1/CYS 196° 3.7 NM to fld.

CRAZY WOMAN (H) BVORTAC 117.3/CZI **FSS:** SHERIDAN

DOUGLAS (L) BVOR 108.6/DGW **FSS:** CASPER

DUNOIR (L) BVOR 113.4/DNW **FSS:** WORLAND

FORT BRIDGER (L) BVORTAC 108.6/FBR **FSS:** ROCK SPRINGS

JACKSON (L) BVOR 108.4/JAC **FSS:** IDAHO FALLS
Remarks: Awy holding and apch rad use only.

LARAMIE (L) BVORTAC 117.6/LAR **FSS:** LARAMIE

MEDICINE BOW (L) BVORTAC 114.1/MBW **FSS:** LARAMIE

RIVERTON (L) BVOR 108.8/RIW **FSS:** WORLAND

§ROCK SPRINGS MUNI ***IFR*** 7E **FSS:** ROCK SPRINGS on Fld
6747 H67/7–25(2) BL4,6,7 S3 F4
Remarks: Fee.
ILS 110.3 I–RKS Apch Brg 254° **LOM:** 219/RK
(H) BVORTAC 114.7/RKS
RBn SABH 290●/RKS
VHF/DF Ctc FSS.

SHERIDAN (L) BVORTAC 115.3/SHR **FSS:** SHERIDAN

SINCLAIR RBn SBH 368/SIR **FSS:** RAWLINS

PUERTO RICO

PONCE (L) BVOR 109.0/PSE **FSS:** SAN JUAN

RAMEY (H) BVORTAC 113.5/RSJ **FSS:** SAN JUAN

SAN JUAN
§ISLA GRANDE Adj W **FSS:** SAN JUAN
10 H53/9–27(1) (S–52, T–88, TT–160) BL4 S3 F4
Isla Grande Tower[1] 118.7 126.2 122.5R 218T 3023.5R
Gnd Con 121.7
Remarks [1]Oper 1100–0200Z

§PUERTO RICO INTL 6E **FSS:** SAN JUAN
9 H100/7–25(1) (S–100, T–200, TT–400) BL–6, 11 S5 F5 JP1, JP4, JP5 U2 **REIL:** Rnwy 7
Remarks: U.S. Customs lndg rgts. Lndg fee over 7500 lbs.
San Juan Tower 118.3 3023.5R 272T **Gnd Con** 121.9
Radar Services:
San Juan App Con 124.6 119.0
San Juan Dep Con 120.9
ASR[1] Rnwy 7 Ceil 600 Vsby 1 mi Min Alt 609
Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 409
San Juan (H) BVORTAC 114.0/SJU on fld
San Juan RBn BHH 391/SJU 100° 24.0 NM to fld
Remarks: [1]Descent below 1200′ not authorized until passing 4.6 NM radar fix.

SAN PAT RBn MHW 330/SJP **FSS:** SAN JUAN

SWAN ISLAND

SWAN ISLAND RBn HHW 407/SWA

VIRGIN ISLANDS

§ST. CROIX
CHRISTIANSTED, ALEXANDER HAMILTON 7SW AOE **IFSS:** SAN JUAN
60 H76(1) (S–55, T–80, TT–130) B*L5 S3 F5 JP4
Remarks: Hill N. Rnwy lgts avbl til 0300Z unless req rcvd prior 0200Z.
St. Croix Twr[2] 118.9 108.2T 122.7R **Gnd Con** 121.9
St. Croix (L) BVOR[2] 108.2/STX
RBn[1] **HW** 224/STX
Remarks: [1]Opers 1100–0300Z. [2]Opers 1100–0200Z.

ST. THOMAS
CHARLOTTE AMALIE
§HARRY S. TRUMAN 2W **FSS:** SAN JUAN
11 H46/9–27(1) (S–30, T–45, TT–70) BL5 S5 F4
Remarks: U.S. Customs lndg rgts arpt.
St. Thomas Tower[1] 118.5 122.5R 108.6T
St. Thomas (L) BVOR 108.6/STT 119° 3.0 NM to fld
St. Thomas RBn[2] **HW** 239/STT on fld.
Remarks: [1]Oper 1000–0200Z. [2]Private; oper 1100–0300Z

AIR ROUTE TRAFFIC CONTROL CENTER COMMUNICATIONS FREQUENCIES

SEE PART 1, ENROUTE, DIRECT COMMUNICATIONS-CONTROLLERS/PILOTS

(This information supplements the RCAG data shown on Enroute Low Altitude Charts)

Center Sector Discrete Frequencies

	LOW	HIGH
ALBUQUERQUE	125.2	135.05
Amarillo	127.2 132.3	134.75
Animas	124.6	133.0
Caprock		132.65 133.8
El Paso	120.1 126.0	134.35 135.3
Globe	124.5 125.4	133.0 133.85
Humboldt	119.8	132.9 135.15
Otto	124.7	
Raton	134.5	133.05
Sandia Mountain	124.7	133.65
Seligman	126.9	
Truth or Consequences	126.4	133.45
Tucson	124.6	
Tucumcari	125.9	133.55 135.7
Winslow	126.9	
Zuni		135.8
ATLANTA	118.9 123.3 124.1 125.2	133.35 135.75
Austell	125.9	
Birmingham	127.8 135.6	134.45
Chattanooga	121.2 128.6	
Columbus	128.3	
Franklin	126.1	
Greensboro	123.8 126.6 127.8	
Greenville	125.5	133.7
Hampton		133.1
Hickory	124.4	132.75 134.55
Macon	126.8	
Montgomery	126.4	132.25 132.85 134.6
Newport	127.55 128.75	135.15
Tri City	120.0 128.65	132.9
BOSTON		
Barnstable	128.1 132.65	128.1 132.65 132.9 134.85
Houlton	124.2	133.5
Lake George	127.9	134.45 135.7
Melrose	119.0 124.0 124.9	134.3
Mt. Equinox	127.9	134.7
Rome	127.1 132.5	127.8 132.5
St. Albans	127.6 128.2	134.95
South Acton	127.3	
Woodstock	121.0 125.8 127.0 132.4	

	LOW	HIGH
CHICAGO	120.4 125.2 127.8	
Aurora	120.6 127.6	133.5
Bradford	126.8	133.95
Dells	125.6	
Des Moinses		132.4
Des Plaines	120.2 123.9 124.0 127.0 127.1	
Dubuque	124.8 127.0	127.95 132.5
Fort Wayne	124.1 133.9	
Goshen	128.2 128.7	132.15 135.35
Grand Island	119.4	135.1
Grand Rapids	127.7 128.5	133.35
Green Bay	124.4	
Hampshire	126.6 128.05	124.5 134.95
Horicon	127.5	132.75 135.55
Lincoln	124.8	
Marysville		133.1
Mason City	132.2	
Milford	121.4	128.65 133.7
Milwaukee	125.1 132.3	
Moline	119.4	
Omaha	119.6 126.4	133.35
Oneillo	128.0	
Sioux City	124.1	
Washington	120.8	
Wausau	128.4	
CLEVELAND		
Algonac	125.3 128.6	
Belmont	120.4 120.8 124.5 125.1 127.5	
Blue Knob	121.2 124.4 126.8 128.45	
Brecksville	118.9 125.0 125.7	
Defiance	127.9 128.35	
Detroit North	123.9 126.4	
Detroit South	120.3 125.6	134.65
Holland	125.2 127 45	
Litchfield	118.8 126.1	
Mansfield	119.6	132.45
Moon Township	120.6 124.3	132.25
Mt. Hope	119.8 127.65	
Saginaw	134.3	133.25

ARTCC COMMUNICATIONS FREQUENCIES

	LOW	HIGH
CLEVELAND (Con't)		
Warren No 1	127.15	
Warren No 2	120.2 121.4	133.3 134.25
Wayland	124.2	133.95
DENVER	119.8 124.1 125.0 125.8	132.15 132.85 133.75
Alamosa	134.6	127.3
Casper	133.0	134.65
Cheyenne	133.0	128.2
Crawford	127.2	133.5
Farmington	133.4	127.55 134.7
Goodland	132.5	133.0
Grand Island	132.7	135.5
Grand Mesa	127.8 134.6	132.15
La Junta	126.0	135.15
Ogallala	132.7	134.4
O'Neill	134.6	133.85
Pueblo	125.6	132 05 133.15
Rapid City	127.2	134.65
Sunnyside	127.8	135.65
Winslow	132.7	132.1
FORT WORTH	119.4 124.7 126.0 127.0	135.75
Abilene	124.4	133.5 134.25
Ardmore	128.1	
Farmersville	135.0	
Fayetteville		132.55
Hobart	133.9	
Keller		132.2
Longview		132.45
Lubbock	127.7	133.35
Marshall	124.8 126.6	
Midland	128.3 133.1	133.95 135.4
Oklahoma City	124.6 128.3	132.35 134.85
Plainview		133.25
San Angelo	135.0	133.7
Shreveport	125.0 125.6	135.1
Texarkana	124.8	135.35
Tulsa	127.3 128.8	133.55
Waco	133.3	
Wichita Falls		132.75 134.55 135.6
GREAT FALLS	126.5	132.95 134.55
Billings	125.8	135.25
Butte	125.1	135.55
Dickinson	125.9	133.55
Glasgow	125.0	132.25
Jamestown	124.1	
Miles City	126.4	132.65
Minot	118.9 127.6	127.6
Whitefish	120.4	133.4
HOUSTON	121.0 124.2 125.9 127.05	134.35
Alexandria	124.0	132.7
Austin		132.9 133.4
Cameron	126.9	

	LOW	HIGH
HOUSTON (Con't)		
Grand Isle	128.1	133.85
Hattiesburg	126.8	135.2
Kingsville	128.3	133.75
Lacombe	124.1 126.0	
Lafayette	125.8 128.4	133.65
Lake Charles	126.4 132.95	
Laredo		127.8 132.5
Lometa	128.2	
Lufkin	126.95	134.8
Mobile	120.7 126.6	132.6
New Orleans	118.9 127.0	
Palacios	128.0	133.05
Rockport	127.2	
Rocksprings	128.4	132.4
San Antonio	118.2 120.6 121.2	132.15 132.8 134.95
INDIANAPOLIS	124.4	
Avon		133.05 134.35
Brookville	124.2 124.8	132.7
Charleston	127.4 128.4	134.75
Cincinnati	132.6	
Evansville	128.3	
Henryville	128.55	133.75 134.95
London, Ky	127.3	128.25
London, Ohio	135.1 135.8	
Marietta	127.1	
Portsmouth	135.7	133.45
Rossville	126.0 128.8	
Terre Haute	132.2	
Winchester	127.0	
Zanesville	118.2	134.95
JACKSONVILLE	118.6 120.6 125.5	134.85
Albany	127.2	
Alma	132.3	
Augusta	128.1	132.1
Charleston	120.2 125.1	132.65 134.25
Columbia	124.7	135.55
Crestview	126.9 133.95	134.75 135.4
Daytona Beach	124.3	
Dothan	134.3	
Florence	133.4	
Gainesville	119.2	
Mobile	120.2	
Myrtle Beach	126.5	135.05
Panama City		127.6
Savannah	121.3 132.5	135.25
Tallahassee	132.8	133.25 133.95
Valdosta		128.45 135.65
KANSAS CITY		
Anthony		135.45
Blue Springs	119.7	134.7
Columbia	118.4 119.0	135.4
Decatur	124.3 132.1	
Effingham	134.6	133.15

ARTCC COMMUNICATIONS FREQUENCIES

	LOW	HIGH
KANSAS CITY (Con't)		
Emporia	120.2 125.3	132.25
Farmington	124.1	132.65
Gage	127.4	
Garden City	125.2	133.45
Hutchinson	118.8 125.9	134.3
Joplin	128.6	
Kirksville	132.60	135.0
Lebanon	128.4	133.8
Marysville	134.9	
Mt. Vernon	125.3 127.7	
Natoma	124.4	132.95
Ponca City	127.8	135.25
Quincy	121.0	
St. Charles	118.8 120.3 125.5	
St. Joseph	127.6	
St. Louis	125.9 128.1	
Springfield	127.5	132.9
Stilwell	125.1	
Topeka	123.8	
LOS ANGELES	126.0 127.4 133.8	
Bakersfield	127.1	128.3 133.05
Baldwin Hills	128.4 128.8	134.75 134.95
Barstow	126.6 132.3 132.5 134.2	1133.55
Cedar City	124.2	135.25
Julian	127.3	128.6 134.55 135.45
Nelson	123.9 133.4 134.6	133.25
Ontario	128.2	
Pahrump	124.8	127.9
Saddle Peak	126.4 132.6 135.05	
Santa Barbara	119.0 125.0 134.4	132.15
Seligman		134.95
Yuma	133.4	135.45
MEMPHIS	119.3 120.1 127.6	134.25
Brinkley		133.0 133.55
Columbus	127.1	
Fayetteville	126.1	
Graham	128.7	132.25
Greenville	132.5	135.7
Huntsville	127.25	
Jackson	132.1	134.9
Meridian	124.4 127.3	135.3
Nashville	118.6 124.6 125.4	133.6
Pine Bluff	127.2 127 75 132.3	
Russellville	132.3	
South Fulton	128.05	135.5
Walnut Ridge	127.4	
MIAMI	118.9 120.3 124.7 125.4 126.4 127.0	127.7 132.7 134.95
Fort Myers	128.25	
Key West	124.4	
Melbourne	124.1	132.15 135.5
Nassau		125.7
Orlando	124.5 127.4	132.95 133.8 134.5
Sarasota	125.6 127.3	

	LOW	HIGH
MIAMI (Con't)		
Tampa	125.8	133.65 134.35
West Palm Beach	120.0 127.2	
MINNEAPOLIS	120.3 125.5	134.45
Alexandria	126.1	133.4
Alpena	134.8	
Clark	132.6	
Duluth	127.9	134.55
Eau Claire	125.3	
Grand Forks	127.8	132.15
Houghton	127.2	133.55
International Falls	120.9	
Jamestown	125.6	
La Crosse	128.6	
Mason City	127.3	134.25
Pellston	134.6	133.85
Pierre	125.1 134.8	134.8
Redwood Falls	127.1	133.65
Rosemont	125.9	135.7
Sioux Falls	132.1	135.45
Wausau	126.0	
NEW YORK		
Big Flat	124.8 128.1	
Douglaston	119.8 125.1 126.6 128.3	132.75
Elk Mountain	119.6 126.9 128.5 135.1	
Flint Hill	125.4	134.8 135.45
Millville	124.2 126.0 128.7	133.8
Montauk Point	126.8	133.9
North Mountain	132.6	135.75
North Philadelphia	125.3	
Philipsburg	135.6	
Sayre	128.65 134.6	132.1 132.95
Shelton	120.2 125.5 126.4	135.55
Ships Bottom	125.6 126.9	
Wildwood	135.65	132.3
OAKLAND		
Angels Camp	120.6 124.2 126.5 127.7	128.15 132.35 134.7
Fallon	127.5	132.05 132.85
Ferndale	123.9	132.95
Fresno	120.2 123.8 124.6	132.65 133.7
Mt. Tamalpais	125.5 126.8 127.8	134.35
Mountain View	120.4	133.3
Red Bluff	118.4	127.05 133.75
San Louis Obispo	128.7	132.8
San Jose	121.2 125.9 127.2 128.7	
Tonopah	127.3	
SALT LAKE CITY		
Battle Mountain	133.1	133.25
Blackfoot	124.5 128.4	132.4
Boise	125.3	135.7
Cedar City		134.15

SALT LAKE CITY (Con't)

	LOW			HIGH		
Delle	120.3			134.85		
Elko	133.1			132.25		
Emmett	124.5			132.5		
Francis Peak	123.8	126.6		132.55		
Gooding	125.6					
Pioche	124.0			134.15		
Rock Springs	124.4			134.25		
Salmon	128.4					
Sheridan	127.8					
Sunnyside	124.0					
Thermopolis	124.4	127.4		133.25		
Tonopah	126.4			133.45		
SEATTLE	120.3	121.2	125.1	120.3	121.2	125.1
	128.1	133.5		133.5		
Ferndale	124.3					
Horton	125.3	128.1		134.65		
Kent	125.6			125.6		
Klamath Falls				133.65		
Neah Bay	125.1			125.1		
Pendleton	132.1					
Redmond	125.8			134.65		
Scappoose	120.9	125.3		133.9		
Spokane	124.1	126.0				
Yakima	132.6			134.75		

WASHINGTON

	LOW			HIGH		
Bucks Elbow	128.6			133.65		
Buena Vista	126.4	127.6		134.4		
Clinton	135.0			132.85	133.55	
Dunn Loring	119.4	124.0	124.7			
	125.8					
Falls Church	118.6	121.0	123.9			
	125.2					
Green Bay	119.6	133.25		128.05		
New Bern	127.1			135.2		
Norfolk	124.9	128.15	135.4	132.55		
Raleigh	132.4			134.85		
Rocky Mount				133.0		
Somerville	134.3			133.15		
Whaleyville	120.3			132.15		
PANAMA	118.5	119.7	125.5	118.5	119.7	125.5
Western Caribbena	126.9			126.9		
Eastern Caribbean	126.9			126.9		
South America	126.9			126.9		
SAN JUAN						
El Yunque	125.0			120.3		
Palmer Troposite				119.9		
Pico del Este				121.1	121.5	

FSS INFORMATION AND WEATHER BUREAU TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service is provided at the pilot's request on 122.2T by FSSs located at airports where there are not control towers in operation. (See Part 1 ARRIVALS

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

★ Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

◆ Indicates a restricted number, use for aviation weather information

▬ Call FSS for "one call" FSS/WBAS briefing service.

The availability of a VHF/DF at a FSS is indicated by the letters DF. For service, contact FSS on standard frequencies.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name

Standard Flight Service Station civil communications frequencies are: 122.7 122.2T 122.1R 123.6 and emergency 121.5. These frequencies are normally available at all stations listed. Four designated part-time FSS's transmit and receive on only 123.6 and 121.5 (emergency). These are identified in the tabulation by ✓ symbol preceding the name.

Location and Identifier			Area Code	Telephone
ALABAMA				
Anniston ANB		FSS	(205)	831-2303
Birmingham BHM		FSS	(205)	595-6151★
		WB	(205)	595-2101
Dothan DHN	DF	FSS	(205)	794-6683
Huntsville HSV		FSS	(205)	536-1254
		WB	(205)	881-2761◆
Mobile MOB (Bates)		FSS	(205)	342-1177
		WB	(205)	342-2762◆
Montgomery MGM (Dannelly)	DF	FSS	(205)	269-4368
		WB	(205)	263-0621◆
Muscle Shoals MSL	DF	FSS	(205)	383-6541
		WB	(205)	383-6657◆
Tuscaloosa TCL		FSS	(205)	758-3628
ARIZONA				
Douglas DUG (Bisby-Douglas)		FSS	(602)	EM 4-5353
Flagstaff		WB	(602)	774-1424
Phoenix PHX (Sky Harbor)	DF	FSS	(602)	261-4295▬
		WB	(602)	261-3868★
Prescott PRC	DF	FSS	(602)	HI 5-2160
Tucson TUS	DF	FSS	(602)	792-6359▬
Winslow		WB	(602)	289-3592
Yuma YUM		FSS	(602)	725-2601▬
ARKANSAS				
El Dorado ELD (Goodwin)		FSS	(501)	UN 3-9313
Fayetteville FYV (Drake)		FSS	(501)	HI 2-8277

Location and Identifier			Area Code	Telephone
ARKANSAS (Con't)				
Ft. Smith FSM		FSS	(501)	MI 6-7868:69
		WB	(501)	646-5731
Harrison HRO		FSS	(501)	EM 5-3433
Little Rock		WB	(501)	374-1546◆
Pine Bluff PBF (Grider)	DF	FSS	(501)	JE 5-0652
Texarkana TXK		FSS	(501)	774-6221
Walnut Ridge ARG		FSS	(501)	TU 6-6671
CALIFORNIA				
Arcata ACV	DF	FSS	(707)	TE 9-2071
Bakersfield BFL (Meadows)	DF	FSS	(805)	399-1787▬
Bishop		WB	(714)	873-3213 (0545-1915)
Blue Canyon		WB	Emigrant Gap	2721 (0545-1415)
Blythe BLH	DF	FSS	(714)	948-6638
Crescent City CEC (McNamara Fld)		FSS	(707)	IN 4-2514
Daggett DAG	DF	FSS	(714)	CL4-2223
Eureka		WB	(707)	442-2171◆
Fresno FAT (Air Terminal)	DF	FSS	(209)	251-8269▬
Imperial IPL		FSS	(714)	355-1948
Long Beach		WB	(213)	432-9874
		WB	(213)	429-0337◆
Los Angeles LAX (International)		FSS	(213)	SP 6-2727
		WB	(213)	670-2223 (Englewood Exchange)
		WB	(213)	SP 6-6583◆ (Los Angeles Exchange)
Marysville MYV (Yuba Co.)		FSS	(916)	742-1445
Montague SIY (Siskiyou Co.)		FSS	(916)	459-3003
Mt Shasta		WB	(916)	926-2227 (0730-1600)
Needles EED		FSS	(714)	326-3511

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

Location and Identifier			Area Code	Telephone
CALIFORNIA (Con't.)				
Oakland OAK (International)		FSS	(415)	562-7807▬
		WB	(415)	832-5418★
			(Via San Francisco)	
Ontario ONT		FSS	(714)	983-2618
Palmdale PMD (USAF Plant No. 42)		FSS	(805)	947-3502
Paso Robles PRB	DF	FSS	(805)	238-2448
Red Bluff RBL (Bidwell)	DF	FSS	(916)	527-0242▬
Sacramento SAC	DF	FSS	(916)	428-6500▬
Salinas SNS		FSS	(408)	422-4723
San Diego SAN (Lindbergh)		FSS	(714)	296-3181▬
San Francisco		WB	(415)	589-6711★
		WB	(415)	761-2052◆
(So. San Francisco)		WB	(415)	588-3012
Santa Barbara SBA	DF	FSS	(805)	967-2305
Santa Catalina Island		WB		Avalon 703
Santa Maria		WB	(805)	925-3525
				(0600-2200)
Stockton SCK		FSS	(209)	466-3684▬
Thermal TRM		FSS	(714)	EX 9-5155
Ukiah UKI		FSS	(707)	462-6136
COLORADO				
Akron AKO		FSS	(303)	345-2271
Alamosa		WB	(303)	589-2547
				(0400-2000)
Colorado Springs		WB	(303)	596-0553◆
Denver DEN (Stapleton Intl)		FSS	(303)	297-3277▬
		WB	(303)	388-3653★
Eagle EGE		FSS	(303)	328-2125
Grand Junction GJT (Walker Field)		FSS	(303)	242-1801▬
La Junta LHX		FSS	(303)	DU 4-4311
Pueblo PUB (Memorial)		FSS	(303)	948-3301
		WB	(303)	948-3376◆
Trinidad TAD	DF	FSS	(303)	846-2623
CONNECTICUT				
Bridgeport		WB	(203)	378.2344
Hartford		WB	(203)	247-2855◆
New Haven		WB	(203)	469-2141◆
				(0630-1700)
Windsor Locks BDL (Bradley Field)		FSS	(203)	623.2416
		WB	(203)	NA 3-5590

Location and Identifier			Area Code	Telephone
DELAWARE				
Wilmington		WB	(302)	328-2755◆
DISTRICT OF COLUMBIA				
Washington (Chantilly, Va.) Dulles Intl (toll)		WB	(202)	661-8526◆
Washington National DCA		FSS	(202)	DI 7-4040▬
		WB	(202)	347-8016★

▬This line answered by FSS and provide "one call briefing service". Caller can be switched to WB office upon request.

Location and Identifier			Area Code	Telephone
FLORIDA				
Apalachicola		WB	(904)	653-3171
Crestview CEW	DF	FSS	(904)	MU 2-2795
Daytona Beach DAB		FSS	(904)	255-4767
		WB	(904)	252-3112
Ft. Myers FMY (Page Field)	DF	FSS	(813)	WE 6-1857★
			(813)	WE 6-2057
			(0600-1400 Apr-Oct)	
			(0600-2200 Nov-Mar)	
Gainesville GNV		FSS	(904)	376-8521
Jacksonville JAX (Imeson)		FSS	(904)	355-3601▬
		WB	(904)	353-8605★
Key West EYW (International)		FSS	(305)	CY 6-2042
		WB	(305)	CY 6-2011
Lakeland		WB	(813)	682-4221
		(0600-2400 Nov 15-Mar 15)		
		(0800-1700 Mar 16-Nov 14)		
Melbourne MLB (J.F.K. Mem'l)		FSS	(305)	PA 3-6151
Miami MIA		IFSS	(305)	633-1461▬
		WB	(305)	666-2543★
Orlando ORL (Herndon)		FSS	(305)	841-5101▬
Pensacola PNS		FSS	(904)	438-4390
St Petersburg PIE (Clearwater Intl)		FSS	(813)	527 2148/9
		FSS	(813)	527-4888★
Tallahassee TLH	DF	FSS	(904)	224-7101
		WB	(904)	222-3335
Tampa TPA (Tampa International)		WB	(813)	229-1708★
		WB	(813)	877-1677◆
Vero Beach VBR	DF	FSS	(305)	562-2167
			(305)	464-1817
W Palm Beach PBI (Palm Beach International)		FSS	(305)	832-5697★
		WB	(305)	683-3032◆

GEORGIA

Location and Identifier			Area Code	Telephone
Albany ABY	DF	FSS	(912)	435-6201
Alma AMG		FSS	(912)	632-4422 (0600-2200 EST)
Athens		WB	(404)	LI 3-3891◆
Atlanta FTY (Fulton Co.)	DF	FSS	(404)	344-1551
		FSS	(404)	755-6608★
		WB	(404)	767-3187◆
Augusta AGS (Bush Fld)		WB	(404)	798-6821
Brunswick SSI (Malcom McKinnon)		FSS	(912)	638-8641
Columbus		WB	(404)	322-1793◆ (0630-2045)
Macon MCN (Muni)	DF	FSS	(912)	788-5064
		WB	(912)	788-1100◆
Rome		WB	(404)	232-6801 (0700-1300 Mon-Fri) (0700-1100 Sat)
Savannah SAV (Travis)		FSS	(912)	234-2257/8▬
Valdosta VLD		FSS	(912)	CH 4-2361

IDAHO

Location and Identifier			Area Code	Telephone
Boise BOI (Air Terminal)		FSS	(208)	343-2525▬
Burley BYI		FSS	(208)	678-7451
Idaho Falls IDA (Fanning Field)	DF	FSS	(208)	522-9024
Lewiston		WB	(208)	743-3841
Malad City MLD		FSS	(208)	766-2971
Mullan Pass MLP		FSS	(208)	774-2001
Pocatello PIH		FSS	(208)	232-2032
		WB	(208)	233-0143◆

ILLINOIS

Location and Identifier			Area Code	Telephone
Champaign CMI (University of Ill.)		FSS	(217)	822-5211
Chicago		WB	(312)	686-2155◆
		WB	(312)	667-5055★
Joliet JOT	DF	FSS	(815)	725-3144
		FSS	(312)	242-3111
Moline MLI (Quad City)		FSS	(309)	762-2412
		WB	(309)	762-1726
Peoria PIA (Greater Peoria)		FSS	(309)	697-0751
		WB	(309)	637-6422◆
Quincy UIN (Baldwin)		FSS	(217)	885-3251
Rockford RFD (Greater Rockford)		FSS	(815)	965-6758
		WB	(815)	963-5816◆ (0515-2115)
Springfield SPI (Capital)		FSS	(217)	544-9012
		WB	(217)	523-5812◆
Vandalia VLA		FSS	(618)	283-0478

INDIANA

Location and Identifier			Area Code	Telephone
Evansville EVV (Dress Memorial)	DF	FSS	(812)	422-8120
		WB	(812)	424-9613◆
Ft. Wayne FWA (Baer Field)		FSS	(219)	747-3139
		WB	(219)	747-2577◆
Indianapolis IND (Weir-Cook)	DF	FSS	(317)	244-3316▬
		WB	(317)	244-2411★
Layfayette LAF (Purdue University)		FSS	(317)	743-1802/3
South Bend SBN (St. Joseph Co.)	DF	FSS	(219)	CE 3-4433
		WB	(219)	234-3937◆
Terre Haute HUF (Hulman)	DF	FSS	(812)	CR-2704

IOWA

Location and Identifier			Area Code	Telephone
Burlington BRL		FSS	(319)	752-4734
Cedar Rapids CID		FSS	(319)	364-3041
Davenport (via Moline Ill.)		WB	(319)	326-2677
Des Moines DSM		FSS	(515)	285-5691
		WB	(515)	284-4493◆
Dubuque		WB	(319)	582-3171 (0545-2105)
Mason City MCW		FSS	(515)	GA 3-7512
Ottumwa OTM		FSS	(515)	MU 2-1846
Sioux City SUX	DF	FSS	(712)	258-1060
		WB	(712)	255-3944◆
Waterloo ALO		FSS	(319)	AD 3-5528
		WB	(319)	234-1602◆

KANSAS

Location and Identifier			Area Code	Telephone
Concordia		WB	(913)	243-3141
Chanute CNU		FSS	(316)	HE 1-4450
Dodge City DDC		FSS	(316)	HU 3-3441
		WB	(316)	483-3311
Emporia EMP		FSS	(316)	DI 2-7475
Garden City GCK (New Municipal)	DF	FSS	(316)	BR 6-2531
Goodland GLD	DF	FSS	(913)	899-7154▬
Hill City HLC		FSS	(913)	674-5642
Hutchinson HUT		FSS	(316)	2-4851
√Manhattan MHK		FSS	(913)	PR 8-2162 (0700-1900) (Other hrs. Salina) LC PR 6-9751
Russell RSL		FSS	(913)	483-2312
Salina SLN		FSS	(913)	TA 5-5308
Topeka TOP (Phillip Billard)		FSS	(913)	232-5478
		WB	(913)	CE 4-8659◆
Wichita ICT		FSS	(316)	942-2261/2▬
		WB	(316)	942-3204★

KENTUCKY

Location and Identifier			Area Code	Telephone
Bowling Green BWG (Warren County)		FSS	(502)	843–4424
Erlanger (Gtr Cincinnati Arpt)		WB	(513)	381–8195◆
Lexington LEX (Blue Grass)		FSS	(606)	254–5143
		WB	(606)	255–1774◆
London LOZ		FSS	(606)	864–4410
Louisville LOU (Bowman)		FSS	(502)	451–5344
		WB	(502)	368–2188◆
Paducah PUK (Barkley)		FSS	(502)	442–1551

LOUISIANA

Location and Identifier			Area Code	Telephone
Alexandria AEX	DF	FSS	(318)	445–3663▬
Baton Rouge BTR (Ryan)		FSS	(504)	EL 5–2763
		WB	(504)	357–9943◆
Lafayette LFT		FSS		CE 5–3752
Lake Charles LCH		FSS	(318)	477–1784▬
Monroe MLU	DF	FSS	(318)	322–3157
New Orleans MSY		FSS	(504)	943–5535
		FSS	(504)	947–0679★
		WB	(504)	729–2520◆
Shreveport SHV (Greater Shreveport)		FSS	(318)	ME 1–3661
		WB	(318)	631–1141◆

MAINE

Location and Identifier			Area Code	Telephone
Augusta AUG (State)	DF	FSS	(207)	622–6491
Caribou		WB	(207)	496–8931
Houlton HUL (Memorial International)	DF	FSS	(207)	532–2475
Millinocket MLT		FSS	(207)	723–8343
Old Town OLD		FSS	(207)	827–2363
		FSS	(207)	827–4010
Portland PWM		FSS	(207)	SP 5–0602
		WB	(207)	775–3071◆

MARYLAND

Location and Identifier			Area Code	Telephone
Baltimore		WB	(301)	761–1333◆
		WB	(301)	766–0757★
Salisbury SBY (Salisbury-Wicomico)		FSS	(301)	742–8719

MASSACHUSETTS

Location and Identifier			Area Code	Telephone
Boston BOS (Logan)		FSS	(617)	223–6447
		FSS	(617)	567–7420
		WB	(617)	569–1773★
Nantucket ACK	DF	FSS	(617)	228–0815▬
		WB	(617)	228–0971
Worcester ORH		FSS	(617)	PL 5–6083
		WB	(617)	798–2124◆ (0600–2200)

MICHIGAN

Location and Identifier			Area Code	Telephone
Alpena		WB	(517)	354–8733◆
Battle Creek BTL (Kellogg)		FSS	(616)	962–7878
Detroit DET (City)	DF	FSS	(313)	372–3737
		FSS	(313)	327–1711★
		WB	(313)	278–7340◆
Flint FNT (Bishop)		FSS	(313)	CE 3–6250
		WB	(313)	CE 4–3987◆
Grand Rapids GRR (Kent County)		FSS	(616)	949–4090
		WB	(616)	949–4251◆
Houghton CMX (Houghton County)		FSS	(906)	482–0380
Houghton Lake (Roscommon County)		WB	(517)	366–5392
Jackson JXN (Reynolds Mun.)		FSS	(517)	ST 4–9640
Lansing LAN (Capital City)		FSS	(517)	482–9237
		WB	(517)	489–4603◆
Marquette MQT		FSS	(906)	GR 5–4197
		WB	(906)	226–8642◆ (0500–2100)
Muskegon MKG (Muskegon County)		FSS	(616)	798–1222
		WB	(616)	798–3048
Pellston PLN (Emmet County)		FSS	(616)	LE 9–8401
Saginaw MBS (Tri City)	DF	FSS	(517)	695–4111
Saulte Ste Marie SSM		FSS	(906)	632–8271
		WB	(906)	632–9461
Traverse City TVC		FSS	(616)	947–5056
Ypsilanti		WB	(313)	482–5001 (0530–2130)

MINNESOTA

Location and Identifier			Area Code	Telephone
Alexandria AXN		FSS	(612)	763–3710
Duluth		WB	(218)	722–7982◆
Hibbing HIB (Chisholm-Hibbing)	DF	FSS	(218)	262–1820
International Falls		WB	(218)	285–5151
Minneapolis MSP St. Paul Intl		FSS	(612)	PA 9–9386
(Wold-Chamberlain)	DF	FSS	(612)	PA 9–1957
		WB	(612)	PA 9–4429◆
		WB	(612)	729–9339★
Redwood Falls RWF		FSS	(507)	637–8530
Rochester RST		FSS	(507)	289–1579▬
St. Cloud		WB	(612)	251–3213 (0400–2200)
St. Paul (See: Minneapolis)				

MISSISSIPPI

Location and Identifier			Area Code	Telephone
Greenwood GRW		FSS	(601)	GL 3–2631
Jackson JAN (Thompson Field)		FSS	(601)	939–5212
		WB	(601)	939–5881◆

MISSISSIPPI (Con't.)

Location and Identifier		Area Code	Telephone
McComb MCB (Pike County)	FSS	(601)	684-7070
Meridian MEI (Key Field)	FSS	(601)	482-1243
	WB	(601)	483-3725◆
Vicksburg	WB	(601)	636-1193
			(0630-1530 Mon-Fri)
			(0630-1130 Sat, Holidays)
			(clsd Sunday)

MISSOURI

Location and Identifier		Area Code	Telephone
Cape Girardeau GGI	FSS	(314)	ED 4-2803
Columbia CBI	FSS	(314)	449-1136/7
	WB	(314)	443-4332
Joplin JLN	FSS	(417)	MA 3-6868
Kansas City MKC	FSS	(816)	GR 1-5484■
	WB	(816)	471-2131★
Kirksville IRK	FSS	(816)	MO 5-4132
St. Joseph STJ (Rosecrans Memorial)	FSS	(816)	BR 9-2394
St. Louis STL (Lambert)	FSS	(314)	PE 1-0900
	WB	(314)	731-3001◆
	WB	(314)	PE 1-3004★
	WB	(314)	848-3303★
			(Hazlewood)
Springfield SGF DF	FSS	(417)	862-3588■
Vichy VIH (Rolla National)	FSS	(314)	AX 9-3677

MONTANA

Location and Identifier		Area Code	Telephone
Billings BIL (Logan Field) DF	FSS	(406)	259-4545■
Bozeman BZN (Gallatin Field)	FSS	(406)	586-6520
Butte BTM (Silver Bow)	FSS	(406)	723-3004
Cut Bank CTB	FSS	(406)	938-4522
Dillon DLN	FSS	(406)	683-5651
Glasgow Intl	WB	(406)	228-4042
			(0300-2400)
Great Falls GTF (International)	FSS	(406)	452-6495
	WB	(406)	453-3512◆
Havre	WB	(406)	265-6424
			(0430-1315)
Helena HLN	FSS	(406)	442-9902
	WB	(406)	442-8260
Kalispell	WB	(406)	756-4829
Lewistown LWT	FSS	(406)	538-3639
Livingston LVM (Mission Field)	FSS	(406)	222-2411
Miles City MLS DF	FSS	(406)	232-1503
Missoula MSO (Missoula City)	FSS	(406)	542-2230
	WB	(406)	543-7996◆

NEBRASKA

Location and Identifier		Area Code	Telephone
Chadron CDR	FSS	(308)	HE 2-31
Grand Island GRI	FSS	(308)	382-51
	WB	(308)	384-19
Imperial IML	FSS	(308)	TU 2-48
Lincoln LNK (Mun/AFB)	FSS	(402)	477-392■
Norfolk	WB	(402)	371-33
			(0530-213
North Plate LBF (Lee Bird)	FSS	(308)	LE 2-4034■
Omaha OMA (Eppley)	FSS	(402)	341-6178■
	WB	(402)	342-3603★
Scottsbluff BFF	FSS	(308)	635-261
	WB	(308)	632-62
Sidney SNY	FSS	(308)	254-313
Valentine	WB	(402)	376-344

NEVADA

Location and Identifier		Area Code	Telephone
Elko EKO	FSS	(702)	738-6506■
Ely ELY (Yelland Filed)	FSS	(702)	2[illegible]-204
	WB	(702)	2[illegible]-24
Las Vegas LAS (McCarran)	FSS	(702)	736-1573 4■
Lovelock LOL (Derby Field) DF	FSS	(702)	273-244
Reno RNO	FSS	(702)	784-54
	WB	(702)	784-5402◆
Tonopah TPH (Nye County)	FSS	(702)	482-64
Winnemucca	WB	(702)	623-22

NEW HAMPSHIRE

Location and Identifier		Area Code	Telephone
Concord CON	FSS	(603)	224-7474■
Lebanon LEB (Regional)	FSS	(603)	298-6

NEW JERSEY

Location and Identifier		Area Code	Telephone
Atlantic City	WB	(609)	641-4327◆
Millville MIV	FSS	(609)	825-1
Newark	WB	(201)	624-5
			624-7272★
			(Via New York)
Teterboro TEB	FSS	(201)	288-

NEW MEXICO

Location and Identifier		Area Code	Telephone
Albuquerque ABQ (Sunport/Kirtland)	FSS	(505)	243-75■
	WB	(505)	242-2661★
Carlsbad CNM	FSS	(505)	TU 5-20
Clayton	WB	(505)	374-951
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)

NEW MEXICO (Con't.)

Location and Identifier			Area Code	Telepone
Deming DMN		FSS	(505)	546-2726
Farmington FMN	DF	FSS	(505)	325-9271
Grants GNT		FSS	(505)	AT 7-3011
Hobbs HOB (Lea County)		FSS	(505)	EX 3-3222
Las Vegas LVS		FSS	(505)	GA 5-7411
Raton		WB	(505)	445-3891 (0545-1225)
Roswell ROW	DF	FSS	(505)	622-6780▬
Santa Fe SAF		FSS	(505)	YU 3-6581
Silver City		WB	(505)	538-9023 (0530-2000 Mon-Fri)
Truth or Consequences TCS	DF	FSS	(505)	894-3277
Tucumcari TCC	DF	FSS	(505)	461-2900
Zuni ZUN		FSS	(505)	782-3770

NEW YORK

Location and Identifier			Area Code	Telepone
Albany ALB (Albany County)		FSS	(518)	869-9225
		WB	(518)	UN 9-9173◆
Binghamton BGM (Broome County)		FSS	(607)	RA 9-6145
		WB	(607)	797-0784◆
Buffalo BUF (Greater Buffalo)		FSS	(716)	632-6083▬
		WB	(716)	632-5042★
Elmira ELM (Chemung County)		FSS	(607)	RE 9-2471
Glens Falls GFL (Warren County)		FSS	(518)	RX 3-2593
Islip ISP (Long Island MacArthur)	DF	FSS	(516)	JU 8—1061
(New York)		FSS	(914)	723-4330
		FSS	(212)	995-8657
Massena MSS	DF	FSS	(315)	RO 9-2033
New York JFK (John F. Kennedy Intl)		IFSS	(212)	995-8659
		WB	(212)	656-7474★
New York (John F. Kennedy Intl and LaGuardia)		WB	(212)	995-9151◆
Poughkeepsie POU (Dutchess County)		FSS	(914)	462-3400
Rochester ROC (Monroe County)		FSS	(716)	325-3320
		WB	(716)	FA 8-7391◆
Syracuse SYR (Hancock)		FSS	(315)	GL 4-2479
		WB	(315)	454-1214◆
Utica UCA (Oneida)		FSS	(315)	RE 6-9023
Watertown ART		FSS	(315)	NE 9-3321

NORTH CAROLINA

Location and Identifier			Area Code	Telepone
Asheville AVL		FSS	(704)	684-4401
		WB	(704)	684-6906◆
Cape Hatteras		WB	(919)	995-2321
Charlotte		WB	(704)	399-6000◆
Durham		WB	(919)	596-2326
Elizabeth City ECG (Coast Guard Air Station)		FSS	(919)	338-3808
Fayetteville FAY (Grannis Field)		FSS	(919)	483-7904
Greensboro		WB	(919)	299-9499◆
Hickory HKY		FSS	(704)	DA 7-8281

NORTH CAROLINA (Con't.)

Location and Identifier			Area Code	Telephone
High Point		WB	(919)	883-1927 (Answered in Greensboro)
New Bern EWN (Simmons-Nott)		FSS	(919)	ME 7-2080
Raleigh-Durham RDN		FSS	(919)	787-4289
		WB	(919)	787-4092◆ 596-2446 (Durham Exchange) 275-6341 (Greensboro Exchange)
Rocky Mount RMT		FSS	(919)	442-7171
Wilmington ILM (New Hanover County)		FSS	(919)	762-7567
		WB	(919)	762-3240
Winston-Salem		WB	(919)	725-1731
		WB	(919)	724-2208◆

NORTH DAKOTA

Location and Identifier			Area Code	Telephone
Bismarck BIS		FSS	(701)	CA 3-8790
		WB	(701)	223-0920◆
Dickinson DIK		FSS	(701)	225-2989
Fargo		WB	(701)	232-1584◆
Grand Forks GFK (International)	DF	FSS	(701)	772-7201
Jamestown JMS		FSS	(701)	252-4350
Minot MOT (International)		FSS	(701)	833-8112
Williston		WB	(701)	572-3198◆ (0445-2045)

OHIO

Location and Identifier			Area Code	Telephone
Akron ACO		FSS	(216)	ST 4-1246/7
		WB	(216)	896-2246◆
Canton		WB	(216)	499-7933◆
Cincinnati CVG (Lunken)		FSS	(513)	321-1434
		WB	(513)	381-2300★
		WB	(513)	381-6706◆
(Greater Cincinnati)		WB	(513)	684-2129◆
		WB	(606)	283-3696◆
Cleveland CLE (Hopkins)		FSS	(216)	267-3700▬
		WB	(216)	267-3410★
Columbus CMH		FSS	(614)	237-8478▬
Dayton DAY		FSS	(513)	898-4639
		WB	(513)	898-4620◆ (Vandalia Exchange)
Findlay FDY	DF	FSS	(419)	GA 2-3237
Mansfield MFD		FSS	(419)	524-5323
		WB	(419)	522-7070 (0600-1800)
Toledo TOL (Express)		FSS	(419)	242-4171
		WB	(419)	385-4921◆
Youngstown YNG		FSS	(216)	539-5121
		FSS	(216)	856-4806
		WB	(216)	545-2447◆
Zanesville ZZV		FSS	(614)	452-8611

FSS INFO. & WEATHER BUREAU TELEPHONE NOS.

OKLAHOMA

Location and Identifier			Area Code	Telephone
Ardmore ADM		FSS	(405)	CA 3-6772
		FSS	(405)	DU 9-5441
Gage GAG	DF	FSS	(405)	923-2601
Hobart HBR		FSS	(405)	GE 6-4234
McAlester MLC	DF	FSS	(918)	GA 3-4091
Oklahoma City OKC (Wiley Post)		FSS	(405)	SU 9-7452
		WB	(405)	WI 3-9873★
		WB	(405)	685-6350◆
(Answered personally after PATWAS message.)				
Ponca City PNC		FSS	(405)	RO 5-5485
Tulsa TUL		FSS	(918)	TE 8-3316▬
		WB	(918)	835-2364★

OREGON

Location and Identifier			Area Code	Telephone
Astoria		WB	(503)	861-2722
Baker BKE		FSS	(503)	523-2961
Eugene EUG (Mahlon-Sweet)		FSS	(503)	343-7738
		WB	(503)	688-9321◆
Klamath Falls LMT (Kingsley Field)		FSS	(503)	882-4641
		WB	(503)	882-5060 (0800-1600)
Meacham		WB	(503)	Meacham 2 (0700-1500)
Medford MFR	DF	FSS	(503)	779-3241
		WB	(503)	773-1525◆
North Bend OTH		FSS	(503)	756-4916
Pendleton PDT	DF	FSS	(503)	276-1761
		WB	(503)	276-1852
Portland PDX (International)		FSS	(503)	AT 2-7293▬
		WB	(503)	282-2285★
Redmond RDM (Roberts Field)	DF	FSS	(503)	548-2522
Salem		WB	(503)	363-6151
The Dalles DLS		FSS	(509)	PO 7-1187

PENNSYLVANIA

Location and Identifier			Area Code	Telephone
Allentown ABE (Bethlehem-Easton)		FSS	(215)	264-4539
		WB	(215)	264-2241
Altoona AOO (Blair)		FSS	(814)	793-3113
Bradford BFD (Bradford-McKean)		FSS	(814)	362-8860
DuBois DUJ		FSS	(814)	328-2231
Erie ERI (Port Erie)		FSS	(814)	833-1345
		WB	(814)	833-1991◆
Harrisburg HAR (Harrisburg-York State)		FSS	(717)	233-5987
		WB	(717)	233-7315◆

PENNSYLVANIA (Con't.)

Location and Identifier			Area Code	Telephone
Philadelphia PNE (N. Philadelphia)	DF	FSS	(215)	OR 3-8020
		WB	(215)	726-7511◆
		WB	(215)	726-3503★ (0600-2300)
Philipsburg PSB (Mid-State)	DF	FSS	(814)	342-0830
Pittsburgh AGC (Allegheny)		FSS	(412)	462-3707
		WB	(412)	462-5585★
		WB	(412)	462-5586★
Pittsburgh (Greater Pittsburgh)		WB	(412)	771-2855◆
Reading (General Spaatz Fld)		WB	(215)	376-4103◆ (0800-0900 Sun, 0700-noon Sat) (0700-1630 Mon-Fri)
Scranton		WB	(717)	457-5650◆
Wilkes-Barre AVP (Wilkes-Barre/Scranton)		FSS	(717)	457-9600
		WB	(717)	457-5650◆ (toll call)
Williamsport IPT (Williamsport/Lycoming)		FSS	(717)	368-8547
		WB	(717)	368-1866◆

RHODE ISLAND

Location and Identifier			Area Code	Telephone
Providence PVD (Green)		FSS	(401)	RE 7-5300
		WB	(401)	737-0051◆

SOUTH CAROLINA

Location and Identifier			Area Code	Telephone
Anderson AND		FSS	(803)	225-7501
		FSS	(803)	225-5031◆
Charleston CHS	DF	FSS	(803)	747-5293▬
		WB	(803)	747-5778★
Columbia		WB	(803)	794-4054◆
Florence FLO	DF	FSS	(803)	662-8197
Greer GSP (Greenville)	DF	FSS	(803)	Greenville 239-3738▬ Spartanburg 585-5470
✓Myrtle Beach CRE (Crescent Beach)		FSS	(803)	448-3083 (0800-2000) (Other hrs Florence)

SOUTH DAKOTA

Location and Identifier			Area Code	Telephone
Aberdeen ABR		FSS	(605)	225-5264▬
Huron HON (W. W. Howes)		FSS	(605)	352-3806▬
Pierre PIR		FSS	(605)	224-5894
Rapid City RAP	DF	FSS	(605)	342-2302▬

SOUTH DAKOTA (Con't)

Location and Identifier			Area Code	Telephone
Sioux Falls FSD (Joe Foss Fld)		FSS	(605)	ED 8–4841
		WB	(605)	338–1441◆
Watertown ATY		FSS	(605)	TU 6–4581

TENNESSEE

Location and Identifier			Area Code	Telephone
Blountville		WB	(615)	323–8752◆
Chattanooga		WB	(615)	892–3747◆
Crossville CSV (Crossville-Cumberland)	DF	FSS	(615)	484–6711
Dyersburg DYR		FSS	(901)	285–4842 (0600–2200)
Jackson JKS (McKeller)		FSS	(901)	427–0611
Knoxville TYS (McGhee-Tyson)		FSS	(615)	577–6651
		WB	(615)	577–4805◆
(from Maryville)			(615)	982–3682
Maryville (See Knoxville)				
Memphis MEM	DF	FSS	(901)	398–9269▬
		FSS	(901)	398–2347★
Nashville BNA (Metropolitan)		FSS	(615)	254–6552/3
		WB	(615)	255–8732★
		WB	(615)	256–4468◆
Tri City TRI		FSS	(615)	323–7242

TEXAS

Location and Identifier			Area Code	Telephone
Abilene ABI		FSS	(915)	OR 4–6915▬
Alice ALI	DF	FSS	(512)	MO 4–4291
Amarillo AMA (Air Terminal)		FSS	(806)	349–1608▬
Austin AUS (Robert Mueller)		FSS	(512)	GR 8—6695▬
Beaumont BPT (Jefferson County)		FSS	(713)	722–0288
		WB	(713)	722–7011◆
Brownsville BRO (Rio Grande Valley International)		FSS	(512)	LI 6–6421
		WB	(512)	542–8231◆
Childress CDS		FSS	(817)	WE 7–3892
College Station CLL (Easterwood)		FSS	(713)	VI 6–8784/5
Corpus Christi		WB	(512)	883–3008◆
Cotulla COT		FSS	(512)	TR 9–2417
Dalhart DHT		FSS	(806)	CH 9–2006
Dallas Love Field DAL		FSS	(214)	FL 2–8491▬
		FSS	(214)	FL 7–4343★
Del Rio		WB	(512)	775–2115
El Paso ELP (International)		FSS	(915)	778–6448▬
		FSS	(915)	778–4487★

TEXAS (Con't.)

Location and Identifier			Area Code	Telephone
Fort Worth FTW (Meacham)		FSS	(817)	MA 4–8471
		WB	(817)	334–3362★
		WB	(817)	334–3340◆
Galveston GLS (Scholes)		FSS	(713)	SH 4–3255
		WB	(713)	763–5670
Gregg County GGG (Longview)		FSS	(214)	MI 3–2612
Houston HOU (International)		FSS	(713)	MI 5–6693▬
		WB	(713)	644–1507★
✓Junction JCT (Kimble Co.)		FSS	(915)	HI 6–3214 (0600–1800) (Other hrs San Antonio)
Lubbock LBB		FSS	(806)	PO 2–5802
		WB	(806)	762–2380◆
Lufkin LFK (Angelena County)	DF	FSS	(713)	NE 4–3544
McAllen MFE (Miller Field)	DF	FSS	(512)	MU 2–2878/9
Midland MAF (Air Terminal)	DF	FSS	(915)	563–2611▬
Mineral Wells MWL		FSS	(817)	FA 5–5922
Palacios PSX		FSS	(713)	824–2218
Port Arthur		WB	(713)	722–7011◆
San Angelo SJT (Mathis)		FSS	(915)	655–5638
		WB	(915)	655–9780◆
San Antonio SAN (International)		FSS	(512)	TA6–9575▬
Tyler TYR (Pounds)		FSS	(214)	LY 4–6301
Victoria		WB	(512)	445–1276◆
Waco ACT		FSS	(817)	PL 2–4811
		WB	(817)	754–1582◆
Wichita Falls SPS (Sheppard AFB/Wichita Falls Air Trml)	DF	FSS	(817)	322–1302▬
Wink INK	DF	FSS	(915)	LA 7–3351

UTAH

Location and Identifier			Area Code	Telephone
Bryce Canyon BCE		FSS	(801)	834–5311
Cedar City CDC	DF	FSS	(801)	586–9131
✓Delta DTA		FSS	(801)	4741 (0600–1800) (Other hrs Salt Lake City)
Milford		WB	(801)	387–2361 (0900–1700)
Salt Lake City SLC (Municipal No. 1)	DF	FSS	(801)	524–5183▬
		FSS	(801)	364–5571★
Wendover		WB	(801)	665–2382 (0430–2015)

VERMONT

Location and Identifier			Area Code	Telephone
Burlington		WB	(802)	862–2475 (0600–2300)
Montpelier MPV (Barre-Montpelier)	DF	FSS	(802)	223–2376
		FSS	(802)	878–3393 (from Burlington)

VIRGINIA

Location and Identifier			Area Code	Telephone
Blackstone BKT		FSS	(703)	292-3826
				(0600-2200)
Bristol		WB	(615)	323-8242◆
Chantilly (Dulles)		WB	(703)	661-8526◆
Charlottesville CHO (Charlottesville/ Albermarle)		FSS	(703)	973-3909
Danville DAN		FSS	(703)	793-1163
Lynchburg (Muni-Preston Glenn		WB	(703)	239-0345◆
				(0600-1930)
Newport News PHF (Patrick Henry)		FSS	(703)	877-0200
Norfolk		FSS	(703)	627-7084■
Richmond RIC (Byrd Flying Field)		FSS	(703)	737-5249■
Roanoke ROA (Woodrum)		FSS	(703)	362-1668■

WASHINGTON

Location and Identifier			Area Code	Telephone
Bellingham BLI	DF	FSS	(206)	734-6400
Ephrata EPH		FSS	(509)	SK 4-2361
Hoquiam HQM (Bowerman)		FSS	(206)	GE 9-3432
Olympia		WB	(206)	357-8386
Seattle SEA (Boeing)		FSS	(206)	RO 2-4000
		WB	(206)	682-3655★
Spokane SFF (Felts)	DF	FSS	(509)	KE 5-2906
		WB	(509)	624-5674◆
Toledo TDO (Toledo-Winlock)		FSS	(206)	864-2371
				(0500-2100)
Walla Walla ALW (City-County)		FSS	(509)	JA 9-1413
Wenatchee EAT (Pangborn)	DF	FSS	(509)	TU 4-5654
Yakima YKM		FSS	(509)	GL 3-9862
		WB	(509)	GL 7-4371

WEST VIRGINIA

Location and Identifier			Area Code	Telephone
Beckley		WB	(304)	252-3171◆
Bluefield BLF (Mercer County)		FSS	(304)	325-6521
Charleston CRW (Kanawha)		FSS	(304)	342-1371■
Elkins EKN (Randolph)		FSS	(304)	636-0810
		WB	(304)	636-1246◆
Huntington HTS (Tri-State)		FSS	(304)	453-3951■
Martinsburg MRB		FSS	(304)	AM 3-9353

WEST VIRGINIA (Con't.)

Location and Identifier			Area Codes	Telephone
Morgantown MGW	DF	FSS	(304)	292-3632
Parkersburg PKB (Wood County)		FSS	(304)	485-6421
		WB	(304)	422-3661
				(0700-1400 Mon-Fri)
				(0700-1200 Sat)
Wheeling HLG (Ohio County)		FSS	(304)	CR 7-1252

WISCONSIN

Location and Identifier			Area Codes	Telephone
Eau Clare EAU		FSS	(715)	835-9642
Green Bay GRB (Austin Straubel)	DF	FSS	(414)	494-7417■
La Crosse LSE		FSS	(608)	785-1225■
Lone Rock LNR (Tri-County)		FSS	(608)	583-2661
Madison MSN (Traux)		FSS	(608)	244-1033
		WB	(608)	249-6644◆
Milwaukee MKE (General Mitchell)		FSS	(414)	481-4414
		FSS	(414)	744-5860■
		WB	(414)	744-7810★
Wausau AUW		FSS	(715)	845-7396

WYOMING

Location and Identifier			Area Codes	Telephone
Casper CPR (Air Terminal)	DF	FSS	(307)	235-1555■
Cheyenne CYS		FSS	(307)	638-9711
		WB	(307)	638-3642◆
Lander		WB	(307)	332-2718
Laramie LAR (General Brees Field)		FSS	(307)	745-4010
Rawlins RWL		FSS	(307)	324-3241
Rock Springs RKS	DF	FSS	(307)	362-2121
Sheridan SHR (Sheridan County)		FSS	(307)	674-7426■
Worland WRL	DF	FSS	(307)	347-4122

PUERTO RICO

Location and Identifier			Area Codes	Telephone
San Juan SJU (Puerto Rico Intl)		IFSS		791-1780
		WB		791-0320

ATTENTION FAA PERSONNEL **ATTENTION FAA PERSONNEL**

AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE 1966–67

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Part

Effective Date	Part 1	Part 2	Part 3	Part 3A
November 10			October 24	October 24
November 15	October 14	October 30		
November 24				November 14
December 8			November 18	November 18
December 22				December 12
January 5			December 16	December 16
January 19				January 9
February 2			January 16	January 16
February 15	January 20			
February 16				February 6
March 2			February 10	February 10
March 16				March 6
March 30			March 13	March 13
April 13				April 3
April 27			April 10	April 10
May 11				May 1

Editorial Staff Telephone Number, Area Code 202—WO 2–4063.

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Court land: 0930-1730 Sun. Up to 12,500'.

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200-SS; intermittently week-days. Up to 14,500' MSL.

Gadsden:1000-1700 Weekends. Up to 12,500'.

Harvest: 9 mi from Huntsville VOR on a 297° radial. Suns and wk days. Up to 13,500'.

ARIZONA

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100' MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000' MSL and 24,000' MSL.

Parker: S and SW Parker Arpt. Wk ends. 0800-1700. Up to 12,500'.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000' MSL; 3 mi ESE. Up to 7000' MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000' MSL.

Tucson, Ryan Fld: Sat & Sun. Dalgt hrs. Up to 10,000'.

Yuma, Laguna Army Air Fld: 5.5 mi WNW at Senator Wash Dam, 1200-1700 Fris. Up to 20,000' MSL.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000' MSL.

Marked Tree: 2 mi S. Weekends SR-SS. Up to 12,500'.

Pine Bluff: 6 mi SSE Grider Fld. Weekends 1200-SS. Up to 12,500'.

CALIFORNIA

Antioch Arpt: Suns and occasionally Wed evenings. Up to 12,500'.

California City Arpt: Weekends and holidays. Up to 15,000' MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500'. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

El Centro NAF: 0700-1600P (1500-2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700' MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000' MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800'-15,000', opening at absolute alts of 2000'-2500'. Center of drop zone lctd at 36°38'N, 121°46'W in Restricted Area R-2511. Ctc Fritzsche Twr for advisory info.

Foss Lake Arpt: 6 mi on the 65° radial Oceanside VOR. Weekends and holidays Up to 15,000'.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000'.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500' MSL.

Imperial Beach: Weekends. 0800-1200. Up to 1500'.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000' MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld. 7 days a wk. SR-SS.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Los Banos Arpt: 3.5 mi SE; edge of V-113. Suns SR-SS. Up to 10,000'.

Perris Arpt: NE corner. Lgt wk-days; moderate weekends and holidays. Up to 9000' MSL.

● **San Diego, Brown Fld:** NW corner of Fld. Week days, morning hours. Up o 15,000'.

● **San Diego, Otay Reservoir:** Weekdays and ngts. Up to 15,000'.

● **San Diego Co.:** 2 mi ESE of Brown Fld, Adj Mexico. Weekdays and ngts. Up to 15,000'.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Skylark: 15 NM SSW Lgt weekday; moderate weekends, holidays Up to 9000'.

Sonoma Valley: Weekends (occansionally during the wk.) 0800-SS. Up to 15,000'.

Taft Arpt: About 6 mi E. Daily, up to 20,000'.

Winters-Davis, Yolo Co. Intl Arpt: Weekends and occasionally week days. SR-SS. Up to 12,500'.

COLORADO

Aspen: 2 mi SE Sardy Fld: Spasmatic with no set days. Daylgt hrs. Up to 8,000'.

Boulder: 3 mi NE of arpt. Wk-ends and holidays. 0800-SS. Up to 13,000' AGL.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat. Sun and holidays; week days 0500-0800 and 1600-1900. Up to 18,000' MSL.

Denver, C&S Arpt: 2.5 mi SE of Cherry Creek Dam. 0800-SS weekends and holidays. Up to 13,200' MSL.

Grand Junction: 10 mi SE Walker Fld. Weekends, holidays Dalgt hrs. Up to 13,000'.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Loveland: 5 mi NE. Wk-ends and holidays. Up to 18,000′ MSL.

CONNECTICUT

Cheshire: 2 mi S of town; W of Route 10. Weekends. 1200–SS. Up to 12,500′.

Harwinton: 0800–dusk. Weekends. Up to 7200′.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Clewiston, Airglades Arpt: Up to 15,000′. Daily SR–SS. Occasional ngts.

Deland Mun Arpt: Up to 7,000′ daily and weekends.

Eglin AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500′.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays.

● **Green Cove Springs:** Weekends 0800–1800. Up to 12,500′.

Homestead AFB: Occasionally. Up to 1,000′ MSL.

Hewey Arpt: Weekends. Up to 10,000′.

Jacksonville: (1) 5 mi N of Cecil Fld. Weekends. 0800–1600. Up to 15,000′. (2) 2 mi NW of Herlong Fld. Weekends. 0800–1600. Up to 7,500′.

Kissimmee Arpt: Daily and weekends. Up to 12,000′.

Milton "T": 3mi NE. Weekends and holidays. Up to 12,500′.

Ovita Arpt: Wk-ends. 0700–SS. Up to 12,000′ MSL.

Palatka: Suns. 0800–1600. Up to 7500′.

Palatka, Kay Larkin Arpt: Weekends.

Sanford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.

Umatilla Arpt: 32 NM 325° rad Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.

● **Zephyrhills Arpt:** Daily SR–SS. Up to 12,500′.

GEORGIA

Cartersville, Cline Arpt: Weekends. Up to 12,500′ AGL.

Cleveland, White Co Arpt: Weekends. Up to 12,500′.

Cohutta: 10 mi N Dalton. Weekends. 1200–1900. Up to 13,500′.

Columbus (Victory Drive): Used for demonstration jumping only. Up to 12,500′.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

Fitzgerald: Daily, mostly on Sats and Suns. 0900–1700. Up to 12,500′.

Fort Benning: Daily. 0600–2000. Up to 18,000′.

Ft. Steward: Daily, Sats and Suns. Up to 15,000′.

Jasper, Pickens County Arpt: Daily and weekends. Up to 6935′ MSL.

Jefferson: 5 mi S. Weekends. Sun. 1200 to 1900. Up to 12,000′.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

Waycross: Weekends. 1000–1600. Up to 12,500′.

IDAHO

Boise, Floating Feather Arpt: Wk-days. Hvy on wk-ends 0700–1900. Up to 12,000′ MSL.

Weiser: 1500Z–SS. Up to 12,000. Ending last Sun in Oct.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.

Antioch: 4 mi E. Wk-ends and holidays.

Belleville, Flying Dutchman: 1 mi SW city. Wk-ends SR–SS. Up to 12,500′ MSL.

Chicago, Hammond Arpt: Weekends. Up to 12,500′.

Clinton: ½ mi E. Weekends. 1200–SS. Up to 10,000′.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

Hebron Arpt: Wed, wk-ends, and holidays. Up to 7500′ MSL.

Hillsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

Pekin: 3 mi S. Weekends. 1200–SS. Up to 15,000′.

Sparta (Hunter Fld): Weekends and holidays. Up to 12,500′.

INDIANA

Lebanon, Combs Fld: Weds and Suns, dalgt hrs. Up to 12,500′.

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

Rising Sun Arpt: Wk-ends and holidays. Within 5 mi radius. Up to 15,500′.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.

Des Moines: 3 mi radius of Camp Dodge. SR–SS wk-ends. 1500–SS wk-days. Up to 12,500′ MSL.

Mechanicsville: 5S. 2 mi radius. Weekends and occasionally wk days SR–SS. Up to 15,000′.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

Northwood: Weekends. 0900–SS. Up to 13,000′.

Sheldon: Weekends. 1400Z to 0200Z. Up to 7500′.

Sioux City: 5 mi W. Daily. 1400Z to 0200Z. Up to 10,000′.

KANSAS

Concordia: 3 mi SE. SR–SS wk-ends. Up to 10,500′ MSL.

Emporia: 3.2 NM SW Forbes AFB. Cont Mon thru Fri. Up to 9000′.

Fort Leavenworth Military Reservation: Weekends and holidays Occasionally weekdays. Up to 12,500′.

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Knock Fld: 4 mi E McConnell AFB. Weekends and intermittently other times. Occasionally ngts. Up to 12,500′.

Maize Arpt: Weekends and intermittently at other times. Up to 22,000′. Occasionally ngts.

Manhattan: 2 mi SE of Tuttle Creek Dam. SR–SS wk-ends and holidays. Up to 12,500′ MSL.

Oxford: Weekends. 1300–1900. Up to 13,000′.

Topeka, Skyranch Arpt: SR–SS wk-ends and holidays, occasional wkdays. Up to 12,500′ MSL.

KENTUCKY

Ashland, Boyd Co.: Wed and wkends.

Fort Knox: 3 mi SW of Godman AAF weekends and holidays, 1300–1700. Up to 10,000′.

LOUISIANA

Abbeville: Weekends. 0900–SS. Up to 17,000′.

Alexandria, (England AFB): 0700-2300 weekedays; 0900-1800 weekends.

Baton Rouge, Ryan Arpt: 6NE. Dalgt hrs. Up to 13,000 MSL.

Belle Chasse: Once a week. Up to 7500′.

Bodcaw: SR–SS wk-ends. Up to 13,000′ MSL.

Cecilia (Bordelon's Airstrip): 5 mi E. Weekends, occasional ngts. 0900–SS. Up to 12,000′.

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.

Fort Polk, Polk AAF: 2 nmi radius.

Hammond: SR–SS seven days a wk. Up to 15,000′.

Houma—Terrebonne Arpt: Weekends SR–SS. Up to 15,000.

Mansfield Arpt: SR–SS wk-ends. Up to 13,000′ MSL.

Pollock Arpt: SR–SS wk-ends; 1200–SS wkdays. Up to 13,000′ MSL.

Youngsville: Weekends. 0900–SS. Up to 13,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland Mun: Up to 12,000′.

Edgewood: 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 2200. Up to 20,000′.

Patuxent River NAS: On V-213. 2200–2400 weekdays; 1500–2100Z Sat, Sun and holidays. Up to 12,500′.

Stevensville, Carroll's Arpt: Weekends. Up to 12,500′.

MASSACHUSETTS

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Day time only. Up to 15,000′.

Orange Muni Arpt: Day time only. Up to 15,000′.

Pepperell Arpt: Day time only. Up to 15,000′.

Tauton Muni Arpt: Day time only. Up to 15,000′.

MICHIGAN

Clio: 1 mi W. Weekends 1000-dusk. From 12,500′.

E. Tawas, Iosco Arpt: Up to 13,500′.

Empire: 3 mi S. Weekends. Dawn-Dusk. Up to 12,500′.

Gaylord: Weekends. Dawn-Dusk. Up to 12,500′.

Grand Rapids (So. Kent Fld): Weekends. 0900–dusk. Up to 12,000′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Lake City: 6mi E, 1 N. Weekends. SR–SS. Up to 12,500′.

LaSalle: 5 mi S of Custer Arpt. 0900–SS. Up to 12,500′.

Marksfield, Lawton: Sat and Sun. 0900–SS. Up to 15,000′.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Midland: Sat, Sun, Wed. SR–SS. Up to 12,500′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

Nunica: 1 mi SE. Up to 15.000′.

Saginaw Arpt: Weekends. Up to 13,000′.

Tecumseh Arpt: Daily. Up to 17,500′.

Traverse City: Weekends. SR–SS. Up to 12,500′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Monticello, Flynn Arpt: Wk-end. Up to 12,000′ AGL.

Rosemount: 3 mi SE. Up to 2500′.

Stanton, Carleton Arpt: Wed 1600–SS during June; July and Aug wk-ends 0800–SS. Up to 14,500′ AGL.

MISSISSIPPI

Clarksdale: Anytime during dalgt hrs. Up to 10,000′.

Jackson: 10 mi SW. 0900–SS. Weekends. Up to 12,500′.

Louisville: 5 mi S. Weekends. Up to 12,500′.

Lucedale, Farmco Arpt: Weekends and holidays SR–SS. Up to 12,500′ MSL.

Ocean Springs, Gulfpark Arpt: SR–SS Sats, Suns, holidays and occasional wk days. Up to 12,500′ AGL.

MISSOURI

Columbia Muni Arpt: Weekends and holidays. Up to 12,000′ MSL.

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lobmaster Arpt: Weekends and holidays. Up to 11,000′.

Valleroy: Weekends. 1200–1800. Up to 8000′.

Vichy, Rolla Natl Arpt: Daily SR–SS. Up to 12,500′.

MONTANA

Belgrade: 6 mi NW of Gallatin Airfield. Sat, Sun, holidays. 0800–dusk. Up to 10,000′.

Glendive: Sat and Sun, occasionally wk days.

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Kalispell: Weekdays 1700–dark, weekends SR–SS. Up to 13,000′.

Laurel: Sat, Sun. SR–SS. Up to 16,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: 7 days a wk. Up to 12,500′ MSL.

Las Vegas Air Terminal: 3.5 mi WSW. 7 days a week. Up to 12,500′.

Silver Springs Arpt: Daily SR–SS. Up to 12,500′ MSL.

NEW HAMPSHIRE

Hollis: 3 mi SW Boire Fld, Nashua. Weekends. Dawn-dusk. Up to 12,600′.

Hooksett: Tues, Sat Sun, and holidays. 0900–2100. Up to 12,500′.

Milan, Berlin Arpt: Tues, Wed, Thur, Sat and Sun. 0900–dusk. Up to 5,200′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpt: Mon, Wed, Thur, and Fri. Dawn to dusk. Up to 12,500′.

Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

● **Manville, Kupper Arpt:** ½ mi SW rnwy. Dawn to dusk. Up to 15,000′.

●**Mt. Holly, Burlington Co. Arpk:** Weekends. Up to 12,500′.

Wertsville, Adams Air Park: 0800–SS. Up to 12,500′.

NEW MEXICO

Alamogordo Muni Arpt: Fri, Sat, Sun and holidays SR–SS. Up to 12,500′ AGL.

Albuquerque: 6 mi NE ABQ VORTAC weekend and holidays. Up to 18,000′.

Belen: 3½ mi SE. Suns SR–SS. Up to 12,500′ AGL.

Roswell Arpt: 8 mi W. Wk-ends 0700–1400. Up to 7,500′ MSL.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Fort Wadsworth, Miller, AAF: 1 mi from arpt bndry in all quadrants. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.

Gardiner Airfield: 1 mi radius wk-ends and holidays SR–SS. Up to 15,000′ MSL.

Greene Arpt: Within 5 mi radius. Daily 1100Z–SS. Up to 12,500′.

Northville, Red Barn Arpt: 0.2NM E. 0900–2000. Up to 11,500′.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MSL.

Randolph Arpt: Daily. Up to 15,000′.

Staten Island, Miller Army Airfld: 1 mi from arpt bndry in all quads. Sats 1300–1900Z, 0100–0400Z. Up to 1500′ MSL.

Stormville Arpt: Weekends and holidays. Up to 12,000′.

Wales-Aurora Arpt: 2 mi E of Aurora. SR–½ hr past SS. Up to 13,500′ MSL

Wallkill (Galesville): Every day of wk. 1000-2130. Up to 14,000′.

NORTH CAROLINA

Brevard: Sat and Sun. 1200–1900. Up to 12,500′.

Charlotte, Brockenborough Arpt: 5 mi N. Wed and Fri 1500–SS, Sat and Sun 1200–SS. Up to 14,000′.

Erwin Arpt: Weekends.

Fountain: Weekends. 0900-1630. Up to 13,000′.

New River MCAF: On V157 1100–0300 daily from 23,500′.

Oak Grove OLF: Sat, Sun and holidays from 0800-1830. Up to 15,000′.

Roanoke Rapids, Halifax Co. Arpt: 0800-dusk. Sat, Sun, holidays. Up to 13,000′.

Salisbury, Rowan Co. Arpt: Suns 12 noon–dusk. Up to 12,000′.

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Wade, Gordon Fld: 2 mi radius. Day and ngt, most activity week-ends. Up to 12,500′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

Ada Arpt: Wk-ends SR–SS. Up to 12,500′ AGL.

Alliance, Barber Airfield: 5 mi N. Daily 1100Z–1 hr past SS. Up to 15,000′.

Avon Arpt: Weekday mornings and all day weekends.

Birmingham, Ortner Arpt: Daily during dalgt hrs. Up to 12,500′.

Brunswick Arpt: 1300–0100Z daily. Up to 8,500′ MSL.

Circleville: 5 mi NNE. Sun 1700Z–2400Z. Up to 12,000′

Columbus Mun: 17 mi SW. Daily SR–SS. Up to 25,000′.

Darbydale: Daily 1000–SS. Up to 12,500′ AGL.

Elyria, Nimrod Arpt: 1300Z–0200Z until Nov. 30. Up to 12,500′ AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.

Galloway, Columbus Arpk: Wkends, holidays dalgt hrs and Wed 1600–SS.

Geneva, Germack Arpt: 0900–2100 EST Sat and Sun. Up to 12,500′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.

Lenox Arpt: Sat and Sun. 0900 2100 EDST. Up to 12,500′.

Lima: Weekends. 1200–SS. Up to 12,500′.

Medina, Freedom Fld: 3 mi SE. Daily 1500–0300Z. Up to 18,000′ MSL.

Oberlin: Daily 1600 dark. Up to 12,500′.

Orrville Arpt: 16 SW of Akron-Canton Arpt. Daily 1300–0200Z. Up to 12,500′ AGL.

Piqua Arpt: Up to 12,000′. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Daily. Up to 12,500′.

Shelby, American Tower Arpt: Weekends Sunrise-Sunset. Up to 12,500′.

South Dayton Arpt: Up to 18,000′. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.

Valley City: 3.5 mi W. Wed 2200–0100Z. Up to 12,500′ AGL.

Van Wert: Weekends 1200–SS. Up to 12,500′ AGL.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

Youngstown, Denman's Fld: 1500Z–SS. Up to 7000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Fort Sill: Weekend. Dawn-dusk. Up to 12,500′.

Frederick: Weekend. Dawn-dusk. Up to 10,000′.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Albany: 1½ mi NE of arpt. Weekends 1000–SS. Up to 13,000′ MSL.

Ashland Arpt: Dalgt. wk ends, holidays and evenings. Up to 9,000′.

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 1 mi N and 3 mi SE. Periodically June thru Sept. From 2000′ AGL.

Creswell: 2 mi SW. Thurs, Fri, Sat, 1600–2030. Up to 15,000′ MSL.

Eugene, Mahlon Sweet Fld: ½ mi E. Weekends, SR-SS. Up to 13,000′ MSL (Sept 1 thru Apr 30).

Eugene, T-Bird Arpt: 5 mi W. Weekends SR-SS. Surface to 13,000′ MSL (May 1 thru Aug 31).

Medford Arpt: 4 mi SW. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Oakridge: 1 mi NE. Sun 0700–1900. Weekday evenings, 1700–1900. Up to 12,000′.

● **Portland:** ½ mi S and 3 mi E of Scholl Arpt, Orchards, Wash. Up to 15,000′ AGL.

● **Portland:** 4 mi N Aurora Flight Strip, Aurora, Oreg. Up to 15,000′ AGL.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

Roseburg: 5 mi NE of arpt. Weekends. 1000–1700. Up to 8000′.

PENNSYLVANIA

Coudersport, Cherry Springs Arpt: Up to 10,000′.

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

Easton, Bethlehem–Easton Arpt: 1300-dark weekends and holidays. Up to 7000′.

Erie: 12 mi E. Wk-ends and holidays. SR–SS. Up to 12,500′ AGL.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 15,000′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Maytown, Donegal Arpt: 2 mi NE. Weekend SR-SS. Up to 15,000′ MSL.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

New Hanover Arpt: Most activities weekends. Up to 15,000′ MSL.

Quakertown, Upper Bucks Co. Arpt: 7 mi E. Suns 0900–SS. Up to 12,500′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

Thomasville, York-Thomasville Arpt: Tues and Sat. Dawn-dusk. Up to 15,000′.

Williamsport-Lycoming Co. Arpt: 4 mi S. Weekdays 1700–SS; weekends 0900–SS. Up to 12,000′ MSL.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Clemson, Oconee Co. Arpt: Sat and Sun afternoon. Up to 13,000′.

Darlington Co. Arpt: Thurs, Sat and Sun SR–SS. Up to 15,000′ MSL.

Fairfax, Padgett Arpt: Weekends and Holidays. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 800′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Spartanburg Muni Arpt: Sat and Sun afternoon. Up to 13,000′.

Sumter Arpt: Daily 1500Z to sunset. From 7,200′, Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Daily SR-SS. Up to 12,500′.

Pierre: 4 mi NW arpt. Wk-ends SR–SS. Up to 10,000′ MSL.

Walterboro Mun Arpt: Weekends. From 10,000′.

SOUTH DAKOTA

Belle Fouche: Weekend. 0900–1500. Up to 7000′.

Pierre: 4 mi NW arpt. Wk-ends SR-SS. Up to 10,000′ MSL.

Rapid City Muni Arpt: 5 mi SE. Weekend. Up to 10,000′.

TENNESSEE

Athens, McMinn County Arpt: 6 mi W. Up to 12,500′.

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 5 mi NE 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Columbia, Hunter Arpt: Noon–SS. Wed, Weekends and holidays. Up to 16,000′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Alvarado: 1 mi N of City. Wkdays 1200–SS. Wk-ends SR–SS. Up to 15,000′ AGL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Bonham Arpt: Weekends SR–SS. Up to 12,500′.

Cedar Hill: Weekends SR–SS. Up to 12,500′.

Clear Springs Arpt: Suns and holidays, SR–SS. Up to 14,000′ AGL.

Commerce Arpt: Weekdays only SR–SS. Up to 10,000′.

Dickenson, T & C Drop Zone Arpt: 1 mi radius. Up to 12,500′

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AAF. Up to 17,500′ MSL.

Fort Hood: Wed, Sat, and Sun. 1200–1800. Up to 15,000′.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Lampassas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Lewisville: 4 mi W.

Littlefield Mun: Suns. SR–SS. Up to 12,500′.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

San Antonio, Northeast Arpt: Suns and holidays SR–SS. Up to 12,500′ AGL.

San Marcos Arpt: Sat, Sun, occasional weekdays SR–SS. Up to 12,500′ AGL.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

Temple, Draughon-Miller Arpt: 6 mi SSE, S edge of city limits. 1900–SS weekends; 2200Z to SS weekdays. Up to 12,000′.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

Green River: 6 mi NNE of arpt. Daily SR–SS. Up to 10,000′ MSL.

Hill AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden Arpt: Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Chesapeake, Navy Fentress Fld: Daily 1000–1400Z. Up to 10,000′.

Forest, New London Arpt: Daily. Up to 11,000′.

Hanover Arpk: 12 nmi N of Richmond VOR on radial 352. Daily and occasionally ngts. Up to 13,000′ MSL.

Hopewell Arpt: Weekends. Up to 9000′.

Manassas: On the Herndon 195 radial 15 mi. Weekends, Wed evenings and holidays. Occasional ngt jumping. Up to 12,500′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Norfolk, Oceana NAS: Weekend. 0800–1700. Up to 15,000′.

Norfolk, South Norfolk Arpt: 7 days a week and occasionally ngts.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

Quinton, New Kent Arpt: 1 mi W, 5 mi radius. Weekends SR–SS. Up to 20,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Muni Arpt: Cont. Up to 12,000′.

Target Fld: 2 mi NNE of Manassas. Sat, Sun, and holidays SR–SS. Up to 13,000′ MSL.

Virginia Beach, NAS Oceana: Sat, Sun 1600–2400Z. Up to 10,000′.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

Bellingham Arpt: 6NE. 7days per wk. Up to 12,500′ AGL.

Colville Arpt: Wk-ends, holidays, occasionally wk-day evenings. Up to 14,000′ MSL.

Coupeville: 1 mi S. Weekends and holidays, occasional weekday afternoons. Up to 12,500′ AGL.

Issaquah-Seattle Skyport: Daily SR–SS. Up to 24,000′ AGL.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 8 mi N SR to 1 hr after SS. Up to 12,000′ AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

Walla Walla City-Co. Arpt: 6 mi S. Mon-Fri. 1630–SS. Sat, Sun and holidays 0800–SS. Up to 16,500′.

WEST VIRGINIA

Morgantown Arpt: 2 mi SW on radial 230°. Tues., Thurs., Sat and Sun. SR–SS.

WISCONSIN

Antigo Arpt: 2 mi S. Weekends SR–SS. Up to 12,500′ AGL.

LaCrosse, Maple Grove Arpt: Tues and Thur 1700–SS. Sat and Sun 1000–SS. Up to 7200′.

● **Lake Geneva:** 4 mi SE. Sat 1800Z–2400Z; Sun 1500Z–2400Z. Up to 8000′ AGL.

Lake Geneva Wal-Co. Farms Arpt: Tues, Wed, Fri 1800–2030. Up to 7500′. Sat, Sun 1200–2030. Up to 12,500′.

Superior Arpt: 5 mi S weekends SR–SS. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500′ MSL.

Osceola Mun: Wk-ends, 1000–SS. Up to 14,500′ AGL.

Oskkosh: 8 mi NW. Weekdays 1700–1900. Weekends 1000–2100. Up to 13,000′ AGL.

Waupun Arpt: Sats, Suns, holidays. Up to 12,000′.

WYOMING

Laramie: 2 mi S. Weekends SR–SS. Up to 20,000′ MSL.

Sheridan Muni Arpt: Weekends and holidays SR–SS. Up to 16,500′ MSL.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston	V2 GDM (L-25)
Kennedy	V91 RVH (L25)
LaGuardia	V91 V487 Stamford (L25)
Newark	V489 Budd Lake (L25)

ALBUQUERQUE

Denver	Aden V19W SAF V83 PUB V19E IOC (L-4, 6)
Kansas City	Aden V19W SAF V19 LVS V190 DHT V234 V280 Farley (L-6)
Los Angeles	GNT V12 EED V208 TNP V264S ONT. (L-4, 3)
Phoenix	GNT V190N SJN V190 Lake. (L-4)

ATLANTA METRO AREA

Birmingham	Chattahoochee V18 ANB (L20, 14)
Charlotte	Conyers V66 FML (L-20)
Cincinnati	Crabapple V97 Dry Ridge (L-20, 22)
Chicago	Crabapple V51 CGT (L-14, 20, 21, 23)
Dallas	Chattahoochee V18 MLU V94 V477E Forney (L20, 14, 18, 17, 13)
Dulles	Conyers V66 FML V454 LVL V155 GVE V39E Brandy (L20-22)
Houston	Chattahoochee V18 MEI V194 MCB V222 LCH V222N Monument (L20, 14, 18)
Kennedy	Conyers V66 FML V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
Jacksonville	Griffin V243 AYS V243W Callahan (L20, 18)
La Guardia	Conyers V66 FML V454 LVL V157 RIC V20 V213 RBV (L-20, 22, 24)
Memphis	Chattahoochee V18 BHM V176N HLI (L20, 14)
Miami	Brooks V97 ABY V159 V159W CTY V7 FMY V35 MIA (L20, 18, 19)
Newark	Conyers V66 FML V454 V157 V20 V213 V29 V433 Rocky Hill (L-20, 22, 24)
Orlando	Griffin V243 AYS V157 OCF V159W Clermont (L20, 18, 19)
Pittsburgh	Crabapple V97 TYS V115 PKB V119 HLG (L-20, 22, 24)
Tampa	Brooks V97 ABY V159 V159W CTY V7 Homo V35E Hazel (L20, 18, 19)
Washington	Conyers V66 FML V454 LVL V157 Ironsides (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta	BHM V18S Palmetto (L14, 20)
New Orleans	TCL V18 MEI V455 HBG V455W Madison (L14, 18 17)
Pittsburgh	GAD V115E CHA V115 PKB V119 HLG (L-14, 22, 24)

BOSTON METRO AREA

Albany	V14 Melrose (L-25)
Buffalo	V14 Bellona V31 ROC V142 Grant (L-25)
Cleveland	V14 ALB V72 Hadley V232 Mentor (L-25, L-24)
Kennedy	PUT V475E V16 RVH (L25)

BOSTON METRO AREA—Continued

LaGuardia	Millbury V3 V445 Stamford (L25)
Newark	Millbury V3 V292 Budd Lake (L25, 24)
Philadelphia	Millbury V3 Warrington (L25, 24)
Rochester	V14 Bellona V31 Fishers (L-25)
Washington	PUT V308 North Barch (L25, 24)
Windsor Locks	PUT PUT 295 rad Meadow, (L25)

BUFFALO

Boston	GEE V14 GDM (L-12, L-25)
Cleveland	Langford V464 DKK V14 Mentor (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 QG (L-12, 23)
Kennedy	V252 BGM V270 V34 CMK BDR RVH (L12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 Liberty (L-12, 25)
Midway	V84 LAN V218 Surf (L-12, 23)
Newark	V252 GEE V147 TOH V226 Budd Lake (L12-25)
O'Hare	V84 OBK (L12, 23)
Philadelphia	V33 PSB V238 ESR (L-12, 24)
Pittsburgh	V115 EWC (L-12, 24)
Washington	V33 HAR V265 Dayton GTN/Rbn DCA (L12-24)

CHARLESTON, W. VA.

Cincinnati	V128 California (L22)
Cleveland	V115 PKB V59 V427 V40 Sharon (L22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 HLG (L-22, 24)
Washington	V4S EKN V4 HRN (L22, 24)

CHARLOTTE

Atlanta	CLT V194 OCR (L20)
Cleveland	Mooresville V37 PSK V59 V427 V40 Sharon (L20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 BGT (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 RBV (L-20, 22, 24)
Miami	FML V37 ALD V157 LAL V7 FMY V35 MIA (L20, 18, 19)
Washington	New London V454 LVL V157 Ironsides (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	EON V171 SCJ V243 Kennesaw (L23, 21, 14, 20)
Denver	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6)
Detroit City	Musky V100 ELX V218 Troy (L23, 12)
Dulles	EON V144 Blue Ridge (L23, 24)
Kennedy	V6 SEG V170 V276 RBV (L23, 24)
Indianapolis	EON V128 (L-23)
La Guardia	V6 V433 Liberty (L-23, 24)
Los Angeles	Malta V172 OBH V219 HCT V8 (L23, 11, 8, 6, 5, 3)
Memphis	Big Run V173 CAP V9 Kerrville (L-23, 21, 14)
Miami	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 FMY V35 MIA (L23, 21, 14, 20, 18, 19)
Minneapolis	Malta V218 RST V82 FGT (L23, 11, 10)
Newark	V6 SEG V30 Rocky Hill (L-23, 24)
Philadelphia	V6 PSB V238 ESR (L23, 24)
Pittsburgh	V6 Chagrin Falls V103 ACO V297 EWC (L23, 24)
San Francisco	Malta V172 PLL V158 DBQ V100 MBW V6 RNO V6N SAC V6 (L23, 11, 8, 7, 2)
St. Louis	Big Run V191 V14 Staunton (L23, 21)
Tampa	EON V171 SCJ V243 ATL V97 ABY V159 GEF V159W CTY V7 Homo V35E Hazel (L23, 21, 14, 20, 18, 19)
Tulsa	API V10 BRL V63 SGF V14 (L23, 11, 21, 6)
Washington	EON V144 ESL V4 HRN (L23, 24)

From Midway only

Cleveland	Crib V6 SKY V232 Vermillion (L23)
Des Moines	API V8 CVA V233 CID V172 TNU (L23-11)
Kansas City	API V10 Kearney (L-23, 11, 21)
Metro Wayne Co.	Crib V10 Milan (L23)
Omaha	API V8 CVA V233 CID V172 EOL (L23, 11)
Willow Run	Crib V10 Milan (L23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 Vermillion (L-23)
Des Moines	V172 TNU (L-23, 11)
Kansas City	V84 BDF V10 Kearney (L-23, 11, 21)
Metro Wayne Co.	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Omaha	V172 EOL (L23, 11)
Willow Run	V172 Musky V100 LeRoy V30 LFD V10 Milan (L23)
Windsor	V100 V218 Troy (L23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 OCR (L-21, 22, 20)
Charleston W. Va.	V128S YRK V128 (L22)
Chicago	V97 CGT (L-21, 23)
Detroit (City)	V275 SVM (L21, 23)
Indianapolis	V97 (L-21, 23)
LaGuardia	V128S YRK V44 MGW V106 SEG V6 V433 Liberty (L22-24)
Louisville	V47 ABB V51 (L-21)
Metro Wayne Co.	V275 Milan(L21, 23)
Miami	V47 ABB V51 Crabapple V97 ABY V159 V159W CTY V7 FMY V35 MIA (L21, 22, 20, 18, 19)
Newark	V128S YRK V44 MGW V106 V30 Rocky Hill (L22-24)
Pittsburgh	V128S YRK V44 PKB V119 HLG (L22-24)
St. Louis	V47 ABB V44 Mounds (L21)
Willow Run	V275 Milan (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 GDM (L-23, 24, 12, 25)
Buffalo	V14N Crystal Beach (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 Niles (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	Crib V103 CLE 345 rad Comber (L23)
Kennedy	ACO V30 SEG V170 V276 RBV (L24)
Indianapolis	CLE V14 (L23)
La Guardia	ACO V30 CIP V6 Amboy V433 Liberty (L-24)
Metro Wayne Co.	V42E V103 Lasalle (L23)
Miami	V443 V133 V35 V185 Dover V157 LAL V7 FMY V35 MIA (L23, 22, 20, 18, 19)
Newark	ACO V30 Rocky Hill (L-24)
Philadelphia	ACO V30 PSB V238 ESR (L-24)
Pittsburgh	ACO V297 EWC (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	ACO V103 IRL V37 Millsboro V92 FRR V4 HRN (L-24)
Willow Run	V42E V103 Lasalle (L23)

COLUMBUS

Charleston, W. Va.	APE V38 V133 (L-23, 24, 22)
Indianapolis	Grindell V210 (L-23)
LaGuardia	APE V12 V106 V6 V433 Liberty (L23, 24)
Pittsburgh	APE V12 HLG (L-23, 24)
St. Louis	V12N V210 Staunton (L23, 21)
Toledo	V38 FDY V47 (L-23)
Washington	APE V144 ESL V4 HRN (L-23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo	Lakeside V114 Claude (L-13)
Atlanta	DAL V278 V18S Palmetto (L13, 14, 20)
Dulles	DAL V278 V16 BNA V140 MOL V251 V174 Blue Ridge (L13-14-21-22)
El Paso	Joshua V94 INK V16 RIO (L-13, 4)
●Houston	Trinity Fork V477 LOA V477W Silver (L-13, 17)
Los Angeles	Joshua V94 INK V16 SFL V94 GBN V461 BXK V16 ONT (L-13, 4, 3)
Memphis	DAL V278 TXK V16 Walls (L13-L14)
Midway	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
New Orleans	DAL V114 French (L-13, 17)
O'Hare	DAL V15 Gunter PNX MLC V63 UIN V116 JOT (L-13, 6, 21, 11, 23)
San Antonio	Red Oak V15E ACT V17 AUS V17W Bergheim (L-13, 15)
Tulsa	DAL V15 Gunter PNX MLC V131 OKM Haskell; or DAL V15 OKM Haskell (L-13, 6)
Washington	DAL V278 V16 BNA V140 MOL V16N GVE V16 Ironsides (L-13, 14, 21, 22)

DAYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 CGT (L-23)
Cleveland	V275 V47W FDY V8 MFD V246 Sharon (L23)
Detroit/City	V275 SVM (L23)
LaGuardia	V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V275 Milan (L23)
Willow Run	V275 Milan (L23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N Langston (L23-21-6)
Washington	V12 APE V144 ESL V4 HRN (L-23, 24)

DENVER METRO AREA

Chicago	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT (L-8, 11, 23)
Kennedy	DEN V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX RBV (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy	V221 ERI V170 V276 RBV (L12, 24)

From City and Windsor only

Newark	V221 ERI V170 SEG V30 Rocky Hill (L12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V238 ESR (L-12, 24)
Ft. Wayne	SVM V170 Leslie V45 JXN V221 (L-23)
Midway	SVM V170 V84 V7E V116 (L-23)
Milwaukee	SVM V170 PMM V30S Pike (L-12, 23)
O'Hare	SVM V170 V84 OBK (L-23)

From Metro or Willow Run only

Buffalo	V221 V90 V14N Crystal Beach (L-12)
Cleveland	Stripe V297 Vermillion (L23)
Ft. Wayne	Dexter V221 (L-23)
Midway	Pinckney V170 V84 V7E V116 (L-12, 23)
Milwaukee	Dexter V116 JXN V45 Leslie V170 PMM V30S Pike (L-12, 23)
O'Hare	Pinckney V170 V84 OBK (L-12, 23)
Pittsburgh	Stripe V133 Bay V6 V42 ACO V297 EWC (L23, 24)
Rochester	V221 V90 V14 V2 (L-12)
Washington	Stripe V133 ZZV V144 ESL V4 HRN (L23, 24)

EL PASO

Dallas	HUP V66 MAF V16S BGS V16 ABI V66 Denton V114 Lakeside (L-4, 13)
Los Angeles	EWM V94 GBN V461 BXK V16 ONT (L-4, 3)
San Antonio	HUP V198 Boerne (L-4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 PRR (L-19)

HOUSTON METRO AREA

Atlanta	LaPorte V20S LCH V20 LFT V70 MVC V20 (L17, 18, 14, 20)
Dallas	Gulf Coast V477E Forney (L-17, 13)
New Orleans	LaPorte V20S LCH V20 Turtle (L-17)
San Antonio	Andrau V222 Hunter (L-17, 15)

INDIANAPOLIS

Detroit	V11 SVM (L-23)
Evansville	V11W SCJ V11E (L-21)
Kennedy	V50 DAY V12 V106 V276 RBV (L23, 24)
LaGuardia	V50 DAY V12 V106 V6 V433 Liberty (L23, 24)
Metro Wayne Co.	V1 V10 Milan (L23)
Midway	V97W V97 CGT (L-23)
Newark	V50 DAY V12 V106 V30 Rocky Hill (L23, 24)
Pittsburgh	V50 DAY V12 HLG (L-23, 24)
St. Louis	V14 Staunton (L21)
Willow Run	V11 V10 Milan (L23)

JACKSONVILLE

Atlanta	Kings V5E DBN V5 McDonough (L18, 20)
Dulles	Clinch V3E SAV V3 RDU V155 GVE V39E Brandy (L18-20-22)
Kennedy	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 BGT (L-18, 20, 22, 24)
LaGuardia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 RBV (L-18, 20, 22, 24)
Miami	Blue Jacket V267 New River (L-19)
Newark	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 Rocky Hill (L-18, 20, 22, 24)
Norfolk	Clinch V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN V266 Burdette (L18-20-22)
Orlando	Blue Jacket V267 Woodruff (L-18, 19)
Philadelphia	Clinch V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 OOD (L-18, 20, 22, 24)
Washington	Clinch V3E SAV V3 RDU V155 LVL V157 Ironsides (L-18, 20, 22)

PREFERRED ROUTES

KANSAS CITY METRO AREA

Midway	Excelsior V116 JOT (L-21, 23)
O'Hare	Excelsior V116 JOT (L-21, 23)
St. Louis	BSP V12 MTS (L-21)
Wichita	Bonner Springs V12 De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia	V4 CRW V106 SEG V6 V433 Liberty (L-21, 22, 24)
Newark	V4 CRW V106 V30 Rocky Hill (L-21, 22, 24)

MEMPHIS

Atlanta	HLI V176 BHM V18S Palmetto (L14, 20)
Dallas	Prichard V16S PBF V16 DAL (L13–L14)
Dulles	Moscow V16S GHM V16 V140 MOL V251 V174 Blue Ricge (L14, 21, 22)
Midway	Cuba V9W V9 JOT (L-14, 21, 22)
New Orleans	Savage V9W GRW V9 Madison (L14–L17)
O'Hare	Cuba V9W V9 JOT (L-14, 21, 23)
Washington	Moscow V16S GHM V16 V140 MOL V16N GVE V16 Ironsides (L14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta	MIA V157 AMG V5 McDonough (L19, 18, 20)
Charlotte	MIA V157 ALD V37 FML (L19, 18, 20)
Chicago	MIA V157 AMG V51 DBN V267 TYS V97 CGT (L19, 20, 22, 21, 23)
Cleveland	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 Sharon (L19, 20, 22, 21, 23)
Detroit (city)	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 QG (L19, 20, 22, 21, 23)
Dulles	Guppy drct Halibut Control 1150 ILM V1 ISO V157 LVL V155 GVE V39E **Brandy** (L19–L20–L22)
Habana	Gary V51 EYW drct SF/Rbn or PRR/Rbn B19 EYW drct SF. Rbn (L19)
Kennedy	Guppy drct Halibut Control 1150 ILM V1 BGT (L-19, 20, 22, 24)
Jacksonville	Martin V295 VRB V3 DAB V3E Shiloh (L19)
La Guardia	Guppy drct Halibut Control 1150 ILM V1W V213 RBV (L-19, 20. 22, 24)
Metro Wayne Co	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)
Newark	Guppy drct Halibut Control 1150 ILM V1 V29 V433 Rocky Hill (L-19, 20, 22, 24)
Pittsburgh	MIA V157 ALD V37 AGC (L19, 20, 22, 24)
Tampa	MIA V97 Gibson (L19)
Washington	Guppy drct Halibut Control 1150 ILM V1 ISO V157 Ironsides (L-19–L20–L22)
Willow Run	MIA V157 ALD V37 PSK V59 CTW V427 BSV V40 CLE V42 V103 Lasalle (L19, 20, 22, 21, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago	V9 API; or Taylor V7E V116 Surf (L-12, 23)
Detroit	V2S MKG V2 SVM (L-12)
Kennedy	V2S MKG V2 SVM V116 BFD V170 RAV V276 RBV (L12, 23, 24)

MINNEAPOLIS METRO AREA

Midway	Prescott V2 V97 V171 V6 API (L-10, 11, 23)
O'Hare	Prescott V2 V97 Lakewood (L-10, 11, 23)

MONTGOMERY

Washington	TPE V154 MCN V56 AGS V155 V157 Ironsides (18, 20, 22)

NASHVILLE

LaGuardia	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V213 RBV (L21, 22, 24)
Newark	Freedom V140N LOZ V140 MOL V16N GVE V16 ENO V29 V433 Rocky Hill (L21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta	PCU V70 MVC V20 Tyrone (L17, 18, 20)
Birmingham	PCU V455 MEI V154 V209 BWA drct BHM/LOM (L-17, L-18, L-14)
Dallas	Walker V-114N AEX V-114 GGG V-94 V-477E Forney (L-17, 13)
Dulles	PCU V70 MVC V20 SBV V39 GVE V39E Brandy (L-17, 18, 20, 22)
Houston	TBD V20S LFT V20 LCH V222N Monument (L-17)
Kennedy	PCU V70 MVC V20 V213 ENO V44 Barnegat (L-17, 18, 20, 22, 24)
Memphis	PCU V9E MCB V9 GRW V9E Independence (L-14)
Newark	PCU V70 MVC V20 V213 ENO V29 V433 Rocky Hill (L-17, 18, 20, 22, 24)
Washington	PCU V70 MVC V20 SBV V39 GVE V16 Ironsides (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany	Sound POU V487 Brainard (L-25)
Bradley	Sound V433 Waterbury (L25)

From Newark only

Albany	SAX POU V487 Brainard (L-25)
Atlanta	SBJ V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	SBJ V3 V93 (L24)
Boston	SAX POU V58 V167 Sterling (L25)
Buffalo	TVE V188 V147 V36 Dale (L-25)
Cincinnati	SBJ V3 V166 V4 V174 V128 California (L24–22)
Cleveland	TVE V232 Mentor (L-24, 23)
Detroit (City)	TVE V188 TOH V147 V116 QG (L24, 23)
Detroit Metro Area	TVE V188 V147 V116 QG (L24, 23)
Dulles Int'l	SBJ V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	TVE V232 ETG V226 V119 V210 (L24–23)
Jacksonville	SBJ V3 V29 SBY V1 V437 SAV V3 St. Marys (L24, 22, 20, 18)
Louisville	SBJ V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Metro Wayne Co	TVE V188 TOH V147 V116 QG (L24, 23)
Miami	SBJ V3 V29 SBY Y1 Control 1150 Porpoise PBI V3 Bradley (L24, 22, 20, 19)
Nashville	SBJ V3 EMI V39 V140 Lebanon (L24, 22, 14)
New Orleans	SBJ V3 EMI V39 V140 V16N V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18)
Norfolk Metro Area	SBJ V3 V29 SBY VI CCV (L24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia	SBJ V3 Warrington (L24)
Pittsburgh	TVE V232 ETG V226 EWC (L-24)
Providence	SAX POU V58 V130 Lafayette (L25)
Rochester	SAX V116 V29 BGM V423 V34 Fishers (L25)
Syracuse	SAX V483 (L-25)
Toledo	TVE V232 Mentor V126 (L-24, 23)
Washington	SBJ V3 ESR V140 Dayton GTN Rbn DCA (L24)
Willow Run	TVE V188 TOH V147 V116 QG (L24, 23)

From Kennedy only

Atlanta	Dutch V308 ENO V213 V20 SPA V20N OCR (L24, 22, 20)
Baltimore	Dutch V308 ENO V268 (L24)
Boston	HTO V139 HTM (L25)
Buffalo	HUO V126 V36 Dale (L-25)
Cleveland	HUO V126 V58 IPT V188 JFN V14 Mentor (L25, 24, 23)
Detroit	HUO V126 V116 QG (L25, 24, 23)
Dulles	HUO V39 V162 HAR V223 Sugar Loaf (L25, 24)
Europe	HTO V46 (L-25)
Jacksonville	Dutch V139 V1 V437 V3 St. Marys (L-24, 22, 20, 19)
Louisville	HUO V39 V251 V166 V4 V174 V44 FLM V502 (L25, 24, 22, 21)
Metro Wayne Co.	HUO V126 BFD V172 V188 V103 Lasalle (L25, 24, 23)
Miami	Dutch V139 V1 Control 1150 Porpoise PBI V3 Bradley (L24, 22, 20, 19)
Montreal	Sound POU V487 (L-25, 26)
New Orleans	Dutch V308 OTT V16 V115 V18 V455 V455W Madison (L24, 22, 20, 14, 18, 17)
Norfolk Metro Area	Dutch V139 CCV (L-24, 22)
O'Hare	HUO V126 V116 V170 V84 OBK (L25, 24, 23)
Philadelphia	Dutch V312 CYN V16 V239 OOD (L24)
Pittsburgh	HUO V126 AVP V58 V226 EWC (L-25, 24)
Providence	HTO V139 (L25)
Rochester	HUO V249 V34 Fishers (L-25)
Syracuse	HUO V483 (L25)
Toronto	HUO V126 AVP V36 (L-25, 12)
Washington	Dutch V308 North Beach (L24, 18)
Willow Run	HUO V126 AVP V116 QG (L25, 24, 23)

From LaGuardia only

Atlanta	Paterson V3 EMI V39 V140 MOL V143 V222 V35 V20N OCR (L24, 22, 20)
Baltimore	Paterson V3 V93 (L24)
Boston	Sound V467 MAD V475E V16 BOS (L25)
Buffalo	SAX V36 Dale (L-25, 12)
Cincinnati	Paterson V3 V166 V4 V174 V128 California (L24-22)
Cleveland	SAX TOH V188 JFN V14 Mentor (L-24, 23)
Columbus	SAX TOH V226 CIP V119 V214 Hanover (L24, 23
Detroit City	SAX TOH V147 V116 QG (L24, 23)
Dulles Intl	Paterson V3 EMI V166 V223 Sugar Loaf (L24)
Indianapolis	SAX TOH V226 V119 V210 (L24, 23)
Louisville	Paterson V3 V166 V4 V174 V44 FLM V502 (L24, 22, 21)
Montreal	Sound POU V487 (L-25)
Metro Wayne Co	SAX TOH V147 V116 QG (L24, 23)
Nashville	Paterson V3 EMI V39 V140 Lebanon (L24, 22, 14)
O'Hare	SAX TOH V147 V116 V170 V84 OBK (L24, 25)
Philadelphia	Paierson V3 Warrington (L24)
Pittsburgh	SAX TOH V226 EWC (L24)
Providence	Sound V467 V475E V130 Lafayette (L24, 25)
Rochester	SAX V116 AVP V29 V423 V34 Fishers (L25)
Toronto	SAX V36 (L-25, 12)
Washington	Paterson V3 ESR V140 Dayton GTN/Rbn DCA (L24)
Willow Run	SAX TOH V147 V116 QG (L24, 23)

NORFOLK METRO AREA

Charlotte	CVI V194 RDU V66 Midland (L22, 20)
Dulles	Farnham V286 Brandy (L22)
Kennedy	CCV V1 BGT (L-22, 24)
Jacksonville	CVI V1 CHS V437 SAV V3 St. Marys (L22, 20, 18)
LaGuardia	CCV V1 SBY V29 ENO V213 RBV (L-22, 24)
Newark	CCV V1 SBY V29 V433 Rocky Hill (L-22, 24)
Philadelphia	CCV V1 SBY V29 ENO V213 OOD (L-22, 24)
Richmond	HCM V156 (L-22)
Washington	Farnham V286 V157 Ironsides (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton	Prague V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita	Crescent V77 Mayfield (L-6)

ORLANDO

Atlanta	Leesburg V159 ABY V97 Brooks (L-19, 18, 20)
Jacksonville	Sanford V152 DAB V3E Shiloh (L-19)

PHILADELPHIA METRO AREA

Baltimore	EWT V166 V93 (L-24)
Boston	MIV 101 rad V139 HTM (L24, 25)
Buffalo	Boyer V170 SLT ELZ V119 Burns V36 Dale (L-25)
Cleveland	Boyer V162S HAR V12 AGC V8 BSV V40 Sharon (L-24, 23)
Detroit (City)	Boyer V162S V12 V37 V103 CLE 345 rad Comber (L-24, 23)
Dulles Intl	EWT 305 rad V3 EMI V166 V223 Sugar Loaf (L24)
Kennedy	Columbus V123 RBV (L-24)
Jacksonville	MIV 205 rad ATR V1 V437 V3 St. Marys (L24, 22 20, 19)
LaGuardia	Columbus V213 RBV (L-24)
Metro Wayne Co.	Boyer V162S V12 V37 V103 Lasalle (L24, 23)
Miami	MIV 205 rad ATR V1 Control 1150 Porpoise PBI V3 Bradley (L28, 27, 19)
Newark	V433 Rocky Hill (L-24)
Norfolk	MIV 205 rad ATR V1 CCV (L24, 22)
Pittsburgh	Boyer V162S V12 (L-24)
Rochester	Boyer V170 V31 Fishers (L-24, 25)
Washington	EWT V166 V140 Dayton GTN/Rbn DCA (L24)
Willow Run	Boyer V162S V12 V37 V103 Lasalle (L24, 23)

PHOENIX

Albuquerque	Lake V190 Suwanee (L-4)
El Paso	V105 CZG V94 SSO V198 Harrington Ranch (L-4)
Kansas City	V190 DHT V234 HUT V280 TOP V4N Farley (L-4, 6)

PREFERRED ROUTES

PITTSBURGH METRO AREA

Buffalo	V37 EWC V115 (L-24, 12)
Cleveland	V40 Sharon (L-23, 24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
Willow Run	V40 V42 V103 Lasalle (L24, 23)

From Greater Pittsburgh only

Atlanta	V103 V115 TYS V267 OCR (L24, 22, 20)
Baltimore	V103 V92 Keyser V44 MRB V166 (L-24) EMI
Boston	Freeport V119 V276 TON V35 ELM V72 ALB V2 GDM (L-24, 25)
Charleston W. Va	V103 V115 PKB V59 V106 (L24, 22)
Chicago	V40 BSV V8 FDY V422 CGT V7 Niles (L-24, 22)
Columbus	V103 Wolfdale V214 (L-24, 23)
Detroit Metro Area	V40 V42 V103 Lasalle (L24, 23)
Kennedy	V119 V276 RBV (L-24)
Indianapolis	V210; or Kilgore V210 (L-24, 23)
LaGuardia	V119 V276 Reedsville V106 SEG V6 V433 Liberty (L24)
Newark	V119 V276 Reedsville V106 SEG V30 Rocky Hill (L-24)
Philadelphia	CLN V210 HAR V238 ESR (L-24)
St. Louis	Kilgore V210 Staunton (L23, 21)
Washington	V103 V92 FRR V4 HRN (L-24)

From Allegheny Co. only

Chicago	AGC V8 FDY V422 CGT V7 Niles (L-24, 23)
Kennedy	V12 V106 Reedsville V276 RBV (L24)
LaGuardia	V12 V106 SEG V6 V433 Liberty (L24)
Newark	V12 V106 V30 Rocky Hill (L24)

PROVIDENCE

Kennedy	V167 V16 RVH (L25)
LaGuardia	V167 V3 V445 Stamford (L52)
Newark	V167 HFD V292 Budd Lake (L25)

RICHMOND

Philadelphia	V20 Tappahannock V213 OOD (L-22, 24)

ROCHESTER

Baltimore	V147 ELM V31 (L-25, 24)
Boston	Fishers V31 Bellona V14 GDM (L—25)
Detroit	V142 BUF V2 QO V90N Dolphin V90 Park (L-12, 23)
Kennedy	V147 GEE V252 BGM V270 V34 CMK BDR RVH (L25)
LaGuardia	V147 ABE V6 V433 Liberty (L-25)
Newark	V147 TOH V226 Budd Lake (L25)
Philadelphia	V147 ABE V149 V3 Warrington (L25-24)
Washington	V147 ELM V31 HAR V265 Dayton GTN Rbn DCA (L25-24)
Willow Run	V142 BUF V2 QO V90N Dolphin V90 V98 Lasalle (L12, 23)

SAN ANTONIO

Dallas	Mission V17 ACT V15 Desoto (L-15, 17, 13)
El Paso	Guadalupe V222 Rio (L-15, 4)
Houston	Clear Spring V198 ELA V180 Arcola (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

O'Hare	LIN V113 RNO V6 MBW V100 Lakewood (L2, 7, 8' 11, 23)

From San Francisco only

Burbank/Los Angeles.	Shrimp V27 SBP V137 Pozo V25 V12 FIM (L-2, 3)
Kennedy	LIN V113 RNO V6 MBW V100 OBK V84 LAN V2 SVM V116 ERI V170 V276 RBV (L2, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland	TOY V12 Wilbur V11 IND V14 FDY V8 MFD V246 Sharon (L-21. 23)
Columbus	TOY V12 (L-21, 23)
Dallas	V14EOS V15 ADM ADM 167 rad V114 Lakeside (L21, 6, 13)
Ft. Worth	V14 EOS V15 OKM V161 Justin (L-21, 6, 13)
Indianapolis	TOY V12 Wilbur V11 (L-21, 23)
Kansas City	V4 Missouri City (L-21)
Memphis	V9 Kerrville (L-21, 14)
Midway/O'Hare	V9 JOT (L-21, 11, 23)
Tulsa	V14 (L-21, 6)
Washington	TOY V52 EVV V4 HRN (L-21, 22)

SYRACUSE

Kennedy	V273 HNK V34 CMK BDR RVH (L25)
LaGuardia	V153 V29 V6 V433 Liberty (L25)
Newark	V273 Budd Lake (L25)
Philadelphia	V29 BGM V149 V3 Warrington (L25-24)

TAMPA METRO AREA

Atlanta	V97W Scallop V97 Brooks (L-19, 18, 20)
Miami	Hansen V35 Chester (L19)

TORONTO

Kennedy	V34 CMK BDR RVH (L12, 25)
LaGuardia	V36 V147 V6 V433 Liberty (L-12, 25)

TULSA

Chicago	V14 SGF V63 V116 JOT (L-6, 21, 11, 23)
Dallas	OKM V15 ADM ADM 167 rad V114 Lakeside (L16, 13)
Dayton	V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis	V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis	V140 FYV V72 V9 Lemay (L-6, 21)

UTICA

Newark	RKA HNK V273 Budd Lake (L25)

WASHINGTON/BALTIMORE METRO AREA

Boston	Swan Point V268 V139 HTM (L24-25)
Chicago	Flint Stone V8 FDY V422 CGT (L-24, 23)
Cleveland	Flint Stone V8 BSV V40 Sharon (L-24, 23)
Jacksonville	BRV V3 St. Marys (L-22, 20, 18)
Kennedy	Swan Point V123 RBV (L24)
LaGuardia	Swan Point V123 RBV (L24)
Newark	Swan Point V433 Rocky Hill (L24)
Philadelphia	Swan Point V123 OOD (L24)
Pittsburgh	Flint Stone V8 AGC (L-24)

From Washington only

Atlanta	CSN V140 MOL V143 LYH V222 AVL V35 Clemson V20N OCR (L-22, 20)
Charleston W. Va	CSN V308 V174 V4 Ivydale (L22)
Charlotte	BRV V3 RDU V66 Midland (L22, 20)
Dallas	CSN V140 BNA V16 DAL (L22, 21, 14, 13)
Greensboro	CSN V140 MOL V143 Leaksville (L-22)
Harrisburg	Ashburn V8N V223 (L-24)
Jacksonville	BRV V3 St. Marys (L-22, 20, 19)
Memphis	CSN V140 BNA V16 Fisherville (L22, 21, 14)
Miami	BRV V3 V155 V157 V213 V1W ILM Control 1150 Porpoise PBI V3 Bradley (L22, 21)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Nashville	CSN V140 Lebanon (L22, 21)
New Orleans	CSN V140 V16N V16 TYS V115 BHM V18 MEI V455 V455W Madison (L22, 20, 14, 18)
Norfolk Metro area	BRV V286 Tappahannock V213 HPW HPW 134 rad Surry (L22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 St. Marys (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	Braddock V166 EWT V157 RBV or Braddock V166 V239 V238 ACY V1 BGT (L24)
Jacksonville	CSN V39 GVE V155 FAK V3 St. Marys (L24)
LaGuardia	Braddock V166 EWT V157 RBV (L24)
Miami	CSN V39 GVE V155 V157 V213 V1W ILM Control 1150 Porpoise PBI V3 Bradley (L22, 20, 19)
Newark	Braddock V166 EWT V433 Rocky Hill (L24)
Philadelphia	Braddock HRN 354 rad V251 V238 ESR (L24)

WICHITA

Okalahoma City	Mayfield V77 PNC V77E Langaton (L6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

In Narrative Form Only

(Explanatory information is provided in Part 1)

(L 20, 23)=Enroute Chart Numbers

COLORADO

Walker Field, Grand Junction (L 5)

● LOMA TWO DEPARTURE

Via Grand Junction ILS localizer course to Loma Intersection. Then via (transition) or (assigned route). **Grand Junction Transition**—Via Grand Junction VORTAC 341 radial to Grand Junction. Cross Grand Junction VORTAC at or above 10,000 feet. **Myton Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Myton 120 radial to Myton. Cross Mack Intersection at or above 9200 feet. **Vernal Transition**—Via Grand Junction ILS Localizer course to intercept and proceed via the Grand Junction 323 and Vernal VOR 143 radials to Vernal. Intercept Grand Junction 323 radial at or above 9500 feet. **Plateau Transition**—Via Grand Junction 341 radial to Plateau Intersection. Cross Loma Intersection at or above 8300 feet.

PEACHTREE ONE DEPARTURE

Via direct Grand Junction VORTAC. Then via (assigned route). Cross Grand Junction VORTAC at or above 10,000 feet.

NOTE.—This SID requires a minimum climb rate of 420 feet per mile.

CONNECTICUT

Bradley Field, Windsor Locks (L 25)

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeeepsie VOR 088 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 356 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD FIVE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 119 radial to Woonsocket intersection; thence via V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MASSACHUSETTS

Laurence G. Hanscom Field, Bedford (L 25)

MANCHESTER FOUR DEPARTURE

Via Gardner VORTAC 112 radial to intercept the Manchester VORTAC 210 radial thence via Manchester VORTAC 210 radial to Manchester VORTAC. Cross Gardner VORTAC 084 radial (Manchester VORTAC 10 mile DME fix) (as assigned by ATC. Thence via (transition) or (assigned route)

Albany Transition—Via Manchester VORTAC 291 radial to intercept the Albany VORTAC 097 radial to Albany VORTAC

Kennebunk Transition—Via Manchester VORTAC 060 radial and Kennebunk VORTAC 242 radial to Kennebunk VORTAC

PUTNAM SIX DEPARTURE

Via Gardner VORTAC 112 radial to Putnam VORTAC 026 radial (Gardner VORTAC 17 mile DME fix) to Putnam VORTAC. Intercept Putnam VORTAC 026 radial (as assigned by ATC) Cross Gardner VORTAC 146 radial (Putnam VORTAC 23 mile DME fix (as assigned by ATC). Thence via (transition) or (assigend route)

Baltic Transition—Via Putnam VORTAC 227 radial to Baltic Intersection

Huguenot Transition—Via Putnam VORTAC 276 radial to intercept the Huguenot VORTAC 080 radial thence via J77 to Huguenot VORTAC

NEW JERSEY

Teterboro Airport (L24)

SOMERVILLE ONE DEPARTURE

Takeoff Runways 1–6. After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right heading

250 to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence via the Solberg VORTAC 061 radial to Solberg VORTAC. Cross Morristown Intersection and the Tannersville VORTAC 124 radial at 2000 feet. Cross Solberg VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Pottstown Transition—Via direct Pottstown VOR. **New Castle Transition**—Via Solberg VORTAC 237 radial to intercept the West Chester VORTAC 056 radial. West Chester VORTAC 056 radial to West Chester VORTAC direct New Castle VORTAC. **Norfolk Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79 to Norfolk VORTAC. **Richmond Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J14 to Richmond VORTAC. **Flat Rock Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J55 to Flat Rock VORTAC. **Gordonsville Transition**—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 211 radial to J37 to Gordonsville VORTAC.

CHESTER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial to Paterson Intersection. Thence via the Solberg VORTAC 061 radial to Morristown Intersection. Thence

takeoff runways 19–24—After takeoff turn right to a 250 heading to intercept the LaGuardia VOR 290 radial to Morristown Intersection. Thence

via the Solberg VORTAC 061 radial to intercept the Tannersville VORTAC 124 radial. Thence via the Tannersville VORTAC 124 radial to Tannersville VORTAC. Cross Morristown Intersection at 2000 feet. Maintain 2000 feet until intercepting the Tannersville VORTAC 124 radial. Cross Tannersville VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route).

Allentown Transition—Via direct Allentown VORTAC. **Philipsburg Transition**—Via Tannersville VORTAC 285 radial to intercept the Philipsburg VORTAC 082 radial Philipsburg VORTAC 082 radial to Philipsburg VORTAC. **Erie Transition**—Via Tannersville VORTAC 320 radial to intercept the Huguenot VORTAC 291 radial J70 to Erie VORTAC. **Slate Run Transition**—Via Tannersville VORTAC J584 to Slate Run VOR. **Westminster Transition**—Via Tannersville VORTAC 285 radial to Westminster VORTAC 045 radial to Westminster VORTAC.

BUTLER ONE DEPARTURE

Takeoff runways 1–6—After takeoff climb on a 030 heading to 1000 feet. Turn left at or prior to the LaGuardia VOR 330 radial to intercept the Sparta VORTAC 123 radial. Thence **takeoff runways 19–24**—After takeoff turn right to a 350 heading to intercept the Sparta VORTAC 123 radial. Thence via Sparta VORTAC 123 radial to the Sparta VORTAC. Cross the Solberg VORTAC 061 radial at 2000 feet. Cross the Solberg VORTAC 050 radial at 3000 feet. Cross Sparta VORTAC at and maintain 5000 feet. Thence via (transition) or (assigned route). **Rockdale Transition**—Via V249/V449 to Rockdale VOR. **Poughkeepsie Transiton**—Via direct Poughkeepsie VORTAC. **Albany Transition**—Via direct Poughkeepsie VORTAC direct Albany VORTAC. **Boston Transition**—Via direct Carmel VORTAC. Carmel VORTAC 105 radial to Kennedy VORTAC 060 radial to intercept J575. J575 to Boston VORTAC. **Buffalo Transition**—Via Sparta VORTAC 311 radial to Wilkes-Barre VORTAC. Thence via Wilkes-Barre VORTAC 325 radial to J95. J95 to Buffalo VORTAC.

NEW YORK

Hancock Airport, Syracuse (L 25)

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route).

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). **Florence Transition**—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. **Syracuse Transition**—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. **Pulaski Transition**—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection.

Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt. (L 24)

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence (L 25)

WARWICK TWO DEPARTURE

Takeoff Runways 5L/R, 34—Turn right as soon as practicable after leaving 500 feet, heading 160 degrees. Thence **takeoff runway 16**—Climb on runway heading. Thence **takeoff runways 23L/R**—Turn left as soon as practicable after leaving 500 feet, reading 090 degrees. Thence via vector to Providence VORTAC 132 radial, to Quonset VOR 038 radial to Quonset VOR; thence via Quonset VOR 218 radial to V46. Cross Quonset VOR at or below 5000 feet. Cross Norwich VORTAC 124 radial at 7000 feet. Cross Hampton VORTAC 082 radial (as assigned by ATC). Then via (assigned route).

STERLING THREE DEPARTURE

Takeoff Runways 34, 5L/R—Turn left as soon as practicable after leaving 500 feet, heading 250 degrees. Thence **takeoff runways 23L/R, 16**—Turn right as soon as practicable after leaving 500 feet, heading 340 degrees. Thence via vector to Providence VORTAC 284 radial, Providence VORTAC 284 radial to Sterling Intersection. Cross Sterling Intersection (as assigned by ATC). Then via (assigned route).

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport, Tucson

California

Fresno Air Terminal
Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

NOTE: New data which have been added to this issue are shown below the rule line under the appropriate chart.

ABERDEEN

42nd Edition, August 18, 1966

No hazardous changes.

•ALBANY

57th Edition, July 21, 1966

Add UNICOM Barnes Muni arpt 42°09'39''N, 72°42''-48''W. Add ctl twr freq 122.7R Oneida County. Add UNICOM Sicho arpt 42°41'25''N, 73°34'50''W. Delete Brantingham Inn SPB 43°41'23''N, 75°16'43''W. Add obstn 1755' MSL 42°52'20''N, 75°09'47''W. Change efctv date for R–4902 to read Eff thru Oct 31, 1967.

ALBUQUERQUE

57th Edition, August 18, 1966

Add obstn 4269' MSL 34°51'00''N, 102°33'42''W. Delete UNICOM Grants Milan arpt 35°10'N, 107°54'W.

•AROOSTOCK

43rd Edition, April 28, 1966

Relocate Andover SPB 46°48'N, 67°47'W to 46°46'N, 67°42'W. Add obstn 1765' MSL 46°33'05''N, 67°48'37'' W. Add Loring (AF) VOR freq 115.0 ident LIZ class TVOR mag var 22°W 46°50'10''N, 67°51'24''W.

AUSTIN

62nd Edition, Nov. 10, 1966

No hazardous changes.

•BEAUMONT

56th Edition, September 15, 1966

Add obstn 417' MSL 30°01'39''N, 92°17'17''W. Add obstn 495' MSL 30°23'03''N, 91°03'27''W. Add obstn 430' MSL 30°14'20''N, 92°14'03''W. Add obstn 411' MSL 29°58'44''N, 92°09'15''W. Add Polk AAF VOR freq 108.4 ident POE class LVOR mag var 7°E 31°06'-41''N, 93°13'03''W. Add obstn elev 544 MSL 31°55'55''N, 92°38'30''W. Delete S P Lumber arpt 31°12'N, 94°47'W. Delete Williams arpt 31°00'N, 90°42'W.

•BELLINGHAM

54th Edition, December 8, 1966

No hazardous changes.

•BIRMINGHAM

62nd Edition, Oct. 13, 1966

Add obstn 709 MSL 32°56'38''N, 87°50'06''W. Add obstn 1019 MSL 33°30'34''N, 87°25'41''W. Delete DF Columbus AFB ctl twr 33°39'N, 88°27'W. Correct type bottom of REX VOR facility box to read DME. Add obstn 1074' MSL 32°44'54''N, 85°15'57''W. Add obstn 559' MSL 32°13'27''N, 87°38'56''W. Add obstn 1079' MSL 32°57'15''N, 86°42'02''W.

BOISE

42nd Edition, May 26, 1966

Delete FM Eagle code — — — — — 43°43'30''N, 116°26'-00'W. Add R–3202 bounded on the S by 42°40'00'', W by 115°38'14''N by 42°48'45'' and E by 115°32'41''. Delete Allen arpt 43°44'N, 118°05'W. Add UNICOM Jerome County arpt 42°44'N, 114°27'W.

•BOSTON

58th Edition, September 15, 1966

Change obstn elev 375' MSL to 549' MSL 41°58'05''N. 70°42'03''W. Delete OTIS (AF) VOR 41°39'44''N. 70°30'53''W. Delete Clifton (Army) arpt 41°53'N. 69°58'W. Add obstn 460' MSL 42°31'52''N, 70°59'39''W. Change ewctv date for R–4902 to read Eff thru Oct 31. 1967.

BURLINGTON

47th Edition, Nov. 10, 1966

No hazardous changes.

BUTTE

46th Edition, July 21, 1966

Add UNICOM Boulder arpt 46°13'N, 112°06'W.

● CASPER

52nd Edition, Oct. 13, 1966

Delete ORR RANCH arpt 42°23'N, 102°26'W.

•CHARLOTTE SECTIONAL CHART

59th Edition, Oct. 13, 1966

Add obstn 440' MSL 35°16'15"N, 78°21'16"W. Add obstn 1392' MSL 34°07'07"N, 80°56'12"W. Add DF Florence arpt 34°11'N, 79°43'W. Delete Shaw (AF) VOR 33°58'N, 80°27'W. Correct Anderson VORTAC freq 108.0 to 108.6. Add UNICOM Woodward arpt 34°17'N, 80°34'W. Delete Gordon arpt 35°08'N, 78°42'W. Add UNICOM Grannis arpt 34°59'N, 78°53'W.

•CHATTANOOGA

58th Edition, August 18, 1966

Add UNICOM Albertville arpt 34°14'N, 86°15'W. Add McKellar VOR freq 112.0 ident MKL class T/BVOR mag var 4°E 35°36'13"N, 88°54'38"W. Delete Milan arpt 35°56'N, 88°44'W. Change obstn elev 2287' MSL to 2549' MSL 35°08'05"N, 85°19'26"W. Delete Boen arpt 35°57'N, 88°45'W. Delete Martin non-Federal RBn 35°30'N, 88°58'W. Delete Hardee non-federal RBN 35°35'N, 88°56'W. Add obstn elev 750' MSL 35°08'39"N, 89°48'20"W. Add obstn elev 2214' MSL 35°13'10"N, 85°53'11"W. Add aband arpt symbol & type 35°54'N, 89°24'W. Add obstn 1319' MSL 34°23'55"N, 86°30'37" W. Add UNICOM Scottsboro arpt 34°42'N, 86°00'W. Add UNICOM Pontotoc Co. arpt 34°17'N, 89°02'W.

•CHEYENNE

55th Edition, December 8, 1966

No hazardous changes.

•CHICAGO

63rd Edition, December 8, 1966

No hazardous changes.

•CINCINNATI

62nd Edition, August 18, 1966

Add Connersville non-federal RBn freq 275 ident CEV class MHW 39°41'51"N, 85°08'04"W. Delete Morrow arpt 39°20'N, 84°08'W. Add Huntingburg non-federal RBn freq 239 ident HNB class MHW 38°14'51"N, 86°56'47"W. Add obstn elev 1849' MSL 39°53'59"N, 86°12'02"W. Delete Elsenmenger arpt 39°54'N, 88°10'W.

•CLEVELAND

63rd Edition, Nov. 10, 1966

Add obstn 1625' MSL 40°51'04"N, 81°16'37"W. Add obstn 1575' MSL 40°51'03"N, 80°54'06"W. In northern border delete Windsor LFR leg & freq 353 from box. Add Pelee Island RBn freq 281 ident PT class MHW 41°46'44"N, 82°40'16"W. Delete Ohio Agri R&D arpt 40°46'45"N, 81°55'45"W. Restore Martin arpt 40°51'15" N, 81°19'30"W elev 1080' Two turf runways, longest 2625 Attended days & fuel available.

•CORPUS CHRISTI

57th Edition, July 21, 1966

Add obstn 560' MSL 26°15'26"N, 98°13'53"W. Change ctl twr freq 341.0 to 318.8 NALF Orange Grove 27°54'N, 98°03'W. Add DF Miller Intnl ctl twr 26°11'N, 98°14'W.

•DALLAS

63rd Edition, July 21, 1966

Delete Starnes arpt 33°53'N, 101°59'W. Increase obstn elev 3315' to 3469' MSL 33°31'15"N, 101°46'27"W. Change ctl twr freq 118.9 to 120.5 Greater Southwest Intnl 32°50'N, 97°03'W. Add obstn 906' MSL 33°15'45"N, 97°06'06"W. Delete Edwards Ranch No 2 arpt 32°05'N, 101°34'W. Add UNICOM Majors arpt 33°04'N, 96°04'W. Delete ctl twr freq 122.7R Webb AFB.

DEL RIO

42nd Edition, Nov. 10, 1966

No hazardous changes.

•DENVER

57th Edition, December 8, 1966

No hazardous Changes.

•DES MOINES

56th Edition, Nov. 10, 1966

Delete Thompson arpt 40°08'N, 90°55'W.

•DETROIT

61st Edition, July 21, 1966

Add UNICOM Moorhead arpt 42°11'N, 79°53'W. Delete Central RBn 43°16'57"N, 81°26'28"W. Centralia ctl twr decmsnd 43°18'N, 81°31'W. Add obstn elev 1026' MSL 42°32'42"N, 82°54'04"W. Change obstn elev 1946' MSL to 2170' MSL 42°03'53"N, 80°00'18"W. Add T-line & type CAUTION 42°45'58"N, 82°28'18"W & 42°46'01.5" N, 82°27'45"W. Change Windsor LFR to RBn freq 353 ident QG class BHV–P 42°17'58"N, 82°54'01"W. Add UNICOM Fredonia arpt 42°26'45"N, 79°23'45"W. Delete McEnnan arpt 42°12'N, 83°37'W. Add UNICOM Air Port Hope arpt 43°55'N, 82°43'W.

DOUGLAS

44th Edition, Oct. 13, 1966

Add obstn elev 3921' MSL 31°54'05"N, 111°04'43"W.

DUBUQUE

52nd Edition, September 15, 1966

Add obstn 1760' MSL 42°04'08"N, 95°19'51"W. Add obstn 1705' MSL 42°21'45"N, 95°29'15"W. Add obstn 1799' MSL 42°02'05"N, 95°37'05"W. Change obstn elev 1665' to 1855' MSL 43°23'20"N, 94°51'00"W.

DULUTH

40th Edition, July 21, 1966

In northern border delete Graham LFR legs box & type. Delete Robbel arpt 45°56'N, 90°28'W. Change ident DHL to DL Duluth RBn. Relocate Grand Rapids (Minn) VOR from 47°12'54"N, 93°30'40"W to 47°09'47"N, 93°29'21"W.

•ELKO

47th Edition, December 8, 1966

No hazardous changes.

EL PASO

56th Edition, August 18, 1966

Delete UNICOM Hurd Memorial arpt 31°34'N, 102° 54'W.

•FARGO

45th Edition, August 18, 1966

Delete Chandler arpt 47°31'N, 96°49'W. Add obstr 2675' MSL 46°18'51''N, 101°17'52''W. Add obstr 2340' MSL 47°27'46''N, 100°15'00''W. Add obstr 1700' MSL 47°19'29''N, 98°12'29''W. Relocate Grand Forks VOR from 47°57'02''N, 97°11'01''W to 47°57'18''N, 97°11'06''W Change freq. 111.2 to 109.4.

GLACIER PARK

39th Edition, Oct. 13, 1966

No hazardous changes.

•GRAND CANYON

43rd Edition, December 8, 1966

No hazardous changes.

GRAND JUNCTION

45th Edition, Nov. 10, 1966

No hazardous changes.

•GREEN BAY

54th Edition, December 8, 1966

No hazardous changes.

•HAWAIIAN ISLANDS

19th Edition, December 8, 1966

No hazardous changes.

HUNTINGTON

56th Edition, August 18, 1966

Delete UNICOM Potomac Airpark 39°41'N, 78°10'W. Delete Boggs arpt 39°52'N, 83°14'W.

•JACKSONVILLE

55th Edition, Nov. 10, 1966

Add Stewart RBn freq 256 ident LIY class MHW 31°47'42''N, 81°41'22''W. Add Tifton non-federal RBn freq 284 ident TMA class MHW 31°25'53''N, 83°29'49''W. Delete Transition area 2700' MSL W of Liberty AAF bounded by a 20 mi arc centered on Liberty AAF on the E on the NW by V157 on the SW by V267 this area now has a 1200' floor.

•KANSAS CITY

58th Edition, August 18, 1966

Delete Rush arpt 39°46'N, 95°15'W. Add UNICOM Civic Memorial arpt 38°53'N, 90°03'W. Add obstn 1090' MSL 39°03'14''N, 95°34'08''W. Delete Farley RBn 39°18'48''N, 94°49'36''W. Add UNICOM Booneville arpt 38°59'N, 92°45'W. Add obstn 1156' MSL 39°10'01''N, 91°51'44''W. Delete Hood arpt 39°59'N, 90°24''W.

KANSAS CITY LOCAL

36th Edition, August 18, 1966

Correct letn Berry Arpt to 38°52'N, 94°10'W.

KLAMATH FALLS

55th Edition, September 15, 1966

No hazardous changes.

KOOTENAI

42nd Edition, February 3, 1966

Delete Gebbers arpt 48°06'N, 119°46'W. Add Castlegar FM code ——— 49°19'N, 117°38'W. Increase terrain elev at lat 48°25'N & long 114°07'W to 4000'–6000' MSL.

•LA GRANDE

45th Edition, July 21, 1966

Delete Pilot Rock arpt 45°01'N, 119°01'W.

•LAKE HURON

41st Edition, May 26, 1966

Add obstn 1110' MSL 44°54'46''N, 79°23'16''W. Delete Peterborough SPB 44°23'N, 78°23'W. In northern border delete Sudbury LFR leg & freq 362 from box.

LAKE SUPERIOR

44th Edition, August 18, 1966

Delete RBn Grand Marais 46°38'16''N, 85°58'56''W. Add obstn 1549' MSL 46°29'52''N, 87°24'59''W.

LAKE OF THE WOODS

39th Edition, August 18, 1966

Delete Cache Bay SPB 48°12'N, 91°01'W.

•LEWISTON

46th Edition, Nov. 10, 1966

Delete Eastport SPB 44°54'30''N, 67°01'00''W.

•LINCOLN

55th Edition, Oct. 13, 1966

Correct BS station 40°51'27''N, 97°35'36''W from KHAS 1230 to KAWL 1370. Add UNICOM Searl arpt 41°07'N, 101°46'W.

•LITTLE ROCK

50th Edition, July 21, 1966

Delete Fort Smith RBn 35°30'00'N, 94°24'30''W. Change ident LIT to LI & relocate from 34°41'03''N, 92°11'13''W to 34°40'08''N, 92°18'19''W. Little Rock RBn. Add obstn 630' MSL 32°27'45''N, 90°35'55''W. Add T-line & type "CAUTION" 34°36'51''N, 92°09'08''W 34°36'45''N, 92°09'44''W.

•LOS ANGELES

62nd Edition, August 18, 1966

Correct elev NAS Los Alamitos arpt from 25 to 35. Change obstn elev 454' MSL to 585' MSL 33°51'35''N.

118°20'56"W. Add obstn 3551' MSL 34°55'06"N, 117° 22'33"W. Change ctl twr freq 120.3 to 120.2 Van Nuys. Change ctl twr freq 118.1 to 120.9 Torrance. Change ctl twr freq 120.4 to 119.2 Palmdale AF Plant 42. Add UNICOM Yucca Valley arpt 34°08'N, 116°25'W. Delete ctl twr freq 119.5 at Long Beach. Delete Roy arpt 34°34'N, 115°45'W. Change freqs 124.4 127.1 139.9 335.6 122.5R to 123.7 125.1 269.4 291.6 122.5R George AFB Military Climb Corridor R-2526.

MIAMI

54th Edition, September 15, 1966

Add obstn 277' MSL 27°26'43"N, 80°24'47" W. Add UNICOM Bartow arpt 27°57'N, 81°47'W. Add venice non-federal RBn freq 209 ident XVN class MHW 27°04'46"N, 82°26'41"W. Delete UNICOM Okeechobee Co arpt 27°16'N, 80°51'W.

MILES CITY

46th Edition, Oct. 13, 1966

Add obstn 2714' MSL 47°54'42"N, 103°27'02"W.

•MILWAUKEE

61st Edition, December 8, 1966

No hazardous changes.

MINOT

44th Edition, September 15, 1966

No hazardous changes.

MOBILE

59th Edition, July 21, 1966

Delete DF Cairns AAF ctl twr 31°16'N, 85°43'W. Add obstn 641' MSL 31°56'33"N, 87°04'11"W. Delete Brantley arpt 31°36'02"N, 86°13'50"W. Add obstn 525' MSL 31°48'45"N, 89°03'21"W. Add obstn 405' MSL 31°16'-50"N, 89°51'12"W. Add obstn elev 693' MSL 31°55' 30"N, 89°02'12"W. Add obstn elev 629' MSL 31°48' 51"N, 89°03'04"W. Delete Lee arpt. 31°27'45"N, 87° 21'00"W. Delete Crestview RBn 30°48'N, 86°31'W. Delete DF Turner AFB ctl twr 31°36'N, 84°05'W.

•MT. SHASTA

56th Edition, Nov. 10, 1966

Add UNICOM Montague-Yreka arpt 41°44'N, 122°33'W.

MT. WHITNEY

57th Edition, June 23, 1966

Add obstn 2355' MSL 36°12'52"N, 115°09'18"W. Add UNICOM Gallaher arpt 36°16'N, 119°18'W.

•NASHVILLE

57th Edition, July 21, 1966

Change ctl twr freq 229.6 to 241.0 Godman AAF. Add UNICOM Gallatin Mun 36°23'N, 86°25'W. Delete Gee arpt 36°31'N, 89°43'W. Add obstn 1280' MSL 37°01' 11'N, 85°53'38"W. Add obstn 1120' MSL 36°32'07"N, 85°27'12"W. Delete Kollehner arpt 37°25'N, 89°17'W. Add obstn 1421' MSL 37°38'38"N, 84°39'02"W. Add obstn 1086' MSL 36°09'00"N, 86°23'13"W. Delete Charleston arpt 36°55'N, 89°23'W.

NEW ORLEANS

60th Edition, September 15, 1966

Add obstn 417' MSL 30°01'39"N, 92°17'17"W. Add obstn 411' MSL 29°58'44"N, 92°09'15"W. Add obstn elev 430' MSL 30°14'20"N, 92°14'03"W. Add obstn, elev 495' MSL 30°23'03"N, 91°03'27"W.

•NEW YORK

65th Edition, Oct. 13, 1966

Add obstn elev 1549' MSL at 41°25'23"N, 72°57'06"W. Add UNICOM Hershey Airpark 40°17'30"N, 76°39'30"W. Add obstn 1366' MSL 40°51'54"N, 74°40'47"W. Betts AAF ctl twr decmsnd 41°11'45"N, 75°25'35"W.

NORFOLK

59th Edition, September 15, 1966

Add UNICOM Emporia arpt 36°41'N, 77°29'W. Add SW extsn to New Bern ctl zone 4 mi wide to a point 8 mi SW of EWN-VOR.

•OKLAHOMA CITY

60th Edition, Nov. 10, 1966

Add obstn 3959' MSL 35°52'48"N, 101°58'26"W. Delete Bristow arpt 35°50'N, 96°25'W. Correct Burns Flat VOR ident & code CMS — ● — ● — — ● ● ● to BFV — ● ● ● ● ● — ● ● ● ● — 35°14'13"N, 99°12'21"W. Add obstn 1650' MSL 34°01'11"N, 98°55'37"W. Add obstn 1530' MSL 35°35'19"N, 97°31'08"W.

•ORLANDO

56th Edition, Nov. 10, 1966

Add obstn 322' MSL 29°28'55"N, 81°16'20"W.

•PHOENIX

55th Edition, July 21, 1966

Delete Rainy Mesa arpt 33°33'N, 108°38'W. Add obstn 3614' MSL 33°04'07"N, 111°03'16"W. Change ctl twr freq 257.8 to 256.9 Phoenix Sky Harbor. Add obstn 5071' MSL 32°45'48"N, 110°56'13"W. Change Phoenix VOR freq & ident 115.6 PHX to 113.3 EPX TACAN portion tmprly shutdown. Phoenix VOR change postponed until 1–5–67.

•POCATELLO

52nd Edition, Oct. 13, 1966

Delete Soelberg arpt 43°36'N, 113°24'W.

•PORTLAND

55th Edition, July 21, 1966

Add UNICOM Hood River County arpt 45°40'N, 121°-32'W. Add ctl zone 5 mi radius Hillsboro arpt 45°32'15" N, 122°56'30"W with extsn 8 mi S of arpt. See NOTAMs/AIM for CZ efctv hrs. Add standard South alternate V448S awy from Portland to Yakima. Delete Carson arpt 45°43'N, 121°49'W. Add UNICOM Oregon City arpt 45°16'N, 122°35'W. Twr comsnd Portland Hillsboro arpt freqs. 119.3, 240.8 & 122.6 R. Delete UNICOM Pacific City arpt 45°12'N, 123°58'W. Add UNICOM Prineville arpt 44°17'N, 120°54'W.

•PRESCOTT

46th Edition, September 15, 1966

Add UNICOM Oak Creek Canyon arpt 34°51'N, 111°47'W. Delete UNICOM Cottonwood Clemenceau arpt 34°44'N, 112°02'W. Delete UNICOM Grants Milan arpt 35°11'N, 107°51'W. Add obstn 8836' MSL 35°28'01"N, 108°14'25"W. Change Winslow RBn class H to HW.

•RAPID CITY

45th Edition, December 8, 1966

No hazardous changes.

•RENO

46th Edition, June 23,1966

Ctl twr decmsnd Stead AFB fld clsd. Add area R-4813 from 39°51'N, 118°38'W to 40°01'N, 118°15'W to 39°-52'36"N, 118°01'W thence via 15 mi arc centered at 39°52'36"N, 118°20'27"W to 39°45'50"N, 118°38'W. Add area R-4812 5 mi either side of aline 39°10'N, 118°37'30"W and 39°13"N, 118°12'42"W bounded on the E by R-4804 on the W by R-4810. Change freq 254 to 351 Reno RBn. Change freq 329 to 254 Sparks RBn.

•ROSWELL

55th Edition, June 23, 1966

Add UNICOM Midland Airpark 32°02'N, 102°06'W. Add obstn 864' MSL 33°41'33'N, 95°23'45"W. Add obstn 4205' MSL 32°54'51"N—103°19'42"W. Add obstn 3387' MSL 32°24'20"N, 104°11'21"W.

•SACRAMENTO

56th Edition, June 23, 1966

Ctl twr decomsnd Stead AFB fld clsd. Add UNICOM Garberville arpt 40°05'N, 123°49'W. Add Travis RBn freq 400 ident SU class MHW 38°20'10"N, 121°49'18"W. Delete abandoned arpt 38°25'N, 122°45'W. Change freq 254 to 351 Reno RBn. Change ctl twr freq 257.8 to 239.0 Stockton. Delete Inglenook Ranch arpt 38°28'N, 122°27W Delete NAS Alameda SPB 37°46'N, 122°18'W. Add obstn 359' MSL 38°55'44"N, 123°43'37"W. Change freq 329 to 254 Sparks RBn.

SALINA

55th Edition, September 15, 1966

Delete Wilkens arpt 38°34'N, 98°22'W. Add UNICOM Salina arpt 38°47'N, 97°39'W.

•SALT LAKE CITY

54th Edition, December 8, 1966

No hazardous changes.

•SAN ANTONIO

58th Edition, June 23, 1966

Add obstn 636' MSL 29°59'33"N, 95°28'23"W. Add UNICOM Hondo muni arpt 29°21'N, 99°10'W. Delete Arrowhead Ranch arpt 28°15'36"N, 98°33'54"W. Delete Dial Ranch arpt 28°39'40"N, 97°35'57"W. Delete Mangum arpt 28°58'30"N, 95°54'55"W. Add obstn 390' MSL 29°16'46"N, 95°44'26"W. Add obstn 455' MSL 28°56'-44"N, 95°20'12"W. Delete Riverview arpt 29°16'N, 98°36'00"W. Delete San Antonio RBn 29°34'N, 98°28'W. Add UNICOM Spaceland Airpark 29°30'N, 95°09'W. Delete Bergmann arpt 29°50'38"N, 98°46'57"W. Delete Flying W Ranch arpt 28°29'29"N, 99°25'00"W. Delete Roundtree Ranch arpt 28°17'55"N, 97°49'46"W. Delete Haverlah arpt 28°58'36"N, 98°29'31"W. Add UNICOM Lowman arpt 29°51'N, 97°57'W. Add League City nonfederal RBn freq 362 ident SPX class MHW 29°28'00"N, 94°59'08"W. Add San Antonio RBn freq 254 ident AN class HW 29°36'26.5"N, 98°34'09.8"W.

•SAN DIEGO

60th Edition, August 18, 1966

Change obstn elev 454' MSL to 585' MSL 33°51'35"N, 118°20'56"W. Add obstn elev 139' MSL 33°14'37"N, 115°30'36"W. Add obstn elev 295' MSL 33°28'41"N, 115°51'43"W. Change ctl twr freq 142.74 to 126.2 NAAS Ream. Change ctl twr freq 118.1 to 120.9 Torrance. Delete ctl twr freq 119.5 Long Beach. Delete UNICOM MCAS/Yuma Intnl 32°39'N, 114°36'W.

•SAN FRANCISCO

59th Edition, June 23, 1966

Delete Blackwells arpt 35°37'N, 119°53'W. Add obstn 530' MSL 36°48'18"N, 121°46'50"W. Change Stockton ctl twr freq 257.8 to 239.0. Delete NAS Alameda SPB 37°46'N, 122°18'W.

SAVANNAH

60th Edition, September 15, 1966

Delete Shaw (AF) VOR 33°58'N, 80°27'W.

•SEATTLE

60th Edition, December 8, 1966

No hazardous changes.

SHREVEPORT

51st Edition, June 23, 1966

Add obstn 856' MSL 33°09'35"N, 94°56'12"W. Change ctl twr freq 119.7 to 118.9 at Gregg County. Delete Arneson arpt 32°26'N, 91°19'W. Add ctl zone 5 mi radius Greenville Muni arpt 33°29'05"N, 90°59'06"W with extsn 8.5 mi N of VOR efctv 0700 to 2000 hrs daily. Delete Mulinax arpt 35°56'N, 95°16'W. Add obstn 462' MSL 33°39'34"N, 91°21'48"W. Add obstn 864' MSL 33°41'33"N, 95°23'45"W. Delete Paynes arpt 33°54'N, 90°05'W. Delete McPherson arpt 32°27'N. 91°25'W. Delete ctl twr freq 278 Hawkins 32°20'N. 90°13'W.

SIOUX CITY

44th Edition, Nov. 10, 1966

No hazardous changes.

• SPOKANE

54th Edition, December 8, 1966

No hazardous changes.

TRINIDAD

44th Edition, September 15, 1966

Add obstn 3995' MSL 36°19'56"N, 102°04'51"W.

•TULSA

58th Edition, Oct. 13, 1966

On some printings of Tulsa Sectional, 58th Edition dated Oct. 13, 1966, a 1200' floor was inadvertently shown within the Walnut Ridge Control Zone. Please disregard. Add obstn 687' MSL 37°08'29"N, 90°42'11"W.

TWIN CITIES

53rd Edition, Nov. 10, 1966

No hazardous changes.

•WASHINGTON

64th Edition, Oct. 13, 1966

Correct arpt info to read Airlie (Pvt) 38°45'N, 77°47'W. Non-Federal Tower comsnd Hagerstown arpt freqs 118.5 257.8 Add Marine Quantico RBn freq 251 ident NYG class MH 38°38'14"N, 77°18'04"W. Change Hagerstown ctl twr freq 257.8 to 287.0 Change Millville LFR to RBn freq same ident MV to MIV class SBRAZ to SBH 39°25'N, 75°08'W. Delete GCA Phila Intnl ctl twr 39°53'N, 75°14'W.

•WICHITA

56th Edition, June 23, 1966

Delete Vance RBn 36°16'N, 97°55'W. Add UNICOM Sunray arpt 36°02'N, 101°50'W. Add UNICOM Ulysess arpt 37°36'N, 101°22'W. Add UNICOM Piper arpt 37°45'N, 97°13'W. Add Perryton non-federal RBn freq 266 ident PYX class MHW 36°24'46"N, 100°44'17"W. Delete Fincham arpt 37°49'N, 98°°46'W. Relocate Wichita RBn from 37°38'53"N, 97°16'19"W to 37°34'42"N, 97°27'20"W. Change ident ICT to IC class SABH to H-SAB. Add obstn 3400' MSL 37°34'09"N, 101°21'29"W. Add obstn 1623' MSL 36°32'12"N, 98°06'06"W. Add UNICOM Wellington arpt 37°19'N, 97°23'W. Add obstn 2787' MSL 37°12'51"N, 100°19'37'W. Add obstn 3410' MSL 37°11'30"N, 101°20'00"W. Add obstn 2912' MSL 36°53'47"N, 100°23'54"W. Add obstn 2548' MSL 36°29'48"N, 99°24'02"W. Add obstn 1591' MSL 36°25'22"N, 97°53'52"W.

•WILLISTON

40th Edition, July 21, 1966

Delete Glascow AFB RBn 48°21'N, 106°22'W.

•WINSTON-SALEM

58th Edition, Oct. 13, 1966

Add obstn 848' MSL 37°02'23"N, 78°16'45"W. Add obstn 1800' MSL 37°08'57"N, 83°45'09"W.

YELLOWSTONE PARK

44th Edition, September 15, 1966

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

GADSDEN VORTAC: DME unusable beyond 20 nmi 140–195°.

MOBILE, BROOKLEY AFB VORTAC: VOR unusable beyond 30 mi below 2,000′ MSL.

ARIZONA

BUCKEYE VORTAC: VORTAC unusable beyond 40 NM below 6000′ MSL 190–290°: below 7000′ MSL 320–345° and 005–035°; below 8000′ MSL 035–060° acct reduced coverage.

COCHISE VORTAC: VORTAC unusable beyond 40 nmi below 12,500′ MSL; 175–240°, 090–145° below 10,500′ MSL 040–090°, below 14,000′ MSL 360–040°.

FLAGSTAFF VOR: VOR unusable at 40 nmi below 18,000′ MSL 325°–340°; below 22,000′ MSL 340°–360°; below 18,000′ MSL 360°–025°; below 11,500′ 025°–305°; below 12,500′ MSL 305°–325°.

GRAND CANYON VOR: VOR unusable beyond 40 nmi below 10,000′ MSL 177°–210°; below 11,500′ MSL 210°–336°; below 13,000′ MSL 336°–346°; below 11,500′ 346°–120°; below 11,500′ MSL 153°–177°.

PEACH SPRINGS VORTAC: VORTAC unusable below 10,000′ MSL beyond 40 nmi from 195–230°.

PHOENIX VORTAC: VORTAC unusable beyond 20 nmi below 10,000′ MSL 152–170° and 200–210° and beyond 6 nmi below 7000′ MSL 078–125°.

PRESCOTT VORTAC: VORTAC unusable beyond 40 nmi below 11,000′ MSL 145–155° and 175–200°: below 17,000′ MSL 200–225°; below 12,000′ MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 145–190°; below 14,000′ 190–255°; below 10,500′ MSL 350–145°.

TUCSON VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL from 320–045°; below 16,500′ MSL 045–065°; below 15,000′ MSL 065–080°.

YUMA VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL 280–300°.

ARKANSAS

HOT SPRINGS VOR: VOR unusable 346–311° beyond 20 nmi below 3,500′ MSL; 312–345° beyond 15 nmi below 5,500′ MSL and beyond 30 nmi below 7,500′ MSL. MSL.

CALIFORNIA

AVENAL VORTAC: DME unusable beyond 40 nmi below 3000′ MSL 320–065° below 4000′ MSL, 065–095° below 4500′ MSL, 095–125° below 8500′ MSL, 125–170° below 7500′ MSL, 170–198° below 7000′ MSL, 195–230° below 8000′ MSL, 230–305°.

BAKERSFIELD VORTAC: VOR portion 121° rad V165 to Arvin Int unusable below 4000′.

BIG SUR VORTAC: DME unusable beyond 40 nmi below 8000′ MSL 085–120° below 7000′ MSL 120–130° below 6000′ MSL 290–320° and below 9000′ MSL 320–055°.

BLYTHE VORTAC: VORTAC unusable beyond 40 nmi below 8000′ MSL 324–018° below 9000′ MSL 189–217°, below 10,000′ MSL 175–189°, below 15,000′ MSL 277–324°.

CRESCENT CITY VORTAC: DME restricted 040–180° below 12,000′ at 40 nmi and 180–220° below 4000′ at 40 nmi.

FILLMORE VORTAC: VORTAC unusable beyond 40 nmi 13,000′ and below 280–290° and 14,000′ and below 290–350°

FORTUNA VORTAC: DME unusable below 9500′ MSL 050–070° and below 5000′ MSL 150–200° beyond 40 nmi.

FRESNO VORTAC: DME unusable below 4000′ MSL 200–250°.

GOFFS VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 265–290° and 15,000′ MSL 290–310°.

GORMAN VORTAC: VORTAC unusable beyond 40 nmi below 15,000′ MSL 265–310° below 10,500′ MSL 350–040°; below 5500′ MSL 125–155°; below 10,500′ MSL 155–170° below 14,500′ MSL 170–219°; below 31,000′ MSL 219–250°; below 25,000′ MSL 250–265°.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES VORTAC: VORTAC unusable beyond 40 nmi below 6000′ MSL from 135–180°, below 7000′ MSL from 268–290°. V–201 011° rad beyond 20 nmi below 9000′ MSL. DME unusable beyond 40 nmi below 3500′ MSL from 180–210°.

● MARYSVILLE VOR: VOR unusable below 3000′ MSL beyond 17 NM 275–290°.

NAPA VORTAC: DME unusable beyond 40 nmi below 7500′ from 280–045°.

NEEDLES VORTAC: VORTAC unusable below 11,500′ MSL beyond 40 nmi from 170 to 220°.

OAKLAND VORTAC: DME unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005–060°.

ONTARIO VORTAC: VORTAC unusable beyond 40 nmi 10,000′ MSL 360–020° and below 13,500′ 130–230° and below 13,000′ MSL 300–320° and below 16,500′ MSL 320–360°.

PALMDALE VORTAC: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°. DME unusable below 14,000′ MSL beyond 40 nmi from 110–170° below 13,000′ MSL beyond 40 nmi from 170–220° below 11,000′ MSL beyond 40 nmi from 220–235°.

PALM SPRINGS VOR: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER VORTAC: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150°.

POINT REYES VOR: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA VORTAC: VORTAC unusable beyond 40 NM below 10,000′ MSL 045–070°, below 8000′ MSL 070–140°, below 14,500′ MSL 270–310°, below 18,000′ MSL 310–330°; unusable beyond 30 NM below 18,000′ MSL 330–045° acct reduced coverage.

PORTERVILLE VOR: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180°.

RED BLUFF VORTAC: VOR unusable below 3500′ MSL 280–300°.

RIVERSIDE VOR: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°.

RIVERSIDE, MARCH AFB VOR: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°.

SALINAS VORTAC: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO VORTAC: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi. DME unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi unusable beyond 40 nmi below 5500′ MSL 300–320°.

SAN FRANCISCO RBN: H facility (SIA) unusable beyond 15 mi from 130°–160° clockwise.

SAN JOSE VOR: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°

SAN LUIS OBISPO VORTAC: VOR unusable below 7000′ MSL beyond 7 nmi from 300–090°.

SANTA ANA, EL TORO MCAS VOR: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA VOR: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SANTA ROSA VOR: VOR unusable beyond 40 nmi below 8000′ MSL 340–030° and beyond 40 NM below 5000′ MSL 080–120°.

SAUSALITO VORTAC: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL VORTAC: VORTAC unusable beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS VORTAC: VORTAC unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 4 nmi.

VAN NUYS VOR: VOR unusable beyond 40 NM below 11,000′ MSL 295–050°, below 6000′ MSL 140–280°.

WOODSIDE VORTAC: VORTAC unusable below 5000′ MSL beyond 30 nmi 190–260° and beyond 20 nmi 260–305°, VOR portion of VORTAC unusable beyond 18 nmi below 4000′ 360–020°.

COLORADO

ALAMOSA VORTAC: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165°.

COLORADO SPRINGS VORTAC: VOR (PEF) unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL, 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi due reduced coverage VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030°.

CORTEZ VOR: VOR unusable beyond 40 nmi below 14,000′ MSL 190–230°.

CONNECTICUT

BRIDGEPORT VOR: VOR unusable following areas: 265–280° beyond 10 mi below 1,700′ MSL; 290–305° beyond 6 mi below 1,700′ MSL; and 315–340° beyond 20 mi below 2,200′ MSL.

GROTON RBN: H facility unusable beyond 15 mi.

NEW HAVEN VOR: VOR unusable beyond 20 mi below 2,700′ MSL.

DISTRICT OF COLUMBIA

WASHINGTON VOR: VOR unusable in the following areas: 010–030° beyond 20 mi below 8,000′ MSL; 030–070° beyond 20 mi below 4,000′ MSL; 070–180° beyond 15 mi below 3,500′ MSL; 210–260° beyond 30 mi below 3,500′ MSL; 260–300° beyond 20 mi below 4,500′ MSL; 300–315° beyond 20 mi below 7,000′ MSL; 340–010° beyond 20 mi below 5,000′ MSL. DME portion unusable below 2000′ MSL beyond 35 mi from 085–095°, beyond 30 mi from 095–115°, beyond 25 mi from 115–125°, beyond 15 mi from 125–135°, beyond 15 mi from 225–235°, beyond 30 mi from 235–245°, beyond 20 mi from 245–255°, beyond 25 mi from 255–295°, beyond 20 mi from 295–305°, beyond 25 mi from 305–315° acct of unreliable distance.

FLORIDA

CROSS CITY VOR: VOR unusable beyond 16 nmi below 2500′ MSL on the 149° rad.

ORLANDO VORTAC: VOR rad 050–060° unusable below 5000′ MSL beyond 15 NM.

ST. PETERSBURG VORTAC: VOR unusable 080–120° above 14,500 beyond 50 mi.

GEORGIA

FULTON VOR: VOR unusable all areas except 220–280°.

WAYCROSS VORTAC: VOR unusable beyond 30 mi below 3,000′ MSL.

IDAHO

BOISE VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050°.

BURLEY VORTAC: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150°.

LEWISTON VOR: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.

MULLAN PASS VORTAC: VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°.

POCATELLO VORTAC: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120°.

TWIN FALLS VOR: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150°.

ILLINOIS

CHICAGO O'HARE VORTAC: VOR unusable 060–072°, 160–190°, 290–305° and 340–360°. DME unusable 004–014°, 138–156°, 170–218°, 250–255°, 285–315°, and 340–350°.

CHICAGO HEIGHTS VORTAC: VOR unusable 330–350° beyond 20 mi below 8,000′ MSL.

JOLIET VORTAC: VOR unusable 040–070° beyond 35 mi below 3,000′ MSL.

●NORTHBROOK VORTAC: VOR unusable 300–305° from 0 to 40 NM.

PEOTONE VORTAC: VOR unusable 341–010° beyond 33 mi below 3000′ MSL.

INDIANA

BLOOMINGTON VOR: VOR unusable 025–045° beyond 30 mi below 4,000′ MSL and 045–065° beyond 20 mi

FORT WAYNE VORTAC: VOR unusable 044°–062°.

KNOX VOR: VOR unusable 045–135° beyond 37 mi.

MUNCIE VOR: VOR unusable beyond 30 NM 115-210° below 2500′ MSL.

IOWA

ESTHERVILLE VOR: VOR unusable 220–240° beyond 15 nmi.

WATERLOO VORTAC: DME unusable beyond 15 nmi 335–005°.

KANSAS

MANHATTAN VOR: VOR unusable beyond 10 NM 260–282° below 5500′ MSL.

LOUISIANA

POLK VOR: VOR unusable 360–120°, 190–300°.

SHREVEPORT DOWNTOWN VOR: VOR unusable 070–100° and 180–280°.

MAINE

MILLINOCKET VORTAC: VOR unusable 330–340° beyond 35 mi below 6,000′ MSL.

MARYLAND

FREDERICK VOR: VOR unusable below 2000′ beyond 25 nmi from 055–190°.

SNOW HILL VORTAC: VOR unusable following areas: 005–020° beyond 25 mi below 1,500′ MSL; 210–225° beyond 20 mi below 1,300′ MSL; and 315–005° beyond 12 mi below 1,500′ MSL.

PATUXENT RIVER VOR: VOR unusable below 1500′ MSL beyond 35 mi 245–300°.

WESTMINSTER VOR: VOR unusable on 284–292° rad beyond 28 mi above 14,500′.

MASSACHUSETTS

BEDFORD VOR: VOR unusable 270–225° beyond 10 mi excluding published approach and transition and 225–270° beyond 7 mi.

BOSTON VORTAC: VOR unusable 020–040° beyond 65 nmi above 14,500′ MSL; 000–026° beyond 10 nmi 14,500′ MSL; 026–045° beyond 22 nmi below 3500′ MSL; 026–045° beyond 26 nmi below 4500′ MSL; 026–045° beyond 28 nmi below 5500′ MSL; 026–045° beyond 32 nmi below 7500′ MSL; 045-360° beyond 26 nmi below 3000′ MSL.

WESTFIELD VOR: VOR unusable 270–320° beyond 35 mi below 4,000′ MSL.

MICHIGAN

ALPENA VORTAC: DME unusable 260° to 280° below 4000′ MSL beyond 30 nmi.

FLINT VORTAC: VOR unusable 300–320° beyond 6 mi below 10,000′ MSL.

IRON MOUNTAIN VOR: VOR unusable 037–095° beyond 15 nmi below 6000′ MSL. 096–103° beyond 30 nmi below 4000′ 104–330° beyond 25 nmi below 3000′; 331–036° beyond 25 nmi below 3500′.

MARQUETTE VOR: VOR unusable in following areas: 200–335° beyond 25 mi below 2,900′ MSL and 335-350° beyond 30 mi below 2,900′ MSL. DME unusable 2[illegible]-290° beyond 30 nmi below 4000′ MSL, from 290-350° beyond 30 nmi below 4500′ MSL, from 350–050° beyond 30 nmi below 4000′ MSL.

SAWYER VOR: VOR unusable 270–300° and beyond 17 nmi.

WHITEFISH VORTAC: VOR unusable 075–145° beyond 18 nmi.

MINNESOTA

DULUTH VORTAC: VOR unusable 198–208° between 6,000′ and 18,000′ MSL; beyond 30 mi above 18,000′.

FLYING CLOUD VOR: VOR unusable following areas: 242-255° below 5000′ MSL within 30 mi; 242-255° below 8000′ MSL beyond 30 mi.

MANAKATO VOR: VOR unusable from 095–110°.

●GRAND RAPIDS VOR: VOR unusable from 245-290° and beyond 15 NM from 115-135°.

PARK RAPIDS VOR: VOR unusable following areas 185–265° beyond 20 mi below 3,000′ MSL; 265-155° beyond 22 mi below 2800′ MSL.

WINONA VOR: VOR unusable following areas: 334-082° and 122–294° beyond 4 mi.

MISSOURI

JEFFERSON CITY VOR: VOR unusable beyond 20 NM 040–105° and 140–285°; unusable below 4000′ beyond 20 mi 285–040° and 105–140°; unusable below 4000′ 0–20 mi 040–105° and 140–285°.

MARYLAND HEIGHTS VORTAC: VOR unusable 150–210° beyond 35 mi below 3,500′ MSL. DME unusable 150–215° beyond 30 mi below 3,500′ MSL.

RIVERSIDE VOR: VOR unusable in following areas: 125–170°, 252–260° and 300–310° all distances and altitudes; all other azimuths beyond 15 mi below 2,400′ MSL.

MONTANA

BOZEMAN VOR: VOR unusable 010–090° beyond 15 mi below 11,000′ MSL.

BUTTE VORTAC: VORTAC unusable following areas: 005–120° beyond 20 nmi below 10,000′ MSL; and 120–325° beyond 20 nmi below 11,000 MSL.

DILLON VORTAC: VORTAC unusable in following areas: 250–030° beyond 25 mi below 10,500′ MSL, 030–250° beyond 25 mi below 12,000′ MSL.

DRUMMOND VOR: Possible momentary flag activity on V2 nine miles E of Drummond VOR—verify station passage by TO/FROM indication.

GLASGOW VOR: VOR unusable 235–245° beyond 10 mi below 6,800′ MSL.

HELENA VORTAC: VORTAC unusable in following areas: 360–065° beyond 20 mi below 10,000′ MSL; 065–090° beyond 25 mi below 11,000′ MSL; 110–120° beyond 20 mi below 16,000′ MSL; 120–240° beyond 20 mi below 10,000′ MSL; 240–320° beyond 25 mi below 10,000′ MSL.

KALISPELL VOR: VOR unusable 350–060° beyond 20 mi below 17,000′ MSL.

MALMSTROM VOR: VOR unusable 250–280° beyond 15 nmi below 7000′ MSL.

MISSOULA VORTAC: VORTAC unusable in following areas: 345–060° beyond 15 mi; 060–095° beyond 31 mi below 12,000′ MSL; 095–165° beyond 20 mi below 10,000′ MSL; 165–270° beyond 20 mi below 12,000′ MSL; 285–315° beyond 20 mi below 12,000′ MSL; 315–345° beyond 20 mi; VOR below 11,000′ MSL DME below 14,000′ MSL. Possible momentary VOR flag activity on V–2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL VORTAC: VORTAC unusable in following areas; 360–040° beyond 30 mi below 14,500′ MSL; 040–055° beyond 30 mi below 12,000′ MSL; 120–160° beyond 30 mi below 14,500′ MSL; 215–230° beyond 20 mi below 14,500′ MSL; 230–285° beyond 35 mi below 14,500′ MSL; 285–360° beyond 30 mi below 13,500′ MSL.

NEBRASKA

OMAHA RDO: All Omaha, Nebraska FSS transmitting frequencies except 116.3 mc unusable from 065–095° between 36–55 mi below 3,600′ MSL.

NEVADA

BATTLE MOUNTAIN VORTAC: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285°.

BEATTY VORTAC: VOR restricted below 8000′ beyond 27 nmi, 060-360°; below 10,000′ beyond 10 nmi, 360–060°.

BOULDER CITY VORTAC: VOR unusable beyond 20 nmi above 9000′ MSL 185–210°.

● COALDALE VORTAC: VOR unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015°. DME unusable beyond 15 nmi below 14,000′ MSL 065–075°; below 17,000′ MSL 150–235°; below 16,000′ MSL 320–330°.

CURRANT VOR: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 nmi 260–290°; nmi 290–310°.

ELY VOR: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240–320°; below 14,000′ MSL 170–220° and 320–340°; below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010–120°.

HAZEN VOR: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS VORTAC: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,500′ MSL from 220° to 255°, below 14,500′ MSL from 255° to 270°, below 16,000′ MSL from 270–290°.

MORMON MESA VORTAC: VORTAC unusable beyond 40 nmi below alts 12,000′ MSL from 055 to 100°; 14,000′ MSL from 100 to 110°; 17,000′ MSL from 110 to 135°; 16,000′ MSL from 285 to 340°.

RENO RBN: H facility unusable 030–140° beyond 10 nmi, 140–250° beyond 25 nmi, 250–030° beyond 20 nmi.

RENO VORTAC: VOR unusable 200–230° beyond 30 nmi below 13,000′. DME unusable below 14,500′ beyond 30 nmi btn 210–230°.

SOD HOUSE VOR: VOR unusable below 13,500′ MSL beyond 40 nmi from 020–075° and 220–235°.

TONOPAH VORTAC: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030°.

WELLS VOR: VOR unusable beyond 40 nmi 18,000′ MSL 005–030°; below 22,500, 185–210°: below 15,000, 335–350°; and below 12,000′, 350–005°.

NEW HAMPSHIRE

KEENE VOR: VOR unusable 070–085° beyond 20 mi below 6,000′.

LEBANON VOR : VOR unusable 110-115° beyond 35 mi below 6,900′ MSL.

NEW JERSEY

● ATLANTIC CITY VORTAC: VOR unusable beyond 35 mi below 1500′ MSL. VOR unusable beyond 5 nmi 270-310°. Changeover point V–238 5 nmi from Atlantic City, 14 nmi from Millville VOR.

ROBBINSVILLE VORTAC: VOR unusable 020–065° beyond 30 mi.

NEW MEXICO

CIMARRON VORTAC: VOR azimuth unusable 340–010° beyond 32 mi below 12,000′ MSL. VORTAC unusable 230–290° beyond 20 mi below 18,000′ MSL.

CORONA VOR: VOR unusable 120–140° beyond 33 mi below 11,000′ MSL.

GALLUP VOR: VOR unusable 040–050° below 10,500′ MSL beyond 10 nmi.

GRANTS VORTAC: DME unusable beyond 20 mi below 11,000′ MSL in the following areas: 175–210°, 315–360° and 011–035°; unusable 001–010°. VOR unusable 310–360° beyond 30 nmi below 11,000′ MSL; 001–025° beyond 20 nmi below 13,300′ MSL: 150–175° beyond 30 nmi below 10,500′ MSL; 176–210° beyond 20 nmi below 10,500′ MSL; 240–265° beyond 35 nmi below 10,700′ MSL; unusable 001–010°.

SANTA FE VORTAC: VORTAC unusable 015–030° beyond 30 mi below 14,600′ MSL.

NEW YORK

ALBANY VORTAC: VOR unusable 115-135° beyond 10 nmi below 14,500', beyond 50 nmi below 18,000', beyond 75 nmi below 45,000'.

BINGHAMPTON RBN: Erratic ADF action 4-13 mi SSE of facility at 3,500' MSL.

CANARSIE VOR: VOR unusable 060-095° beyond 15 mi below 4,000' MSL.

DEER PARK VORTAC: VOR unusable following areas: 070-180° beyond 35 mi below 1,700' MSL; 180-240° beyond 30 mi below 1,700' MSL; 240-350° beyond 25 mi below 2,200' MSL; and 350-040° beyond 30 mi below 2,200' MSL.

DUNKIRK VOR: VOR unusable 120-180° beyond 22 mi below 4,000' MSL.

GENESEO VORTAC: VOR and DME unusable below 3,500' MSL in following areas: 115-140° beyond 35 mi; 140-160° beyond 30 mi; 160-180° beyond 35 mi; 190-210° beyond 30 mi; and 210-215° beyond 35 mi.

GLENS FALLS VORTAC: DME unusable in following areas: 305-315° beyond 35 mi below 7,000'; 315-350° beyond 30 mi below 8,000'.

HAMPTON VORTAC: DME unusable following areas: 280-325° beyond 35 mi below 1,700' MSL; and 325-355° beyond 30 mi below 2,000' MSL.

HUGUENOT VORTAC: VOR unusable 210-230° beyond 20 mi below 6,500' MSL.

ITHACA VOR: VOR unusable 360-150° beyond 25 mi below 3,800' MSL.

KENNEDY VORTAC: VOR unusable below 1,500' MSL in the following areas: 015-030° beyond 30 mi; 030-045° beyond 26 mi; 060-075° beyond 24 mi; 075-100° beyond 30 mi; 100-150° beyond 28 mi; 150-165° beyond 26 mi; 165-215° beyond 30 mi; 215-270° beyond 26 mi; and 350-015° beyond 35 mi. VOR unusable below 2,000' MSL in following areas: 045-060° beyond 24 mi; 270-340° beyond 26 mi; and 340-350° beyond 30 mi. DME unusable within 9 nmi of VORTAC.

KINGSTON VOR: VOR unusable 045-050° beyond 35 mi below 4,300' MSL and 070-140° beyond 30 mi below 3,400' MSL.

LAGUARDIA VOR: VOR unusable in following areas: 015-025° beyond 20 mi below 1,900' MSL; 025-045° beyond 35 mi below 2,700' MSL; 065-075° beyond 30 mi below 1,700' MSL; 075-135° beyond 25 mi below 1,700' MSL; 135-145° beyond 35 mi below 1,700' MSL; 165-205° beyond 15 mi below 1,700' MSL; 205-215° beyond 35 mi below 1,700' MSL; 215-220° beyond 30 mi below 1,700' MSL; 220-230° beyond 25 mi below 1,700' MSL; 230-240° beyond 30 mi below 1,700' MSL; 240-250° beyond 20 mi below 1,700' MSL; 250-260° beyond 10 mi below 2,500' MSL; 260-270° beyond 20 mi below 1,700' MSL; 270-285° beyond 25 mi below 1,800' MSL; 285-295° beyond 30 mi below 2,700' MSL; 295-305° beyond 35 mi below 2,700' MSL; 315-325° beyond 35 mi below 3,200' MSL; 325-005° beyond 25 mi below 2,700' MSL.

PLATTSBURG VORTAC: VOR and DME unusable 260-270° beyond 35 mi below 6,000' MSL.

ROCHESTER VOR: VOR unusable 045-065° beyond 12 mi.

SARANAC LAKE VOR: VOR unusable beyond 25 mi in flwg areas: 360-015° below 5000' MSL; 015-025° below 4500' MSL; 025-100° below 5000' MSL; 100-165° below 9000' MSL; 165-180° below 7000' MSL; 180-190° below 6500' MSL; 190-200° below 7000' MSL; 200-220° below 6000' MSL; 220-240° below 5000' MSL; 240-295° below 5500' MSL; 295-305° below 7000' MSL; 305-360° below 4500' MSL.

NORTH CAROLINA

CHARLOTTE VORTAC: VOR unusable 010°-050°.

ELIZABETH CITY VOR: VOR unusable 026-042° and 085-100° all altitudes; 276-312° below 5000' MSL. Use Franklin VOR 130° radial for V-290 between Franklin VORTAC and Elizabeth City VOR, MEA 2,500'.

GOLDSBORO, SEYMOUR-JOHNSON AFB VOR: VOR unusable 290-320° and 100-145°.

GREENSBORO VORTAC: VOR unusable beyond 30 nmi below 14,500' MSL 350-010°.

NORTH DAKOTA

DICKINSON VORTAC: VOR unusable 090-120° beyond 40 mi btn FL 145 and FL 310 GTF Center RADAR service available.

OHIO

AKRON VORTAC: VOR unusable 030-080°. For V72 use published YNG VOR rad from ACO to YNG. SW bnd determine station passage at ACO by TO/FROM indication above 2,500' MSL.

BELLAIRE VORTAC: VOR unusable 325-345° below 6000' MSL.

BRIGGS VORTAC: VOR unusable 330-010°, 120-145° and 305-325°.

MONTGOMERY VOR: VOR unusable in the following areas: 033-070°, 085-135°, 155-225°, 250-280° and 295-023°.

STRONGSVILLE VOR: VOR unusable 080-200° beyond 35 nmi.

YOUNGSTOWN VORTAC: VORTAC unusable beyond 30 nmi from 140-180°.

OREGON

ASTORIA VORTAC: VOR unusable beyond 40 nmi below 7300' MSL 075-130°; below 6500' MSL 130-180°; below 4000' MSL 180-270°; below 2500' MSL 270-330°; below 6500' MSL 330-360°.

KLAMATH FALLS, VORTAC: VORTAC coverage 40 nmi at MOCA excp 10,000' MSL 020-085°; 18,000' MSL 085-120°; 12,000' MSL 190-340°; 14,000' MSL 340-020° plus awy coverage as published.

NEWPORT VORTAC: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000' MSL 350-150°; 600' MSL 150-170°; 6000' MSL 320-350°.

NORTH BEND VOR: VOR unusable beyond 40 nmi below 6000' MSL from 340-065° and below 6500' MSL 065-190°.

PORTLAND VORTAC: VORTAC 332° rad and the DME on the same 332° rad unusable beyond 40 nmi at 6,000'.

REDMOND VORTAC: VORTAC unusable below 11,000' MSL 190-210'; below 13,000' MSL 210-240°.

ROSEBURG VOR: VOR coverage 40 nmi at MOCA excp 11,500' MSL 070-085°; above 12,500' MSL 100-125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500' MSL 085-125°; 10,500' MSL 125-130°; 6000' MSL 215-285°. Unusable below 7000' MSL.

PENNSYLVANIA

ALLENTOWN VORTAC: VOR unusable 020-060° beyond 26 mi below 3,500' MSL.

ALTOONA VOR: VOR unusable 070-100°, 235-260°, 290-350°.

BRADFORD VORTAC: VORTAC unusable 145–156° beyond 15 mi.

BRADFORD RBN: H facility unusable 090–180° beyond 15 mi.

CARROLLTOWN VORTAC: VOR unusable 070–085° beyond 10 nmi.

CLARION VOR: VOR unusable 215–223°.

ELLWOOD CITY VORTAC: VOR unusable 310–335°.

HARRISBURG VORTAC: VOR unusable in following areas: 105–140° beyond 26 mi; 140–165° beyond 30 mi; and 195–230° beyond 28 mi. DME unusable 325–360° beyond 30 mi; and 360–025° beyond 35 mi.

IMPERIAL VORTAC: VOR unusable 150–170° below 8,000′ MSL and 345–360° below 14,500′ MSL.

LANCASTER VOR: VOR unusable in following areas: 190–220° beyond 25 mi below 3,000′ MSL; 220–250° beyond 25 mi below 4,000′ MSL; 320–340° beyond 15 mi below 5,000′ MSL; 320–340° beyond 25 mi below 6,000′ MSL.

LATROBE VOR: VOR unusable beyond 20 mi.

SELINSGROVE VORTAC: VOR unusable in following areas: 105–115° beyond 26 mi below 3,000′ MSL; 210–230° beyond 35 mi below 2,500′ MSL; and 250–285° beyond 26 mi below 3,400′ MSL. DME unusable 100–115° beyond 30 mi below 3,000′ MSL; 115–170° beyond 35 mi below 2,900′ MSL; 190–300° beyond 35 mi below 3,500′ MSL.

YARDLEY VORTAC: VOR unusable below 1,700′ MSL following areas: 250–265° beyond 17 mi; 265–280° beyond 10 mi; and 280–290° beyond 17 mi. DME unusable 225–275° in following areas: Beyond 15 mi below 2,400′ MSL and beyond 30 mi below 5,000′ MSL.

RHODE ISLAND

PROVIDENCE VORTAC: VOR and DME unusable 220–310° beyond 30 mi below 3,000′ MSL.

SOUTH CAROLINA

ALLENDALE VOR: VOR unusable on 171° radial beyond 20 mi below 4,500′ MSL.

FLORENCE VORTAC: VOR unusable 360–010° beyond 20 mi below 5000′ MSL.

TENNESSEE

KNOXVILLE VORTAC: VOR unusable 140–175° all alts, 175–186° above 17,000′ MSL.

TEXAS

AMARILLO VORTAC: DME unusable 110–235° beyond 15 NM below 7000′ MSL.

AUSTIN VORTAC: VOR unusable 260–320° beyond 35 mi below 3,500′ MSL.

EL PASO VORTAC: DME unusable 265–300′ beyond 30 mi below 9,200′ MSL.

HOUSTON VORTAC: DME unusable 085–210° beyond 35 mi below 2,500′ MSL.

SALT FLAT VORTAC: VORTAC unusable 031–049° beyond 30 NM below 15,000′ MSL.

UTAH

CEDAR CITY VOR: VOR unusable below 18,000′ MSL beyond 30 nmi 090–125° and beyond 35 nmi 125–150°.

DELTA VORTAC: VOR unusable beyond 40 nmi below 16,000′ MSL 040–080°.

HANKSVILLE VORTAC: VORTAC coverage restricted from 160 thru S to 190° 26 nmi at 14,000′ MSL.

LA SAL VORTAC: VOR unusable below 18,000′ MSL beyond 20 nmi from 330–005° and below 13,500′ MSL beyond 40 nmi from 170–200°.

LUCIN VOR: VOR unusable beyond 40 nmi below 15,000′ MSL 180–220°; below 12,000′ MSL 280–310°; below 11,000′ MSL 310–330°.

MILFORD VORTAC: VORTAC unusable beyond 17 nmi at MOCA, 025–115°, 30 nmi, 235–330° acct reduced coverage. Jet route 107 from Milford, Utah VORTAC to Rock Springs, Wyo VORTAC, continuous navigational signal coverage does not exist over the entire route segment below 28,000′. Moderate to hvy roughness over mountain ridges on 072° rad 10 nmi out.

OGDEN VORTAC: VORTAC unusable beyond 40 nmi below 21,000′ MSL 360–055°; below 16,500′ MSL 055 thru 075°; below 22,000′ MSL 075 thru 130°.

PROVO VORTAC: VORTAC unusable beyond 40 nmi elow 15,000′ MSL 010–035°; below 16,000′ MSL 035–050°; below 15,000′ MSL 275–285°; below 14,000′ MSL 285–295°. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY VORTAC: VORTAC unusable beyond 40 nmi below 19,000′ MSL 010–020°; below 20,000′ MSL 020–030°; below 23,000′ MSL 030–060°; below 24,000′ MSL 060–080°; below 19,000′ MSL 080–095°; below 17,000′ MSL 095–125°; below 16,000′ MSL 125–140°; below 16,000′ MSL 195–210°; below 10,000′ MSL 280–290°; below 16,000′ MSL 350–010°.

VERNAL VOR: VOR unusable below 14,000′ MSL beyond 40 nmi from 220–260°.

VERMONT

BURLINGTON VOR: VOR unusable 080–155° beyond 30 mi below 9,000′.

MONTPELLER VOR: VOR unusable 205–280° beyond 30 mi below 7,000′.

VIRGINIA

BROOKE VORTAC: DME unusable 230–270° beyond 30 mi below 1,500′ MSL.

FELKER VOR: VOR unreliable for instrument apchs. Unusable 1700′ MSL and below from 360–010° beyond 5 nmi, 010–020° beyond 10 nmi, 020–030° beyond 20 nmi, 030–040° beyond 10 nmi, 040–060° beyond 20 nmi, 190–210° beyond 5 nmi, 230–240° beyond 20 nmi, 240–300° beyond 5 nmi, 310–330° beyond 20 nmi.

HERNDON VORTAC: VOR unusable below 2,500′ MSL in following areas: 050–075° beyond 30 mi; 075–095° beyond 20 mi; 105–120° beyond 35 mi; and 165–215° beyond 20 mi.

LANGLEY VOR: VOR unusable from 355–010° beyond 18 nmi below MEA 030–070° beyond 20 nmi below MEA 170–190° beyond 13 nmi below 1700′ MSL.

LAWRENCEVILLE VOR: VOR unusable 215–250° beyond 8 mi below 1,800′ MSL and 215–270° between 14,500–18,000′ MSL.

LINDEN VORTAC: DME unusable 140–180° beyond 25 mi below 3,500′ MSL and 180–225° beyond 25 mi below 5,000′ MSL.

MONTEBELLO VOR: VOR unusable 110–220° beyond 35 mi below 5,000′ MSL.

WOODRUM VOR: VOR unusable 286–360° beyond 20 mi below 5,500′ MSL.

WASHINGTON

BELLINGHAM VORTAC: VORTAC coverage at MOCA at 40 nmi excp 130–150°, 4500′ MSL and 150–290°. 4000′ MSL. VOR intermittent roughness may be observed on V-23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RBN: H facil unusable 100–130° below 6500′ MSL.

OLYMPIA VORTAC: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280°. VOR 348° rad unusable below 4500′ VOR intermittent roughness may be observed on V287, 148° rad below 7000′ from 25 nmi thru 32 nmi S of VORTAC.

PASCO VOR: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270°. Coverage within R-6715 from 270–320° not flt checked.

PORT ANGEL8S VOR: VOR coverage 40 nmi; 220–110° at 7000′; 110-140° at 14,500′; 140–150° at 20,500′; 150-170 °at 29,000′; 170-190° at 20,500; 190–220° at 16,000′.

SEATTLE VORTAC: VORTAC unusable beyond 15 nmi below 18,000′ MSL from 158–165° beyond 20 nmi below 12,000′ MSL from 305-355° except as published on airways and at intersections. J501 309° mag rad unusable beyond 15 nmi below 12,000′ MSL and beyond 50 nmi below 18,000′ MSL. Random VOR and TACAN needle oscillations possible on all radials. Changeover point on J501, 50 nmi from Seattle.

WALLA WALLA VOR: VOR coverage at 40 nmi restricted below 6000′, 355-020° and 148-176°; below 7500′ from 130–150°; below 10,500′ from 020–060° and 110-130°; below 12,700′ from 065-110°.

● WENATCHEE VOR: VOR unusable beyond 20 nmi below 20,000′ MSL 000–020°; beyond 30 nmi below 20,000′ MSL 020–075°; beyond 40 nmi below 14,000′ MSL 075–090°: below 18,000′ MSL 090–190°: below 19,000 MSL 190-240°; below 16,000′ MSL 240–360°.

YAKIMA VORTAC: DME unusable beyond 40 nmi below 16,000′ MSL 340–010°, 14,000′ MSL 010–040°, 10,000′ MSL 040–240°, 11,000′ MSL 240–280°, 12,000′ MSL 280-340°.

WEST VIRGINIA

BECKLEY VOR: VOR unusable 325–350° beyond 20 mi below 5,000′ MSL excluding 335° radial at Montgomery Int.

WISCONSIN

LA CROSSE VOR: VOR unusable 100–150° and 230–060° beyond 20 mi below 3,300′ MSL.

TIMMERMAN VOR: VOR unusable 300–310° beyond 35 mi below 3,400′ MSL.

WAUSAU VORTAC: DME unusable 300–310° beyond 30 nmi below 3000′ MSL.

WYOMING

BOYSEN RESERVOIR VORTAC: VORTAC has momentary crs excursions and roughness all radials.

CASPER VORTAC: VORTAC operg with momentary cross pointer excursion on V-85 20–25 nmi S at and above MEA.

DUNOIR VOR: VOR restricted to awy rad use only.

SHERIDAN VORTAC: VORTAC unusable beyond 40 nmi below 17,000′ MSL 160–175°; below 15,000′ MSL 175–200° and below 16,500′ MSL 200–230°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these Check Points is explained in Part 1.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom Lake; 2800′. Alternate for lgt acft 099°; 9 NM clt twr and bcn; 2800′.

● **Alexander, La.** (England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

● **Alexandria, Minn.:** 224°, 8.3 mi, over apch end of rnwy 22; 2600′.

Allendale, S.C. (Barnwell Co. Arpt): 342°; 15 mi, over N/S rnwy.

Alliance, Nebr.: 307°; 4 nmi over outdoor theatre E edge of town; 5000′.

Alpena, Mich.: 256°; 10.3 NM, over Dam NE corner of Fletchers Pond; 2100′.

Anniston, Ala.; 082°; 9.5 NM, over center of segmented circle; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Muni): 278°; 13.6 NM, over ctl twr: 3200′.

Athens, Ga.: 025°; 11.5 NM, over red brick bldg inside tfc circle at crossroads in Danielsville: 2000′.

Augusta, Ga. (Bush Fld): 140°; 12.8 mi directly over No. 17 of rnwy 17; 1200′.

Augusta, Me. (State): 257°; over Rbn 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Battle Creek, Mich.: 262°; 11 mi from VORTAC over power house stacks 1 mi E of Comstock, Mich.; 2000′.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 057°; water twr. aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 146°; N end of rnwy 16–34; 1000′ MSL.

● **Bemidji, Minn.:** 131°; 5.0 mi, over apch end rnwy 13; 2400′.

Big Spring, Tex: 199°: 11.7 mi, over the rdo bcn; 3600′.

Blackwater, Mo.: 321°: 17.5 NM, over Marshall VORTAC bldg; 2000′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Blytheville, Ark.: 094°; 5.8 mi, over hangar adj to Admin Bldg: 1300′.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

● **Brainerd, Minn.:** 294°; 5.2 mi, over apch end rnwy 30; 2300′.

Britton, Tex: 285°: 13.5 mi, int hwy 81S and Farm Road #787 NW arpt; 1700′.

Brownwood, Tex.: 169°; 6.2 mi over arpt bcn; 2600′.

Brunswick, Ga. (McKinnon): 025°; 7.2 mi, over rot bcn; 1050′.

Burlington, Iowa: 296°; 11.4 NM, over rdo twr; 2500′.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 058°; 7 nmi over int E/W road and N/S railroad; 1500′.

● **Butte, Mont.:** 094°; 11.5 mi, int of rnwys 29–33; 6600′.

Cape Cirardeau, Mo.: 032°; 3.2 NM, over smoke stack NNE; 1700′.

Carleton, Mich. (Detroit Metro): 031°; 11 NM, the E/W and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21–25–30; 6300′.

Centralia, Ill. (Muni): 027°; 6.1 NM, at apch end of rnwy 36; 2000′.

Chadron, Nebr: 015°; railroad intersection 1.5 nmi N arpt bndry; 4500′.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000′.

● **Cheyenne, Wyo.:** 172°; 9.5 mi, over N end of drag strip; 7200′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 NM; 9000′.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Columbus, Nebr.: 079°; over grain elev Schuyler, Nebr.: 2500′.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cortez, Colo: 196°; apch end rnwy 21; 7000′.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000′.

Crestview, Fla.: 106°; 8.6 mi, over rot bcn twr; 1200′.

Crossville, Tenn (Meml Arpt): 333°; 11 nml over metal hangar: 2900′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; 5.5 NM, int of rnwys 21 and 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nml; 2500′.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Des Moines, Iowa: 293°; 5.5 NM, over grain elev Cummings, Iowa; 2500′.

● **Devils Lake, N. Dak.:** 178°; 7.2 nmi over 2087′ MSL rdo twr: 3000′.

Dublin, Ga. (Muni): 069°; 7.8 NM, over SW end NE/SW rnwy; 1400′.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nml SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin Fld): 004°; 6 NM, over white water twr in Smackover: 1500′.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

El Paso, Tex: 232°; 4.2 mi, over water twr, 2 mi SE of arpt; 5000′.

El Toro MCAS, Calif (Orange City): 254°; over int rnwys. 19R and midfld txwys; 200′.

Emporia, Kans.: 047°; 8.5 NM, over schoolhouse in Neosho Rapids, Kans: 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evansville, Ind. (Dress Memorial): 056°; 13 miles over intersection E/W and NE/SW runways; 2000′.

● **Fargo, N. Dak.** (Hector): 360°; 9.4 mi, apch end rnwy 35; 2000′.

Farmington, Mo.: 195°; 7 NM, over center of Open Air Theatre NE of the town of Fredericktou: 2300′.

Fayetteville, Ark.: 183°; 14.3 mi, white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; 8 NM, over water twr at Parktown, N.C.; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Marathon Oil Company Administration Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Flying Cloud, Minn.: 349°; 4.5 nmi, over smokestack at Glen Lake Sanatorium; 2000′.

Flippin, Ark: 051°; 5.0 mi, dual water twr at Mountain Home: 1900′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; 16 NM, water twr N side E/W hwy: 2600′.

Fort Smith, Ark.: 233°; 5.2 NM, water tank at N edge of arpt; 1500′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 800′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 800′.

Fulton Co., Ga.: 261°; 11.5 NM, over water twr tank in Douglasville, Ga; 2500′.

Galesburg, Ill. (Galesburg Arpt): 234°; 8 mi SW of the GBG VOR over RR int; 2100′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; 19 NM; at RR tracks and Main St. crossing in town of Cimarron, Kans: 3800′.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 2000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Munl): 083°; 16 NM, over water twr NE edge of Town of Brewster, Kans; 4000′.

Gordonsville, Va.: 305°; over lclzr ant at apch end of rnwy 21, Charlottesville-Abermarle Arpt., 16 NM from GVE-VOR; 2500′.

Grand Island, Nebr.: 142°; 5.5 NM; over smoke stack: 3100′.

Grand Junction, Colo. (Walker Fld): 059°; int rnwys 22 and 29; 6500′.

Grants, N. Mex: 295°; 12.7 mi, over FSS adj to rnwy: 7000′.

Greeley, Colo. (Weld Co. Arpt): GLL 205°; 5.8 NM, over Trml Bldg; 6100′.

Hallsville, Mo.; 225°; 14 NM; Int of E/W and N/S rnwys over Columbia Muni Arpt, Mo; 2700′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hastings, Nebr.: 266°; 11 NM; over RR crossing in center of town of Kenesaw; 3200′.

Hattiesburg, Miss. (Muni) :149°; 10 NM, over water twr and rot lgt bcn on arpt; 1150′.

● **Hibbing, Minn.:** 311°; 7.9 mi, over FSS Bldg; 2400′.

Hickory, N.C. (Muni): 225°; 10.2 NM, over end rnwy 24: 2200′.

Hill City, Kans.: 057°; 20 NM; Hill City Arpt bcn lgt: 4200′.

Hobart, Okla.: 353°; 7 mi, centerline of N/S rnwy: 2500′.

Hoquaim, Wash. (Bowerman); 059°; 8.5 NM, W end and center rnwy 6; 1000′.

Houghton, Mich. (County Meml): 241°; 3.5 NM, over WHDF com. bdcst twr; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Hutchinson, Kans.: 033°; 5 NM, apch end rnwy 3 Hutchinson Muni Arpt: 3500′.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

● **International Falls, Minn.:** 142°; 5.4 mi, RR bridge over stream of Ericsburg, Minn.; 2200′.

Iowa City, Iowa: 019°; over arpt bcn; 2000′.

Jack's Creek, Tenn. (McKellar): 267°; 27 NM, over bcn twr: 1500′.

Jackson, Miss. (Hawkins): 189°; 10.8 NM, over int rnwys 11–29 and 34–16; 1300′.

● **Janesville, Wis.:** 035°; 4.3 mi, over apch end of rnwy 04: 1900′.

Jefferson City, Mo.: 123°; 9.1 NM over hwy bridge on Osage rvr; 2500′ MSL.

Joliet, Ill.: 102°; 6.5 NM, over centerline of NW end of NW/SE rnwy; 1500′.

● **Kalispell, Mont.** (Flathead Co. Arpt): 314°; 6.4 mi; apch end rnwy 29; 4000′.

Kearney, Nebr.: 215°; 4.8 NM, over rdo twr KGFW; 3200′.

Keeler, Mich.: 266°; 13.3 NM, over int of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; 8.2 NM, over water twr at La Plata, Mo; 2500′.

Kokomo, Ind. (Marion Co. Arpt): 097°; 17.5 NM, over int NW/SE and NE/SW rnwys; 1000′.

● **La Crosse, Wis.:** 321°; 4.7 mi, RBn ant; 1800′.

Lafayette, Ind.: 135°; 10.4 NM, over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa (Lamoni); 041°; 12 NM, over hwy "Y" 1 NM W of Leon, Iowa; 2200′.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Muni): 025°; 17 NM, over water twr and rot lgt bcn E side of arpt; 1250′.

Lawrenceville, Va.: 123°; over arpt bcn; 1500′.

● **Lewistown, Mont.:** 072°; 5.4 mi, end of apch rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; 8.5 NM, grain elev along RR track: 3900′.

Lincoln, Nebr.: 082°; 9.8 NM, grain elev Waverly, Nebr; 2500′.

Litchfield, Mich.: 050°; 18 NM, NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Muni): 050°; 6.3 NM, rdo twr; 1800′.

Malden, Mo.: 349°; 14.8 NM, RR crossing 0.5 NM E of Dexter, Mo; 1500′.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17-35 rnwy. 5.0 nmi; 1500′.

Manhattan, Kans. (Mun): 062°; 6 nmi over RR bridge SE; 2,500′.

Manitowoc: 162°; 1.9 NM over Portland Cement Co. Stack; 1900′.

Marion, Ill.: 274°; 12 NM, int rnways 6-24 and 18-36 at Southern Arpt; 1500′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

Maxwell, Calif. (Willows-Glen Co. Arpt): 342°; over apch end rnwy 34; 600′.

McComb, Miss. (Pike Co.) :248°; 11 mi, rot arpt bcn; 1500′.

McCook, Nebr.: 311°; 8.5 NM, over int of rnwys 8 and 12; 3800′.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis.: 134°; 30 nmi over Horlick-Racine arpt; 2100′.

● **Minneapolis, Minn.** (Crystal Arpt): 166°; 4.9 mi, over apch end rnwy 13L; 1900′.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Monore, La.: 025°; 6.25 NM, over watertower 1 NM No. of arpt; 1100′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys: 3500′.

Montgomery, Ala. (Dannelly): 319°; 6.1 NM, over water twr; 1300′.

Monticello, Ark.: 305°; 5.7 nmi over white water twr; 1500′.

Muncie, Ind.: 179°; 8 NM, RR between Cowan and Oakville, Ind.; 2500′.

● **Muskegon, Mich. (Muskegon Co.):** 272°; 825 NM; over int of NW/SE and NE/SW rnwys; 1500′.

Myrtle Beach, S.C. (Crescent Beach Arpt): 238°; 6 mi, over silver water tank: 1100′.

Napa, Calif.: 046°; over arpt bcn; 500′.

Naperville, Ill.: 328°; 10 NM, over RR underpass lctd ½ NM NE of the DuPage Co. Arpt; 2000′.

Nashville, Tenn.:242°; 10.2 NM, over WSM rdo twr near Brentwood, Tenn.; 2500′.

Neola, Iowa: 047°; 18.3 NM, over grain elev Harlan, Iowa; 2500′.

Neosho, Mo.: 343°; 19 NM, over center triangle formed by the int of 3 rnwys of Joplin, Mo. Muni Arpt; 2500′.

New Bern, N.C.: 261°; 11 NM, over int of E/W rnwys Oak Grove (navy) arpt; 1100′.

New Orleans, La. (Lakefront Arpt): 081°; over Lakefront twr.

Newton, Iowa: 142°; 8 NM, apch end rnwy 31; 2500′.

Norfolk, Nebr.: 095°; 10.5 NM, over racetrack Stanton, Nebr; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

North Platte, Nebr. (Lee Bird): 083°; 17 NM, over water twr Brady, Nebr; 4000′.

Okmulgee, Okla.: 229°; 6 NM, smoke stack in Phillips refinery yard; 1900′.

Omaha, Nebra. (Eppley Fld): 310°; 10.2 NM, apch end rnwy 32; 2500′.

O'Neil, Nebr.: 117°; 9 NM, at int of E/W road and the RR 1/2 NM SE of Inman, Nebr; 3000′.

Ottumwa, Iowa (Muni); 303°; 6.9 NM, int of rnwys 32 and 22. 2500′.

● **Oxnard, Calif.:** 253°; 7.5 mi, red and white smokestack on beach; 1000′.

● **Park Rapids, Minn.:** 208°; 5.2 mi, over northern most of two twrs; 2500′.

Peck, Mich.: 163°; 23 NM, over apch end rnwy 3 on St. Clair Co. Arpt; 2200′.

● **Phillip, S.D.:** 156°; 5.0 mi, over 2712′ twr; 3300′.

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C. (Southern Pines Arpt): 086°; 9.5 NM, over windsock on top of hangar; 1500′.

Plainview, Tex. (Hale Co.): 024°; 6 NM, int rnwys 4-22 and 12-30; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500′.

Pocatello, Idaho: 031° over int of rnwy 21 and 25; 5450′.

Pontiac, Ill.: 255°; 26 NM over RR bridge near NW corner of Eureka, Ill.; 1800′.

Portland, Oreg.: (Intl): 162°; intersection rnwy 2 and center E/W txwy; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

Presque Isle, Me. (Loring AFB): 184°; Spragueville LFR site; 2000′.

Princeton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo, Colo. (Pueblo Mem'l): 294°; 7.8 NM over KOAA TV twr, 5.4 NM NW of arpt; 7300'.

Quitman, Tex.: 241°; 14.5 mi, water tank in town of Alba, Tex.; 1500'.

Rawlings, Wyo. (Muni): 065°; (Cherokee VOR), 17 nmi over FSS bldg on arpt; 7300'.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500'.

Rhinelander, Wis.: 201°; 5.6 NM over fire twr near ski slope; 3000'.

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500'.

Roberts, Ill.: 074°; 6 NM over int E/W hwy, N/S RR ½ mi N Buckley, Ill.; 1600'.

●**Rochester, Minn.:** 024°; 8.5 mi, int rnwys 2 and 31; 3000'.

Roswell, N. Mex: 027°; 4.9 mi, over apch end rnwy 3; 4000'.

Russell, Kans.: 092°; 16 NM, over water twr in center of town of Wilson, Kans; 2900'.

Sacramento, Calif.: 015°; apch end rnwy 02; 100'.

Saginaw, Mich. (Tri-City): 058°; 6.7 mi over hwy int US #10 and I 75; 1700'.

St. Joseph, Mo. (Rosecrans Meml): 167°; 10.7 NM, apch end rnwy 17; 2500'.

Salina, Kans.: 117°; 10 NM, over grain elevator town of Kipp; 2500'.

Salt Lake City, Utah: 159°; centerline rnwy 34L/16R entire length #1 Arpt; 4400'.

Samsville, Ill.: 064°; 19 NM, over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt, Ill.; 1500'.

Sault Ste Marie, Mich. (Mun): 336°; 4.25 NM, int E/W and NW/SE rnwys; 2100'.

Sayre, Okla. (Muni): 175°; 8 mi, over rot bcn; 3000'.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 5 nmi; 5000 MSL.

Shreveport, La. (Downtown): 290°; 10 NM, over white water twr; 1500'.

Shreveport, La. (Greater Shreveport): 175°; 19.3 mi, over Admin Bldg; 1200'.

Sinton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500'.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900'.

● **Stevens Point, Wisc.:** 314°; 5.0 mi, over 1449' rdo twr; 2500'.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000'.

Sulphur Springs, Tex.: 223°; 7 mi, over projector booth and snackbar within outdoor movie; 1600'.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000'.

Terre Haute, Ind. (Hulman): 229°; 3 NM, int of NE/SW and NW/SE rnwy; 2000'.

Texarkana, Ark.: 122°; 5.1 mi, over int rnwys 13–31 and 4–22; 1400'.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

Toccoa, Ga.: 179°; 6 NM, over arpt bcn; 2000'.

Traverse City, Mich. (Muni): 342°; 4.5 NM, at int of N/S and E/W rnwys; 1600'.

Troy, Ill.: 322°; 11 NM, over int N, S/E, W rnwys at Civic Meml Arpt., Alton, Ill; 1600'.

Tucson, Ariz.: 258°; main rnwy intersection; 2800'.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500'.

Valdosta, Ga.: 006°; 6 mi; over lgt bcn E side of arpt; 1200'.

Vandalia, Ill.: 170°; 5.8 NM, centerline at N end N/S rnwy; 1700'.

Vienna, Ga. (Cordele Arpt): 226°; 19 NM, over center of NE/SW rnwy; 1300'.

● **Waterloo, Iowa:** 127°; 8.2 mi, over center twr of stn KWWL; 2000'.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000'.

Waycross, Ga.: 097°; 8 mi, over wind tee in center of arpt; 1200'.

West Point, Ind.: 036°; 9.6 NM, over int of rnwys Purdue Univ. Arpt; 2000'.

Wichita, Kans. (Muni): 162°; 4.3 NM, apch end rnwy 14; 3300'.

Wichita Falls, Tex.: 011°; 8 NM, at bridge over Red River; 2100'.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000'.

●**Williston, N. Dak.** (Sloulin Fld): 121°; 6.1 mi, apch end rnwy 11: 3000'.

Wilmington, N.C. (New Hanover Co.): 204°; 5.5 NM over wea radar ant on arpt; 1100'.

Wink, Tex. (Winkler Co.): 149°; 5.9 NM, over int rnwys 22 and 13; 3900'.

●**Winner, S.D.** (Muni): 201°; 7.8 mi, over center of race track; 3100'.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100'.

Winston-Salem, N.C. (Smith-Reynolds): 295° (GSO VORTAC); 13.5 NM, over ctl twr; 2000'.

● **Worthington, Minn.:** 047°; 5.9 mi, over grain elev at Brewster, Minn.; 2800'.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600'.

●**Yankton, S.D.:** 257°; 6.8 mi, over twr; 2500'.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17–35; 400'.

GROUND

Albany, Ga.: 150°; 6 NM, center of tie down area on N edge of ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/Muni): 207°; 4.5 mi, lctd 985 SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt.): 002°; 3.2 mi. S end on curve of txwy 50' W apch end rnwy 35 centerline.

Anderson, S.C. (Muni): 039°; 6 NM, on ramp in front of Trml Bldg.

Ardmore, Okla. (Muni): 042°; 9 mi; adj to NW end NW/SE rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250' from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500' from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250' from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250' from centerline of rnwy 13–31.

VOR RECEIVER CHECK POINTS

Baltimore, Md. (Friendship Int'l): Lctn #1-293°; centerline of rnwy 10-28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10-28 on runup pad.

Bartlesville, Okla. (Phillips): 166°; 4 mi, opposite Trml on parallel taxi strip.

Beaumont, Tex. (Jefferson County): 052°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County): 140°; 5.1 mi, ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

● **Bismarck, N. Dak.**: 275°; 3.8 mi, N end ramp area just off apch end rnwy 12.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L-10R and 28R-10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 023°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City): 282°; 13.2 mi, on ramp S of Trml Bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex: 334°; 5 8 mi, immediately W of FSS and twr bldg on ramp.

● **Cedar Rapids, Iowa**: 080°; 3.2 mi, runup pad near apch end rnwy 13.

Chanute, Kans.: 051°; 5.7 NM, apch end rnwy 12.

Chattanooga, Tenn. (Lovell): 332°; 5.1 NM, centerline S txwy a point 175′ NE of centerline rnwy 32.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15-33.

Childress, Tex.: 353°; 3.7 mi, int of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex. (Eastwood): 097°; 2.8 NM, on W edge of parking ramp.

Columbia, S. C. (Metro): Lctn #1: 332°; 6 NM, E/W txwy (parallels rnwy 10-28). Lctn #2: 325°; 6.5 NM, W end of E/W txwy.

Columbia, S. C. (Owens Fld): 022°; 7.5 NM compass rose on parking ramp.

Columbus, Ga. (Muscogee Co.): 145°; 7.1 NM pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 096°; 6.8 mi, on center txwy between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla.: 300°; 4 mi, txwy near wind indicator and rot bcn lgt.

Dalhart, Tex.: 170°; 3.9 mi, SE corner of main ramp.

Dallas, Tex. (Addison): 159°; .75 mi, int of center and parallel txwys.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

● **Dickinson, N. Dak.**: 182°; 3.7 mi, int of E/W txwy and N/S txwy.

Dodge City Kans.: 150°; 5.3 NM, center of NW end of rnwy 14.

Dothan Arpt, Ala.: 334°; 3.0 mi, on ramp in front of Admin Bldg.

Douglas, Ariz. (Bisbee-Douglas Intl): 160°; int of SW ramp and txwy T-2.

● **Dubuque, Iowa**: 334°; 3.7 mi, on ramp at Trml Bldg.

● **Duluth, Minn.**: 012°; 2.3 mi, int of txwys leading to rnwys 3 and 31.

Duncan, Okla. (Halliburton Fld): 329°; 6 mi, Trml ramp at intsxn N/S and ctr txwys.

Dyersburg, Tenn.: 250°; 4.2 mi, int of ramp and center txwy.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

● **Eau Claire, Wis.**: 180°; 2.1 mi, center of concrete ramp 150′ W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): 028°; 5 NM, lctd on txwy leading from CG ramp.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Enid, Okla. (Woodring Fld): 348°; 0.5 mi, ramp W of Trml Bldg.

Erie, Pa. (Erie-Port Erie): 060°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Admin Bldg.

Florence, S.C.: 235°; 4.3 NM, on txwy W of the end of rnwy 18.

Fort Benning, Ga. (Lawson AAF): Ltcn #1-021°; .8 NM, runup area on txwy at apch end of rnwy 20. Lctn #2—130°; 1 NM, runup area on txwy at apch end of rnwy 32.

● **Fort Dodge, Iowa**: 118°; 6.1 nmi, W edge of Trml ramp.

Ft. Lauderdale, Fla. (Hollywood Intl Arpk): 120°; 1 mi, on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page): 172°; 1 mi, N side of Trml ramp.

Fort Riley, Kans. (Marshall AAF): 032°; 6.3 NM, on parking ramp adj to radar antenna.

Fort Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 24. Lctn #5—063°; run up area on txwy S apch end rnwy 24. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex. (Pecos Co.): 116°; 4 mi, on ramp N of Trml.

Frederick, Md. (Mun): 359°; txwy between rnwys near apch end rnwy 23.

Gage, Okla.: 109°; 5.7 mi, int txwys, NW corner of ramp.

Gallup, N. Mex. (Senator Clarke Fld): 050°; 5.2 mi, ctr of txwy in front of Term Bldg.

Goldsboro, N.C. (Seymour Johnson AFB): 280°; .6 NM, run up pad at apch end rnwy 8.

● **Great Falls, Mont.** (Int'l): #1-027°; 2.4 mi, int NE/SW and E/W txwys adj to apch end rnwy 34; #2—027°; 3.0 mi, on NE/SW txways 100′ SW rnwy 25.

● **Green Bay, Wis.** (Austin-Straubell): 141°; 4.6 mi, int of circular txwy, W of Admin Bldg and txwy leading to int of S and SE rnwys.

Greensboro, N.C. (High Point Arpt): 033°; 3.1 NM, ramp in front of twr.

Greenwood, Miss.: 060°; 4.3 mi, central txwy adj to ramp.

Greenwood, S.C. (County): 251°; .7 NM, on txwy apch end of rnwy 9.

Gulfport, Miss.: 098°; 0.7 mi, on ramp 100′ NW of ctl twr.

Harrison, Ark.: 131°; 4.3 mi, int txwy and ramp.

● **Helena, Mont.:** 235°; 0.7 mi, txwy adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County): 030°; 3.5 mi, on runup pad apch end rnwy 3.

Hoquiam, Wash. (Bowerman): 059°; W end and center rnwy 6; 1000′.

Hot Springs, Ark. (Meml Fld): 246°; .75 mi, runup pad rnwy 5.

Houston, Tex.: 292°; NW end rnwy 12.

Hyannis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld): 007°; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375′ from centerline of NW/SE rnwy.

● **Jamestown, N. Dak.:** 359°; 4.4 mi, junction of txwy leading from hangar with SW txwy.

Johnstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

Key West, Fla. (Intl): 127°; 3 mi, NW portion of ramp.

Kinston, N.C. (Stallings): 230°; 3.9 NM, 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga. (Callaway Arpt): 106°; 7 NM, on compass rose at taxi strip int aprxly 500′ due S of Admin Bldg.

Lakeland, Fla. (Muni): 352°; 0.8 mi, txwy leading from ctr of fld to Term.

Lancaster, Pa.: 277°; Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City): 053°; 5.4 NM, center of apch end rnwy 6.

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351° last txwy W side apchg rnwy 19.

Las Vegas, N. Mex: 231°; .7 mi, on apron N of FSS bldg.

Lawton, Okla.: 349°; 4.6 mi, int of Trml ramp and S taxi strip.

Little Rock, Ark. (Adams): 315°; 4.5 mi, on taxi strip adj to junction rnwy 14.

Livingston, Mission Fld, Mont: 208°; E side of txwy leading from ramp to rnwy.

Longview, Tex. (Gregg Co.): 126°; 2.5 mi, N end ramp on txwy to rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 103°; 4.5 mi, runup pad apch end rnwy 17R.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Lynchburg, Va. (Preston-Glen): 026°; mid txwy to rnwy 17–35.

Manhattan, Kans. (Muni): 145°; 0.5 NM, on ramp in front of Trml Bldg.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Muni): 314°; 5 NM, int NW/SE and NE/SW txwy, 450 E apch end rnwy 30.

Marianna, Fla.: 310°; 3.6 mi, ESE end txwy 6.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Marysville, Yuba Co. Arpt, Calif: 345°; warm up area to apch end of rnwy 14.

● **Mason City, Iowa:** 356°; 3.4 mi, on centerline S end of N/S rnwy.

McAlester, Okla. (Muni): 350°; 2 mi, int ramp and taxi strip.

McAllen, Tex. (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S rnwy. Lctn #2—012°; in front airline trml on gate two loading spot..

Melbourne, Fla. (John F. Kennedy Meml): 145°; 0.8 mi, NE corner of parking ramp.

Meridian, Miss. (Key): 121°; 3.8 mi, run-up ramp for rnwy 23.

Midland, Tex. (Air Trml): 178°; 4.3 mi, int txwy C and ramp in front of Trml Bldg.

● **Miles City, Mont.:** 036°; 4.2 mi, on txwy leading to rnwy 30.

Mineral Wells, Tex.: 307°; 4.5 mi, int of txwy and rnwy 31.

● **Missoula, Mont.** (County): 340°; 0.6 mi, edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates): Lctn #1: 107°; 7.9 mi, int of N/S and E/W txwys. E of rnwy 18–36. Lctn #2: 10[illegible]°; 7.6 mi, int of W ramp and W txwy.

Modesto (City/Co.), Calif.: 096°; E end of txwy to rnwy 29R.

Morgantown, W. Va.: 337°; on txwy in front of Term Bldg.

Muscle Shoals, Ala.: 289°; 6.3 mi, E end rnwy 11-29. equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX–AMA): 253°; on ramp in front of Admin Bldg.

New Bern: 088°; on compass rose at ramp.

New Haven, Conn. (Tweed-New Haven Arpt): 159°; ramp in front of Term.

New Orleans Intl, La. (Moisant Fld): 235°; perimeter txwy 113′ E of gas truck parking area, 394′ S of E/W txwy. 408′ W of concourse A gate 8, mrkd by yellow and white circle.

Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif.: (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Ocala, Fla. (Muni): 139°; 0.6 mi, on ramp near Trml Bldg.

Olympia, Wash.: 347°; on ramp in front of Admin Bldg.

Orlando, Fla. (Herndon): 300°; 0.8 mi, midpoint of N/S txwy on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Pahokee, Fla.: 344°; 5 mi, overrun area N end of rnwy 17.

Palacios, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; 0.6 mi, N/S txwy 1050′ N of Term Bldg.

Paris, Tex. (Cox Fld): 348°; 5.6 mi, int of N/S and E/W rnwys.

Parkersburg, W. Va. (Wood County): Lctn #1—2[illegible]°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

VOR RECEIVER CHECK POINTS

Pecos, Tex. (Muni): 133°; 5.5 mi, on ramp adj to center txwy.

Pellston, Mich. (Emmet Co.): 239°; 6.6 NM, int of centerlines of N/S and E/W txwys.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

● **Pierre, S. Dak.:** 250°; 5.5 mi, in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; 4 mi int of ctr txwy and N/S rnwy.

Ponca City, Okla.: 101°; 3.0 mi, taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; 5.7 NM, over circle on warmup pad apch end rnwy 27.

Pueblo, Colo.: 246°; painted circle with arrow on ramp W of Admin Bldg; 2.9 nmi.

Quincy, Ill. (Quincy-Bladwin Fld): 030°; 7.4 NM, at int of NE/SW txwy N of Trml Bldg.

Raleigh, N.C.: 244°; 1 NM, end rnwy 5.

● **Rapid City, S. Dak.:** 320°; 4.5 mi, in front of Admin Bldg adj to center txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo.: 180°; 25 NM from Boysen Reservoir VORTAC; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1–19 and 305′ from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turnaround E end rnwy 25; 1.9 nmi Lctn #2—261°; in center of turn-around W end rnwy 7; 3.1 nmi.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 261°; 4.3 NM, right 3 rnwy 33, marker.

Rome, Ga. (Russell Fld): 348°; 11.5 mi, Int of txwy 200′ S of Term Bldg.

● **St. Paul, Minn.** (Downtown Arpt): 291°; 5.0 mi, drain in center of int parking ramp and txwy in front of Admin Bldg.

St. Petersburg-Clearwater Intl, Fla: 268°; circle lctd N side of W end of ramp, 500′ SE of Saint Aircraft Bldg.

St. Thomas, V.I. (Harry S. Truman): 118°; 3.5 mi, on center point of arpt txwy.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis): 236°; 2.2 mi, E edge of ramp front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Jose, Calif, (Mun): 069°; in front of Fire and Rescue Bldg.

San Juan, Puerto Rico (Intl): 261°; 0.9 mi, lctd on txwy NE Trml Bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santa Rosa, Calif. (Sonoma Co. Arpt): 083.5°; SW corner main ramp.

Sante Fe, N. Mex. (New Muni): 334°; 4.7 NM, at Junction main int txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; 0.4 mi, on ramp 800′ N Trml Bldg.

Scottsbluff, Nebr. (Muni): 240°; 5.1 NM, NE edge ramp opposite Trml Bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.

● **Sioux City, Iowa:** 314°; 4.2 mi, painted circle directly in front of twr.

South Bend, Ind. (St. Joseph Co.): 178°; 3.8 NM, center of western N/S txwy 200′ N of N edge of Trml ramp.

Spartanburg, S.C. (Downtown Meml): 192°; 7.3 NM, at compass rose on ramp.

Springfield, Ill. (Capital): 214°; 3.8 NM, in front of twr at int NW/SE and NE/SW taxi strips.

Springfield Mo.: 191°; 6.8 NM, at bend in N/S txwy 400′ S of N end of taxi strip.

Stillwater, Okla. (Searcy Arpt): 173°; 4 mi, NW ramp and taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans. (Muni): 213°; 5.4 NM, N/S txwy W of tetrahedron.

Tri-City, Tenn.: HMV 282°; 13.2 NM on ramp S of Trml Bldg.

Truth or Consequences, N. Mex.: 157°; 2.8 mi, on NE/SW txwy 200′ NW of wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; .5 mi; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; .7 mi, over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van de Graaff): 241°; 4.3 mi, on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; 4 mi, on txwy adj to rnwy 11–29, adj to wind sock.

Vichy, Mo. (Rolla Natl Arpt): 241°; 2.9 NM, on txwy W of NE/SW rnwy.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex. (Muni): 132°; 3.5 mi, int of ramp and N taxi strip.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 051°; 1.7 mi, taxi strip at parking ramp adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

● **Watertown, S. Dak.:** 184°; 3.8 mi, SE corner of term ramp.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County) : 219°; txwy on E side of ramp.

Tucumcari, N. Mex: Lctn #1—255°; .5 mi; over square metal plate lctd on hangar ramp paved area. Lctn #2—226°; .7 mi. over painted orange circle, lctd on taxi strip 100' off end of rnwy 8.

Wichita Falls, Tex. (Muni) : 096°; 5.2 mi. NE edge of muni ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.) : 237°; vcnty of base operator ramp.

Youngstown, Ohio: Lctn #1, 182° compass rose end of rnwy 18. Lctn #2, 194°; NW txwy off apch end of rnwy 14; 300' from centerline rnwy 14-32.

Zanesville, Ohio: 010°; on arpt 270' NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

FLIGHT INFORMATION PUBLICATION POLICY

The following is, in essence, the statement issued by the FAA Administrator and published in the December 10, 1964, issue of the Federal Register, concerning the FAA policy as pertaining to the type of information that will be published as NOTAMs and in the Airman's Information Manual.

It is a pilot's inherent responsibility that he be alert at all times for and in anticipation of all circumstances, situations and conditions which affect the safe operation of his aircraft. For example, a pilot should expect to find air traffic at any time or place. At or near both civil and military airports and in the vicinity of known training areas, a pilot should expect concentrated air traffic although he should realize concentrations of air traffic are not limited to these places.

It is the general practice of the Agency to advertise by NOTAM or other flight information publications such information it may deem appropriate; information which the Agency may from time to time make available to pilots is solely for the purpose of assisting them in executing their regulatory responsibilities. Such information serves the aviation community as a whole and not pilots individually.

The fact that the Agency under one particular situation or another may or may not furnish information does not serve as a precedent of the Agency's responsibility to the aviation community; neither does it give assurance that other information of the same or similar nature will be advertised nor does it guarantee that any and all information known to the Agency will be advertised.

Consistent with the foregoing, it shall be the policy of the Federal Aviation Agency to furnish information only when, in the opinion of the Agency, a unique situation should be advertised and not to furnish routine information such as concentrations of air traffic, either civil or military. The Airman's Information Manual will not contain informative items concerning everyday circumstances that pilots should, either by good practice or regulation, expect to encounter or avoid.

July 1965

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 14, April 1966. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

May 1966

MILITARY CLIMB CORRIDORS

Military climb corridors are depicted on instrument and visual aeronautical charts. Civil pilots desiring to traverse these areas must obtain prior approval from the approach control facility within whose area the corridor falls. Most such facilities guard 122.5 mcs for this purpose.

January 1966

SELECTIVE CALLING SYSTEM (SELCAL)
FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	X	
Balboa	FAA	X	
Cold Bay	FAA	X	
Dallas	BNF	X	
Guam	FAA	X	
Honolulu	ARINC	X	X
Miami	ARINC	X	X
New York	ARINC	X	X
New Orleans	ARINC	X	X
Okinawa	ARINC	X	X
Pago Pago	FAA	X	
Point Barrow	FAA	X	
San Francisco	ARINC	X	X
Shemya	FAA	X	
San Juan	ARINC	X	X
Seattle	ARINC	X	X
Wake Island	FAA	X	

December 1964

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (AFOAPDA) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

FISH AND WILDLIFE SERVICE REGULATION

The Fish and Wildlife Service has the following regulation in effect governing the flight of aircraft on and over wildlife refuge areas:

> "The unauthorized operation of aircraft at low altitudes over, or the unauthorized landing of aircraft on a wildlife refuge area is prohibited, except in the event of emergency."

The Fish and Wildlife Service requests that pilots maintain a minimum altitude of 1,000 feet above the terrain of a wildlife refuge area.

November 1965

PRECISION APPROACH RADAR (PAR) SERVICE

Effective January 1, 1966, and for a period not to exceed one year, PAR systems at the following locations will be placed in an operational standby status until further notice, and associated PAR services, such as precision approaches and radar monitored instrument approaches, will be provided only when specifically requested by a pilot. Such request must be made on initial contact with approach control.

Detroit, Michigan (Willow Run Airport)
New York, New York (La Guardia Airport)
Oakland, California
Pittsburgh, Pennsylvania
Indianapolis, Indiana
Washington, D.C. (National Airport)
San Francisco, California
Boston, Massachusetts
Atlanta, Georgia
Chicago, Illinois (Midway Airport)
Dallas, Texas
Philadelphia, Pennsylvania
St. Louis, Missouri
Washington, D.C. (Dulles Airport)
Albuquerque, New Mexico

January 1966

TRAFFIC INFORMATION ON MERGING RADAR TARGETS

Effective July 31, 1966, ATC facilities will implement a traffic information service on merging radar targets to radar identified scheduled air carrier aircraft. Traffic information will be issued to a radar identified scheduled air carrier aircraft when his radar target is likely to merge with another observed radar target, unless the observed traffic is known to be separated by more than the minimum vertical separation for his altitude. This service will not be provided to aircraft while they are holding in a holding pattern. Pilots should expect other traffic to be in a holding pattern with approved separation. Such traffic information will be issued routinely unless the controller is engaged in the provision of separation to the extent that it is not possible to provide this traffic information.

A vector to avoid merging targets will be provided only at the pilot's request and then *only* on a workload permitting basis. The vector, when provided, will not necessarily provide approved radar separation (three or five miles). The controller will attempt to provide vectors only to the extent that the targets do not touch.

Standard phraseologies for issuing traffic information and vectors will be used.

July 1966

FEDERAL AVIATION REGULATION 91.103

The provisions of FAR 91.103 will apply as follows: Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-36S, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-36S, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

April 1965

SPECIAL FEDERAL AVIATION REGULATION NO. 15

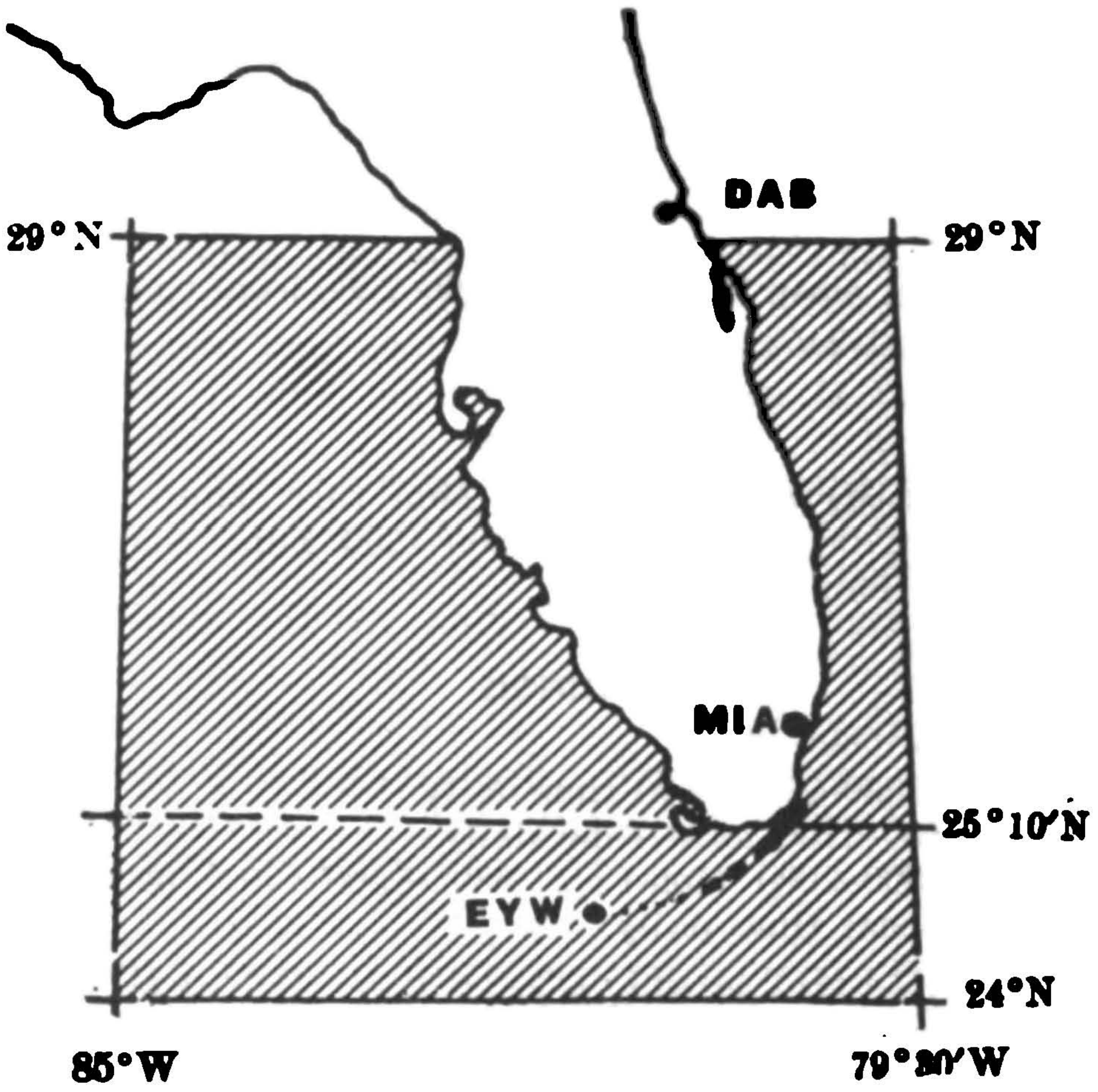
The following special rules of SFAR No. 15 are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SFAR No. 15 is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



REVIEW OF FDC NOTAMS

Changes in flight data, particularly of a regulatory nature such as changes to instrument approach procedures, MEA's, etc., which become effective prior to the normal revision of affected charts or publications, are disseminated as FDC NOTAMs which remain active until the item can be published. Therefore it is extremely important that the NOTAMs issued by FDC be reviewed during pre-flight planning.

July 1965

•MEA, MCA, MOCA, MRA, MAA

Effective immediately, following flight procedures established: V-257, PRC to Bishops Lake Int, Ariz. MEA 10000 ft., MOCA 9000 ft, MRA 11000 ft, Bishops Lake Int; Bishops Lake Int to GCN MEA 10000 ft. S-Bound, 9000 ft N-Bound.

•LOCATION IDENTIFIERS

Location identifiers are assigned as follows:

BUP ------ Burnham RBn, Pittsfield, Maine

PART-TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Chico: 0600–2100 local time Mon-Sat and 0800–2100 local time Sun.

Crows Landing ALF: 0800–1630 local time Mon–Fri. other times contact Stockton FSS.

COLORADO

Cortez: 1300–0400Z daily.

FLORIDA

St. Petersburg, Albert Whitted Arpt: 0600–2200 local time daily.

● **Sarasota:** 0600–2400 local time daily.

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ILLINOIS

Bloomington: 0600–2000.

Galesburg: 0530–2130 local time daily.

Marion: 0800–2100 local time daily.

Mattoon: 0500–2000 Mon-Fri. 0800–1500 Sat. 0800–2000 Sun. Local time daily.

INDIANA

Marion: 0700–2000 Mon–Sat; 0800–2000 Sun.

IOWA

● **Davenport:** 0700–1900 local time daily.

Fort Dodge: 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0900–1900 local time daily.

Manhattan: 0600–2300 local time daily.

LOUISIANA

Fort Polk: 0730–1630 local time Mon-Fri and 0730–1130 local time Sat.

MICHIGAN

Alpena: Continuous.

Benton Harbor: 0730–2300 local time daily.

Escanaba: 0730–2230 local time daily.

Iron Mountain: 0800–2100 local time daily.

Ironwood: 0630–2300 local time daily.

Menominee: 0700–2100 local time daily.

MINNESOTA

Bemidji: 0700–2130 local time daily.

Brainard: 0730–2030 local time daily.

Fairmont: 0700–1830 local time daily.

Mankato: 0715–1800 local time daily.

Thief River Falls: 0630–2145 local time daily.

Winona: 0900–2030 local time Mon thru Fri; 0800–1630 local time Sat and Sun.

Worthington: 0700–1845 local time daily.

MISSOURI

● **Chesterfield, Spirit of St. Louis Arpt:** 0700–2200 local time daily.

Jefferson City: 0600–2300 local time daily.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.

Columbus: 0700–1900 local time daily.

Hastings: 0600–2100 daily.

Kearney: 0700–1900 local time daily.

McCook: 0630–2230 local time daily.

Norfolk: 0730–2000 daily.

NEW MEXICO

Gallup: 0730–2100 local time daily.

NORTH DAKOTA

Devils Lake: 0600–2330 local time daily.

OKLAHOMA

Bartlesville: 0600–1900 local time Sun thru Fri, excp holidays and 0600–1800 local time Sat and holidays.

Enid: 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

OREGON

Corvallis Mun Arpt: 0800–2200 local time daily.

● **Hillsboro:** 0700–2300 local time daily.

SOUTH CAROLINA

Crescent Beach, Myrtle Beach Arpt: 0800–2130 local time daily.

SOUTH DAKOTA

Yankton: 0915–1900 local time daily.

TEXAS

Borger: 1230–2130 local time daily, except Sat.

Del Rio: 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Killeen, Robert Gray AAF: 0730–1630 local time Mon thru Fri and 0730–1130 local time Sat.

Lubbock (Reese AFB): 0630–1900 Mon- Thurs; 0630– 2300 Fri; 0800–1600 Sat; 1200–1800 Sun.

Temple: 0600–2200 daily.

UTAH

Vernal: 1100–0500Z daily.

WASHINGTON

Bremerton: 0900–1700 local time daily. Mon thru Fri.

Moses Lake, Grant Co. Arpt.: 0700–2300 local time daily.

Pullman: 0700–2400 local time daily.

Tacoma Industrial Arpt: 0600–2100 local time Mon thru Fri and 1300–2100 local time Sat and Sun.

WISCONSIN

Camp Douglas: 0730–2330 local time daily.

Janesville: 0700–2300 local time Mon thru Fri; 0700–2200 local time Sat and Sun.

Manitowoc: 0800–2130 local time daily.

Rhinelander: 0700–2230 local time daily.

Stevens Point: 0630–2300 local time daily.

Transition Areas

GEORGIA

Valdosta, Moody AFB: 0600–1900 Mon thru Thurs; 0600–2200 Fri; 0800–1600 Sat; 1200–1800 Sun. Not designated on holidays.

ABBREVIATED IFR DEPARTURE CLEARANCE PROGRAM

Effective April 16, 1966 Phase I of a standard abbreviated IFR departure clearance program will be implemented. To afford Air Traffic Control (ATC) facilities, and users an opportunity to gain experience and to make any necessary adjustments, the program will be implemented in three phases: Phase I—air carrier operations; Phase II—air carrier and military operations; Phase III—all type of operations.

ATC facilities will issue an abbreviated IFR departure based on the route filed in the IFR Flight Plan, provided the filed route can be approved with little or no revision. Its application will be based on the following:

a. It is expected that pilots will have a copy of the flight plan or that his company will provide the information on the clearance sheet or in his flight papers.

b. Pilots will not accept an abbreviated clearance if the flight plan filed with ATC has been changed by him before departure

c. Controllers will not issue an abbreviated clearance if he is aware that the filed flight plan is subsequently changed by the pilot.

d. The clearance as issued will be considered as a clearance to the destination airport filed in the flight plan.

e. The assigned en route altitude/flight level will be stated in the clearance.

f. Abbreviated clearances will not be used with stored flight plans having prescribed waiting periods until the time specified has elapsed.

g. To clear a departing aircraft via the route filed, the controller will state "CLEARED AS FILED, MAINTAIN (altitude/flight level)" and if required any additional departure instructions/information. The phrase "CLEARED AS FILED" is only intended as a clearance to proceed via the route filed in the flight plan and does not constitute authorization to maintain an altitude other than that specifically stated by ATC.

h. A specific SID as filed by the pilot will be considered as part of the flight plan. If a SID has not been filed, ATC may specify a SID (including transition, if necessary) to air carrier or military whenever appropriate.

Example

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) and if required additional departure instructions/information.

or

(ident) CLEARED AS FILED, MAINTAIN (altitude/flight level) DUTCH ONE DEPARTURE, and, if required, additional departure instructions/ information.

i. If it becomes necessary for the controller to clear a departing aircraft via a route which differs from that filed, the controller may issue approval of the flight plan to destination airport, plus the changed portion by stating "CLEARED AS FILED EXCEPT CHANGE (portion of route) TO READ (amended route) MAINTAIN (altitude/flight level) and, if required, any additional departure instructions/information.

Example

(ident) CLEARED AS FILED EXCEPT CHANGE ROUTE J 37 TO READ J 64, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

(ident) CLEARED AS FILED, EXCEPT CHANGE DUTCH ONE DEPARTURE TO READ SOUTH ISLAND TWO DEPARTURE, MAINTAIN (altitude/flight level) and, if required, additional departure instructions/information.

j. ATC WILL ISSUE A DETAILED CLEARANCE, WHEN REQUESTED BY THE PILOT.

To ensure the success of the program, consistency of operation and accurate relay of information between pilot and controller, pilots should:

a. Include specific SID/transitions and preferred routes in flight plans whenever such routes meet your needs.

b. If possible, prior to departure, avoid making changes to a flight plan which has been filed with ATC. Request desired changes *after departure* when in direct communications with the appropriate ATC facility.

c Request route/altitude verification or clarification from ATC if any portion of clearance is not clearly understood.

d. Use the following procedure and pharseology in initial radio communication with the ATC facility:

State aircraft identification, location, type of operation planned (IFR), and the point of first intended landing.

Example

KENNEDY CLEARANCE DELIVERY, THIS IS UNITED SEVEN TWENTY-FIVE, AT GATE TWENTY, IFR TO SAN FRANCISCO.

or

SOUTH BEND GROUND CONTROL, THIS IS AMERICAN ONE TWENTY-THREE, AT GATE 18, READY TO TAXI, IFR TO LOS ANGELES.

DME at ILS Locations

The FAA has installed Distance Measuring Equipment (DME) at selected ILS glide slope locations for the purpose of determining the operational advantages of DME when used in conjunction with ILS. DME capabilities have been incorporated in the ILS instrument approach procedure at the following locations:

Airport	*Runway*
John F. Kennedy International, New York	04R
Albany County, New York	19
Minneapolis—St. Paul International, Minnesota	11R
Dulles International, Washington, D.C.	01R
St. Joseph County, South Bend, Indiana	09, 27
Cleveland—Hopkins International, Ohio	05R, 23L
Reno, Nevada	34, 16
Lindbergh Field, San Diego, California	09, 27

An operational evaluation will be conducted by the FAA at these locations commencing during the month of July, 1966. Questionnaires will be made available to pilot personnel to obtain user comments during the evaluation period. Pilots conducting operations into these airports with DME equipped aircraft are encouraged to utilize the DME capability of the ILS facilities and to report their findings and recommendations by submitting completed questionnaires to the FAA.

July 1966

SIMULTANEOUS RADAR ADVISORIES ON LOCALIZER VOICE AND LOCAL CONTROL FREQUENCIES CHICAGO—O'HARA INTL. AIRPORT

Beginning at 0600 GMT, January 24, 1966, whenever parallel ILS approaches are in progress radar advisories will be provided on the tower frequency in addition to the localizer voice.

a. The monitor controller will have the capability of overriding the tower controller on the tower frequency.

b. The monitor controller will transmit simultaneously on the tower frequency and the appropriate localizer.

c. The pilot will be advised to monitor the tower frequency, however he has the prerogative of monitoring both the tower and localizer frequencies if he so desires.

d. The monitor will automatically be terminated at 1 mile.

e. The monitor controller will *not* advise when the monitor is terminated.

March 1966

PART-TIME MANNED FACILITIES AND AIDS

The testing of two types of low cost facilities for flight assistance service at local airports was completed on June 30, 1965. The facilities will be continued for an indefinite period.

The part-time manned facilities, which transmit and receive on 123.6 and 121.5 (emergency), the appropriate parent FSS shown in parenthesis, and the part-time facility hours of operation (local time) are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
●Manhattan Municipal Airport, Manhattan Kansas (Salina FSS) 0700–1900.
Crescent Beach Airport, Myrtle Beach, S.C. (Florence FSS) 0800–2000.

Airport Information Desk (AID) locations with the parent FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Concord, New Hampshire)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pecos, Texas—(Wink, Texas)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

October 1965

REROUTED AIRCRAFT AND ALTITUDE RESTRICTIONS

The purpose of this Notice is to re-emphasize expected pilot action when an aircraft is rerouted off a previously assigned route that included crossing altitude restrictions associated with fixes/radials.

The guiding principle to remember is that the *last ATC clearance* has precedence over related items of the previous ATC clearance. A clearance which amends *only* altitude items does not change the route items in the previous clearance. Similarly, a clearance which amends *only* the route items (whether based on vectors or ground NAVAIDS), does not change the altitude items, however, if the amended route no longer requires a flight to cross a specified fix/radial for which an associated crossing altitude was previously issued, the crossing altitude cannot apply and the previous crossing altitudes for such fixes/radials are no longer in effect.

An altitude restriction associated with a specific fix is only applicable at that *specific point.* An altitude restriction associated with a radial is applicable *anywhere the aircraft flight track crosses that radial.*

Pilots should request route/altitude verification or clarification from ATC if any portion of clearance or amendment is not clearly understood.

EXAMPLES:

(1) Flight receives departure clearance to destination airport to maintain an altitude of 16,000 feet and proceed via *fixes* (SID, if appropriate) BRAVO, XRAY, and TANGO with crossing altitudes of 3,000, 7,000, and 10,000 feet respectively. After take-off, the flight is rerouted via a vector (or a nonradar direct route) which by-passes *fixes* BRAVO, XRAY, and TANGO. Since the flight is no longer cleared over *fixes* BRAVO, XRAY, and TANGO and will not pass over them, altitude crossing restrictions at these *fixes* are no longer applicable. The flight is expected to effect an unrestricted climb to 16,000 feet, unless otherwise advised by air traffic control.

(2) Flight receives departure clearance to destination airport to maintain Flight Level 180, cross DELTA VOR 300 *radial* at 6,000 feet, *fix* FOXTROT at 8,000 feet and *fix* GOLF at Flight Level 180. After take-off prior to crossing DELTA VOR 300 radial, the flight is rerouted direct to *fix* GOLF (vector or nonradar). The flight will now intersect the DELTA VOR 300 *radial* at a different point and will by-pass fix FOXTROT. The flight is still required to cross the DELTA VOR 300 radial at 6,000 feet and *fix* GOLF at Flight Level 180. The crossing altitude restriction for *fix* FOXTROT is no longer applicable since the flight does not pass over it.

(3) Flight maintaining Flight Level 310 is proceeding on a clearance to *fix* DELTA, to cross *fix* ALFA at Flight Level 230, *fix* BRAVO at 14,000 feet, *fix* CHARLIE at 7,000 feet, *fix* DELTA at 4,000 feet and then maintain 4,000 feet. The flight is rerouted (vector or nonradar) to proceed from over *fix* ALFA direct to *fix* DELTA which by-passes *fixes* BRAVO and CHARLIE. The crossing restrictions at BRAVO and CHARLIE are no longer applicable. The flight is still required to cross *fix* ALFA at Flight Level 230, and to descend thereafter to 4,000 feet and cross *fix* DELTA at and maintain 4,000 feet.

(4) Flight maintaining an altitude of 7,000 feet receives a clearance to climb to and maintain Flight Level 230, cross ALFA VOR 250 *radial* at or above 9,000 feet and cross BRAVO VOR 300 radial at or above 10,000 feet. The flight is rerouted (vector or nonradar) prior to crossing either radial but will still cross these *radials;* therefore, the flight is still required to comply with the altitude restrictions associated with the radials.

RUNWAY GRADIENT

Runway gradient and its effect upon both the landing and takeoff performance of turbojet aircraft generally deserves particular attention for the following reasons.

1. In many instances runway gradient information is not always readily available to the pilot.
2. In some cases when given, it is not related to runway direction.
3. Generally, when given, it represents the average gradient for the total runway length published; therefore, certain segments may be more critical than others.
4. Approved airplane flight manuals are required to provide only data by which known runway gradients and their effect on takeoff performance may be computed. Usually gradients in excess of ±2% are not considered and pilots should never attempt to extrapolate the effect on takeoff performance in cases of known or suspected gradients greater than ±2%.
5. In the absence of established performance data by which runway gradients affect the landing performance of the aircraft, pilots should exercise extreme caution when adverse gradients are known or suspected to exist.

It is recommended that all pilots refer to the appropriate section(s) of the FAA approved flight manual, for the aircraft concerned, in determining that the proposed operation can be conducted in accordance with the performance data specified for the aircraft.

The Agency recognizes the need for accurate runway gradient data for as many locations as practicable and its availability to pilots. The Agency is at present developing criteria for selection of airports for which runway gradient data computations are required and is evaluating means for collection and dissemination of the information.

May 1966

• SPECIAL COLLECTION OF PILOTS REPORTS ON TURBULENCE

FAA is sponsoring a research program being conducted by the Weather Bureau to investigate a possible method of detection of areas of clear air turbulence (CAT) from radiosonde data. This study requires PIREPS near in space and time to the ascent of radiosonde balloons from 32 of the 69 radiosonde stations in the United States. PIREPS are needed on both the occurrence and non-occurrence of turbulence of all types, together with cloud and weather information.

Definitions of the *Degree* of turbulence are given in AIM, Part I. The following criteria should be used for *Duration* during this collection effort.

Occasional	Less than 1/3 of the time.
Intermittent	1/3 to 2/3 of the time.
Continuous	More than 2/3 of the time.

During the period from 0002Z, December 11, 1966, to 2400Z, December 20, 1966, high altitude controllers of twelve ARTC centers* will solicit PIREPS from pilots flying within a 100 NM radius of the 32 radiosonde stations at FL 240 and above. All pilots are urgently requested to cooperate with this data collection effort to the maximum extent possible, and in addition, initiate PIREPS whenever CAT is encountered.

* The twelve ARTC Centers involved are Albuquerque, Atlanta, Chicago, Cleveland, Denver, Fort Worth, Indianapolis, Kansas City, Los Angeles, Memphis, Salt Lake City, and Washington.

• ALTERATION OF ALASKAN DISTANT EARLY WARNING IDENTIFICATION ZONE

Effective December 8, 1966 § 99.47 of Part 99 is amended, by striking out the words "50°00'N, 175°00'W; 60°00'N, 175°00'W; 61°45'N, 177°00'W," and inserting the words "50°00'N, 180°00'; 60°00'N, 180°00'" in place thereof.

• VFR AIRPORT TRAFFIC PATTERNS
(In accordance with FAR Part 91.89(c))

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
Somerset Hills Basking Ridge N.J.	33	Right turns	1000' MSL
	28	Climb straightout until R.R. tracks then turn left	1000' MSL
Somerset Somerville N.J.	30	Turn right 10° to avoid Hyde area, then wide left	1000' MSL Small acft 1500' MSL Large acft

DISTRICT OF COLUMBIA

WASHINGTON PROHIBITED AREA P-56

NOISE ABATEMENT PROCEDURES

DEPARTURES

NORTHWEST SOUTH NORTHEAST

JET AIRCRAFT

Follow Potomac or Anacostia River. From take-off climb to 1500', reduce to target thrust setting programmed to give approximately 500 FPM climb. Maintain this thrust setting and speed appropriate for flap setting until passing through 3000' altitude. Stay over the River until passing through 3000' altitude unless, otherwise instructed by ATC. At this point, proceed at SOP climb, speed not to exceed 210 knots until released by ATC.

1- AND 2-ENGINE PROPELLER AIRCRAFT

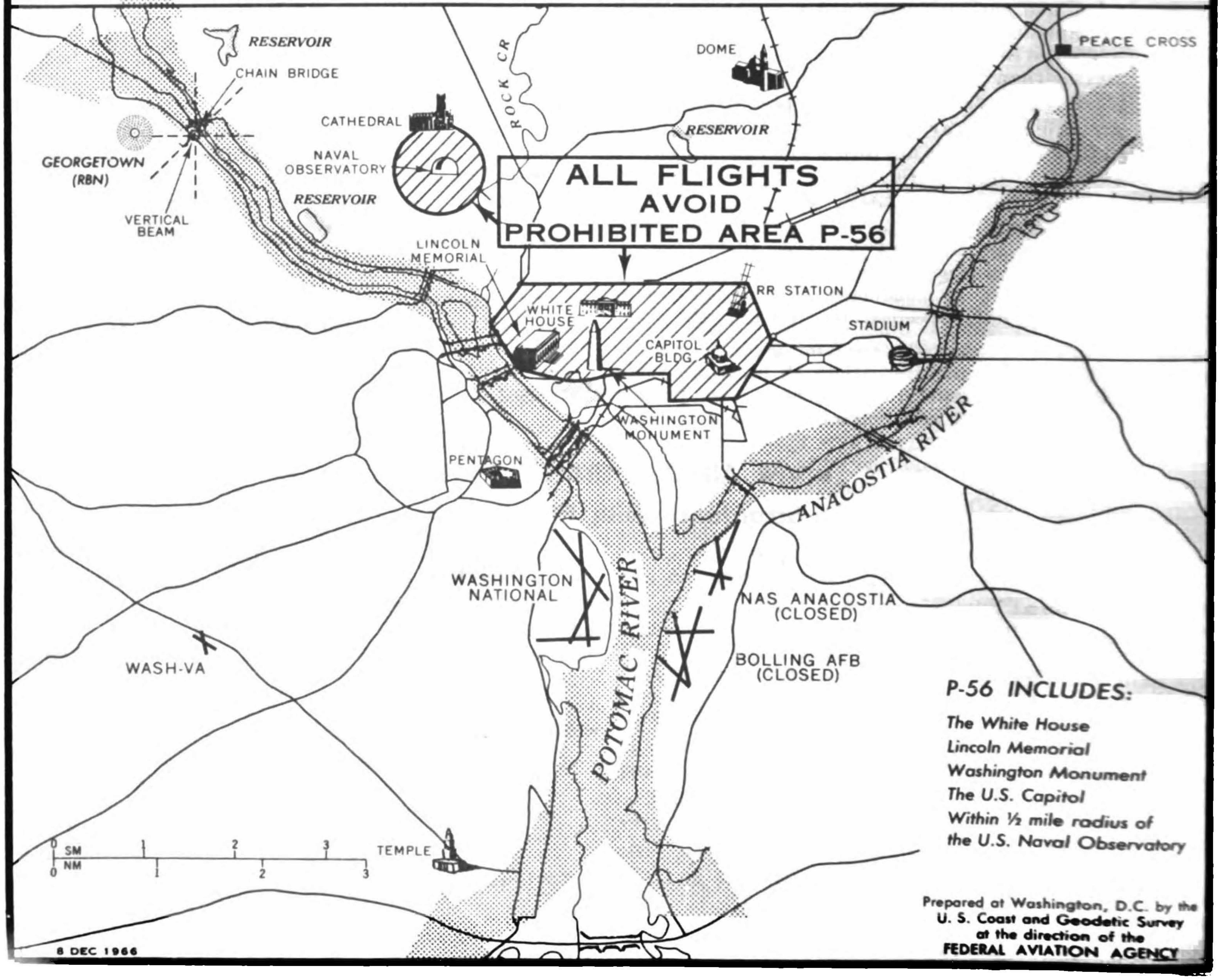
Follow Potomac or Anacostia River as appropriate. From take-off climb to 1500' prior to turning on course unless instructed to turn sooner by ATC.

4-ENGINE PROPELLER AIRCRAFT

Follow Potomac or Anacostia River as appropriate. From take-off climb to 2000' prior to turning on course unless instructed to turn sooner by ATC.

ARRIVALS

Follow the natural flyways provided by the Rivers.
Remain at 2500' or higher while en route to final.
When conducting IFR approaches from the northwest, when in the pilot's judgment and weather conditions permit, depart the radial being tracked to fly over the River on approach to landing.
A guiding light installed at Chain Bridge assists pilots in staying over the Potomac River at night during approaches from the Northwest.
On VFR approaches from the Northwest, fly inbound over the Potomac and avoid overflight of congested areas.
If VFR go around is required, climb over the River to 2500', enter traffic pattern for subsequent approach.


RESERVOIR
CHAIN BRIDGE
GEORGETOWN (RBN)
VERTICAL BEAM
CATHEDRAL
NAVAL OBSERVATORY
RESERVOIR
ROCK CR
DOME
RESERVOIR
PEACE CROSS
ALL FLIGHTS AVOID PROHIBITED AREA P-56
LINCOLN MEMORIAL
WHITE HOUSE
RR STATION
STADIUM
CAPITOL BLDG.
WASHINGTON MONUMENT
PENTAGON
ANACOSTIA RIVER
WASHINGTON NATIONAL
POTOMAC RIVER
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
WASH-VA
SM
NM
0
1
2
3
TEMPLE
8 DEC 1966

P-56 INCLUDES:

The White House
Lincoln Memorial
Washington Monument
The U.S. Capitol
Within ½ mile radius of the U.S. Naval Observatory

Prepared at Washington, D.C. by the
U. S. Coast and Geodetic Survey
at the direction of the
FEDERAL AVIATION AGENCY

Atlanta

GEORGIA

TERMINAL RADAR SERVICE

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia as one of the first of selected locations to evaluate the program. The evaluation was completed on June 1, 1963. This evaluation and subsequent service is part of a National Terminal Radar Program and Atlanta Terminal Radar Control is now in Stage III of the National Program.

Included in Stage III are the following services:

1. Radar control of IFR traffic and radar advisories on nonparticipating aircraft on a *workload permitting basis.*
2. Radar vectoring and sequencing on a *full time basis* of all IFR & VFR aircraft landing at Atlanta Airport.
3. Provide a separation service between *all participating* aircraft operating in the Atlanta Terminal Radar Service Area.

The Atlanta Terminal Radar Service Area includes all of Atlanta Airport Control Zone up to 7000 feet MSL. In addition, all airspace within a 15-statute mile radius of Atlanta Airport is included up to 7000 feet MSL with the following exclusions:

1. **Airspace North of V18 airway from the surface to 3000 feet MSL.**
2. **Airspace South of V18 airway from the surface to 2000 feet MSL.**
3. **All airspace within a 1½ statute mile radius of Edwards Skyport, Gunn Airport, and all airspace within the Dobbins AFB Control Zone.**

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlanta TRSA shall be operated in accordance with current IFR procedures.
2. **VFR Flights**
   - a. Airports within the Atlanta TRSA:
     - (1) Arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be advised by the tower when to contact departure or terminal control and the frequency to be used.
   - b. Airports underlying the Atlanta TRSA:
     - (1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
     - (2) Departing aircraft will be expected to contact Atlanta Terminal Control on the frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.
   - c. Transiting Aircraft—Aircraft desiring to transit the TRSA will be expected to contact Atlanta Terminal Control on specified frequencies and in relation to geographical fixes listed in d. below.
   - d. Frequencies and Fixes—En route aircraft should establish communications with Atlanta Terminal Control approximately 25 miles from Atlanta Airport. Aircraft entering the TRSA north of Airway V-18 should use 119.8 or 381.6 MC; Aircraft entering the TRSA south of Airway V-18 should use 119.3 or 343.6 MC. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.7 MC and listen on the appropriate frequency specified above.

In addition to published radio fixes and other prominent geographical fixes, the following geographical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	" "	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conyers	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

   NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

GEORGIA

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

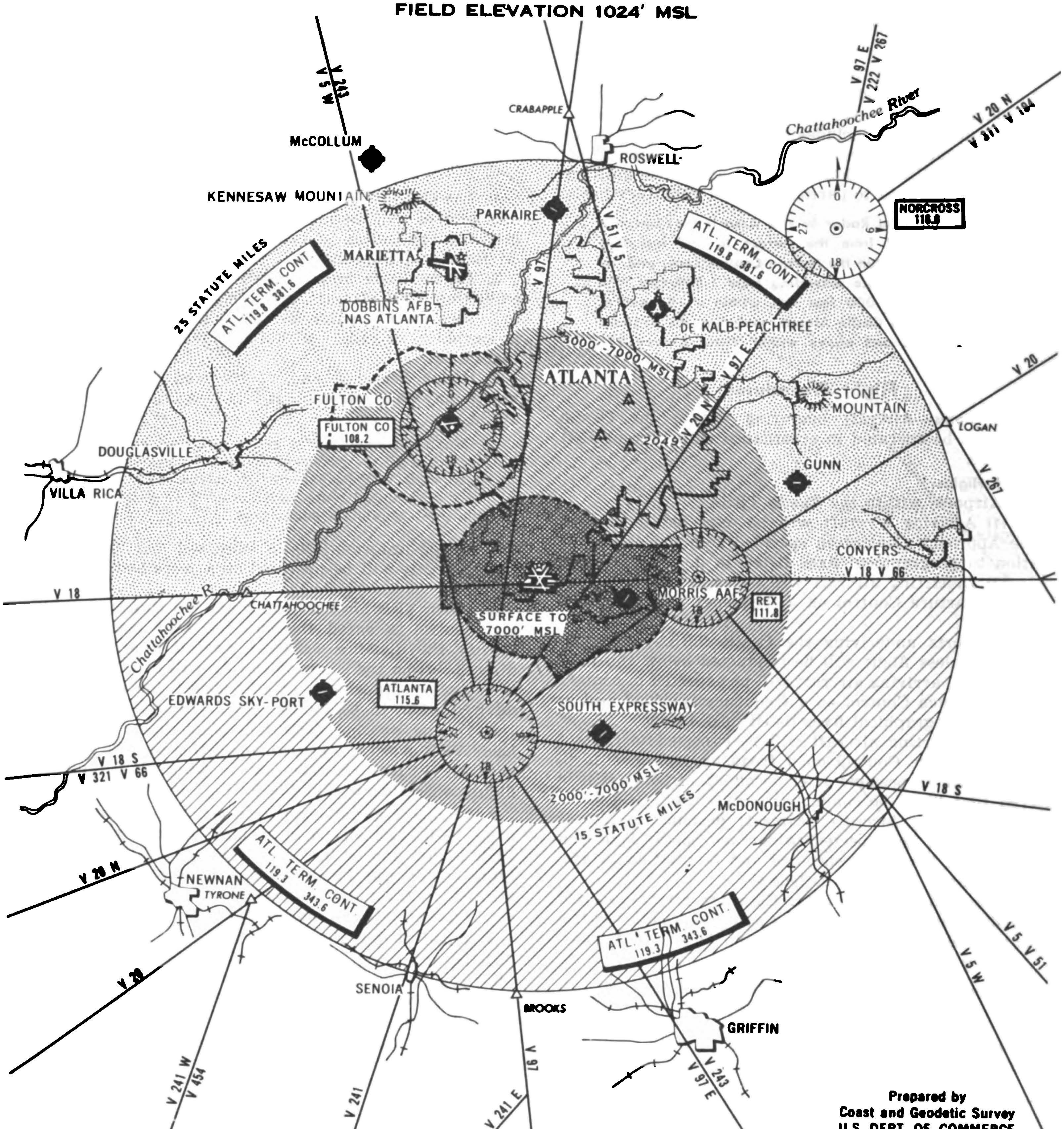
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024′ MSL


V 243
V 5 W
McCOLLUM
CRABAPPLE
ROSWELL
V 97 E
V 222 V 267
Chattahoochee River
V 20 N
V 311 V 194
KENNESAW MOUNTAIN
PARKAIRE
NORCROSS
116.6
ATL. TERM. CONT.
119.8 381.6
25 STATUTE MILES
MARIETTA
V 97
V 51 V 5
DOBBINS AFB
NAS ATLANTA
DE KALB-PEACHTREE
3000′-7000′ MSL
ATLANTA
V 97 E
V 20
FULTON CO
FULTON CO
108.2
V 20 N
2049
STONE MOUNTAIN
LOGAN
DOUGLASVILLE
GUNN
VILLA RICA
V 267
CONYERS
V 18 V 66
V 18
CHATTAHOOCHEE
Chattahoochee R
SURFACE TO
7000′ MSL
MORRIS AAF
REX
111.8
EDWARDS SKY-PORT
ATLANTA
115.6
SOUTH EXPRESSWAY
V 18 S
V 321 V 66
V 18 S
2000′-7000′ MSL
15 STATUTE MILES
McDONOUGH
V 20 N
NEWNAN
TYRONE
ATL. TERM. CONT.
119.3 343.6
ATL. TERM. CONT.
119.3 343.6
V 5 V 51
V 20
V 5 W
SENOIA
BROOKS
GRIFFIN
V 241 W
V 454
V 241
V 97
V 241 E
V 243
V 97 E

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

LEGEND

TERMINAL RADAR SERVICE AREA	▨ 2000′-7000′	■ SURFACE TO 7000′	▩ 3000′-7000′
CONTACT OR CALL-UP AREAS	North of V 18	░	
	South of V 18	▨	

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West-Northwest
Crows Landing (NAS)	West
City of Gustine	West-Southwest
City of Los Banos	South-Southwest
City of Dos Palos	South
City of Chowchilla	East-Southeast
City of Madera	East-Southeast
City of Mariposa	East-Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

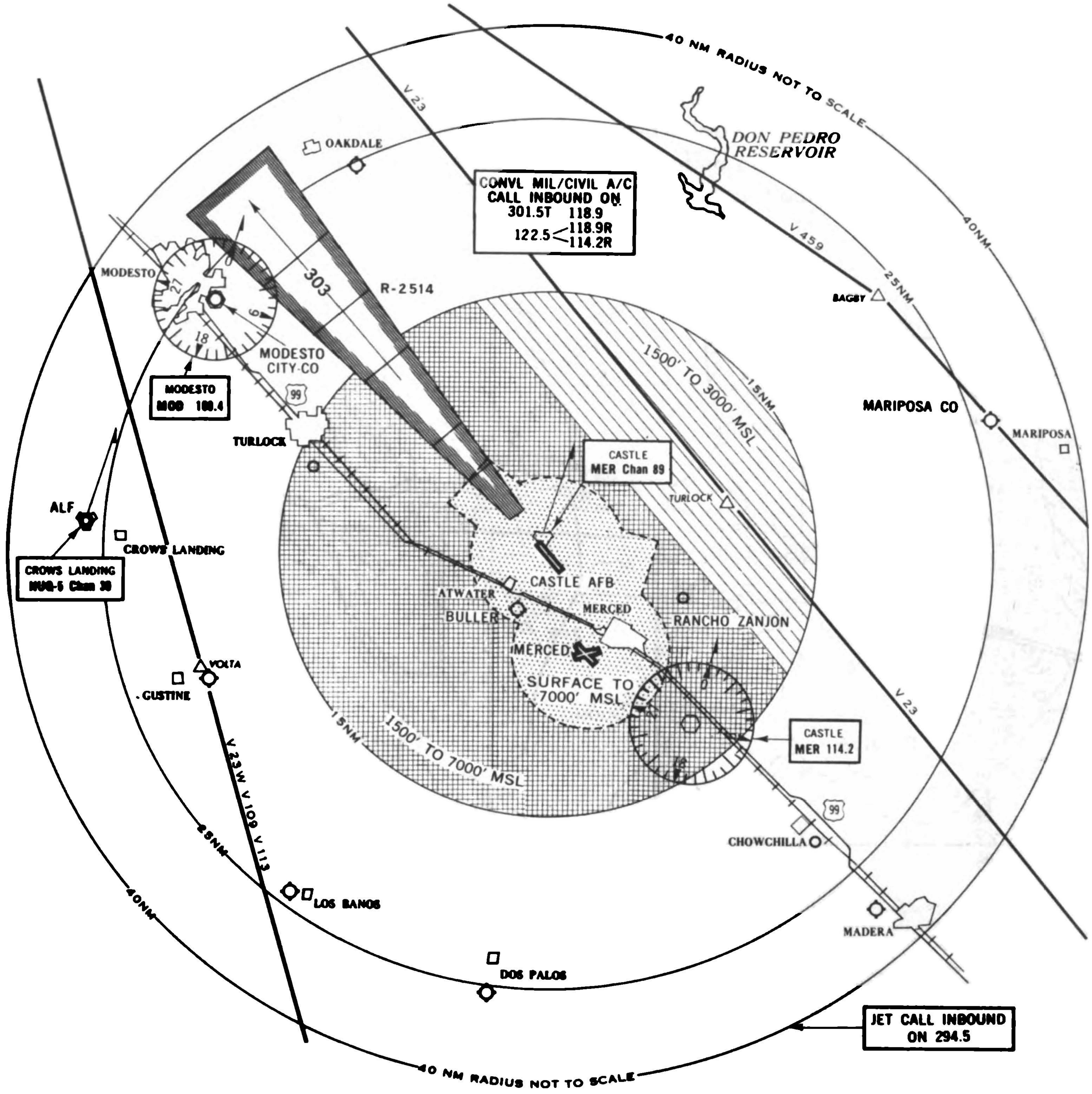
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188' MSL


40 NM RADIUS NOT TO SCALE
V 23
OAKDALE
DON PEDRO RESERVOIR
CONVL MIL/CIVIL A/C CALL INBOUND ON 301.5T 118.9 122.5<118.9R 114.2R
V 459
40NM
25NM
BAGBY
MODESTO
27
9
18
303
R-2514
MODESTO CITY-CO
MODESTO MOD 108.4
99
TURLOCK
1500' TO 3000' MSL
15NM
MARIPOSA CO
MARIPOSA
CASTLE MER Chan 89
TURLOCK
ALF
CROWS LANDING
CROWS LANDING NUQ-5 Chan 30
CASTLE AFB
ATWATER
BULLER
MERCED
RANCHO ZANJON
MERCED
SURFACE TO 7000' MSL
VOLTA
GUSTINE
15NM
1500' TO 7000' MSL
CASTLE MER 114.2
V 23
V 23W V 109 V 113
25NM
99
CHOWCHILLA
40NM
LOS BANOS
MADERA
DOS PALOS
JET CALL INBOUND ON 294.5
40 NM RADIUS NOT TO SCALE

This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA ░ SURFACE TO 7000' ▧ 1500' TO 3000' ▦ 1500' TO 7000'

CONTACT OR CALL-UP AREAS CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

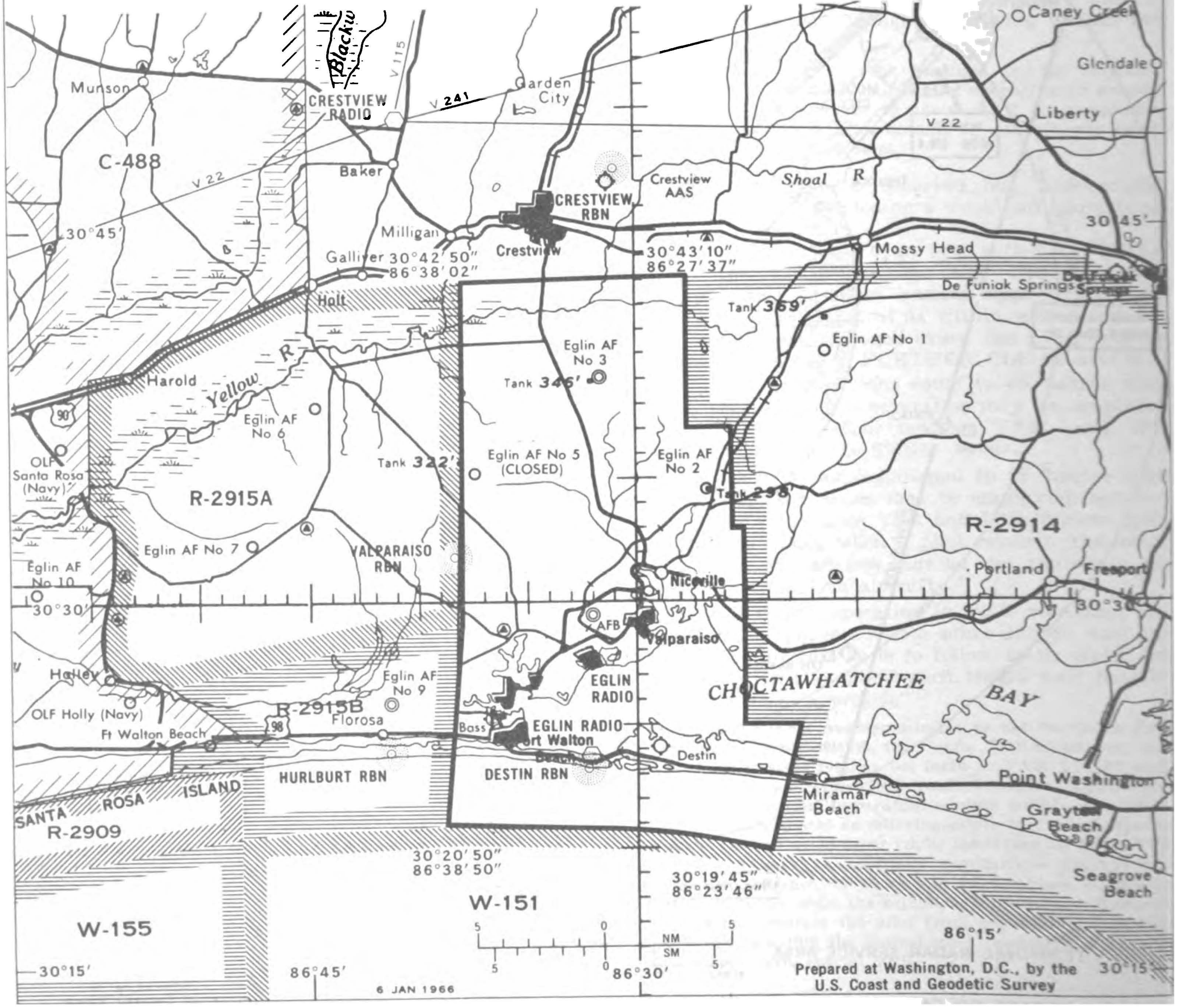
16 SEP 1966

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

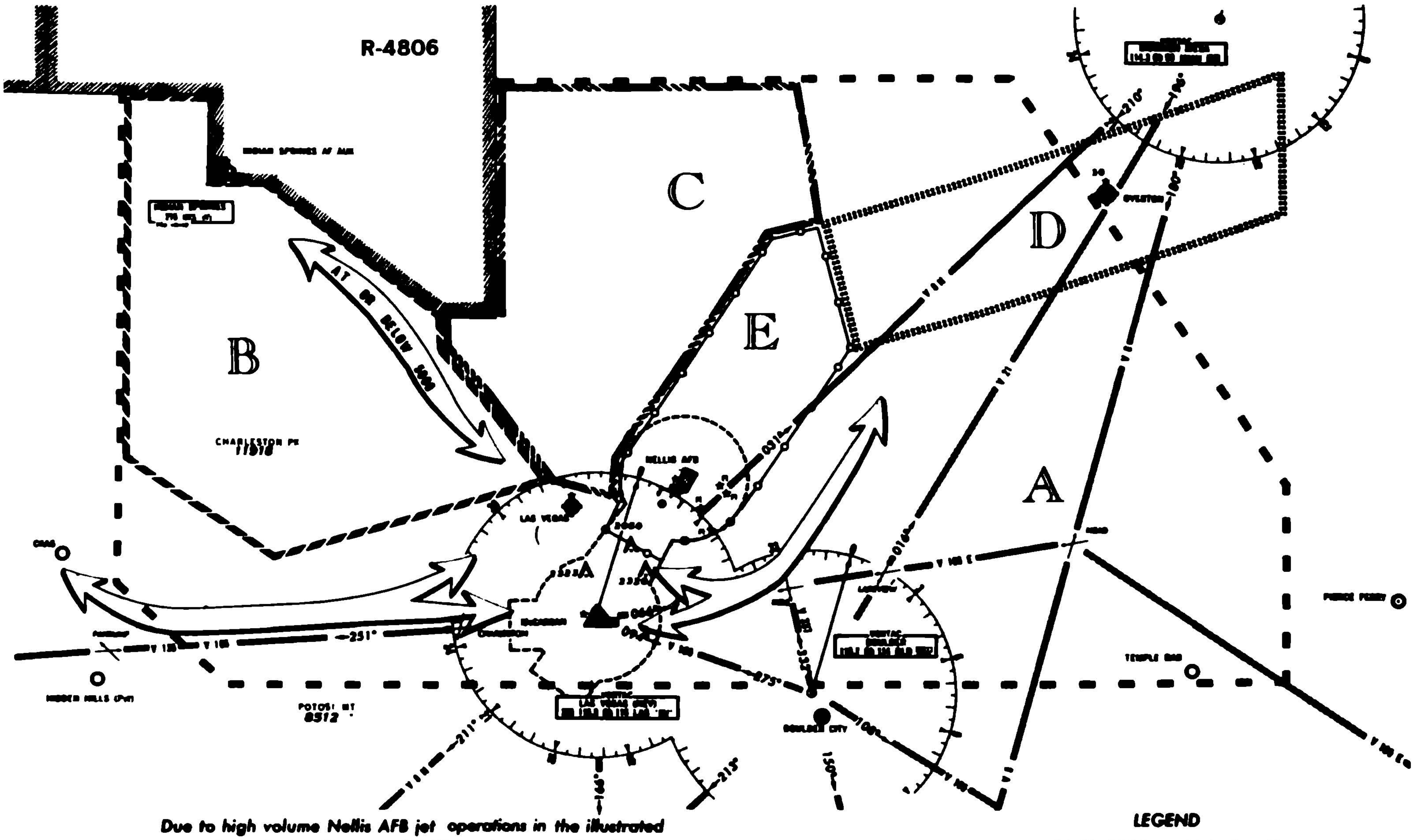
A special rule in effect sunrise to sunset, Monday through Saturday ***requires*** *pilots to obtain information about special activities operating between* ***R-2914*** *and* ***R-2915A*** *and B. These activities use varying altitudes but altitudes for VFR flight* ***are always*** *available. Contact Crestview Radio (122.1,123.6,126.7) or* ***Eglin RAPCON*** *(119.3)* ***for*** *information.*


86°45'
86°15'
Blackw
CRESTVIEW RADIO
V 115
V 241
Garden City
Munson
C-488
V 22
Baker
Milligan
CRESTVIEW RBN
Crestview AAS
Shoal R
Caney Creek
Glendale
Liberty
V 22
30°45'
30°45'
Galliver 30°42'50" 86°38'02"
Crestview
30°43'10" 86°27'37"
Mossy Head
De Funiak Springs
DeFuniak Springs
Holt
Tank 359'
Eglin AF No 1
Eglin AF No 3
Tank 346'
Harold
Yellow R
90
Eglin AF No 6
OLF Santa Rosa (Navy)
Tank 322'
Eglin AF No 5 (CLOSED)
Eglin AF No 2
Tank 298'
R-2915A
R-2914
Eglin AF No 7
VALPARAISO RBN
Eglin AF No 10
30°30'
Niceville
Portland
Freeport
30°30'
AFB
Valparaiso
Holley
Eglin AF No 9
EGLIN RADIO
CHOCTAWHATCHEE BAY
OLF Holly (Navy)
R-2915B
Florosa
Ft Walton Beach
98
Boss
EGLIN RADIO
Fort Walton Beach
Destin
HURLBURT RBN
DESTIN RBN
Miramar Beach
Point Washington
Grayton Beach
SANTA ROSA ISLAND
R-2909
30°20'50" 86°38'50"
30°19'45" 86°23'46"
Seagrove Beach
W-151
W-155
5 0 5
NM
SM
5 0 5
86°15'
30°15'
86°45'
86°30'
30°15'

6 JAN 1966

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA


R-4806
C
B
D
E
A
A
A
INDIAN SPRINGS AF AUX
CHARLESTON PK 11918
AT OR BELOW 9000
NELLIS AFB
LAS VEGAS
BOULDER CITY
POTOSI MT 8512
HIDDEN HILLS (Pvt)
TEMPLE BAR
PIERCE FERRY
MEAD
—251°
V 135
V 105
—166°
150°

Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. ***Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;***
2. ***a. Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.***
   - ***Aircraft inbound from the NE should contact Mormon Mesa Radio prior to passing the Morman Mesa Vortac for flight information.***

   b. Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Las Vegas Air Terminal.

LEGEND

Nellis AFB based jet aircraft VFR departure and arrival areas. Altitudes are Mean Sea Level

A	▬ ▬ ▬	FL 230
B	▰▰▰▰	5,500 to FL 230
C	▬▬⋯▬▬	Surface to FL 230
D	ıııııııııııııı	8,000 to 9,000
E	○——○——○	Surface to 9,000 incl.

Recommended itinerant VFR routes ⟷

Base And Airspace Compiled From 56th Edition Of Mt Whitney And 61st Edition Of Los Angeles Sectional Aeronautical Charts

10 | | | | | | | | | | 0 NAUTICAL 10 MILES 20 30 40 50
10 | | | | | | | | | | 0 STATUTE 10 MILES 20 30 40 50

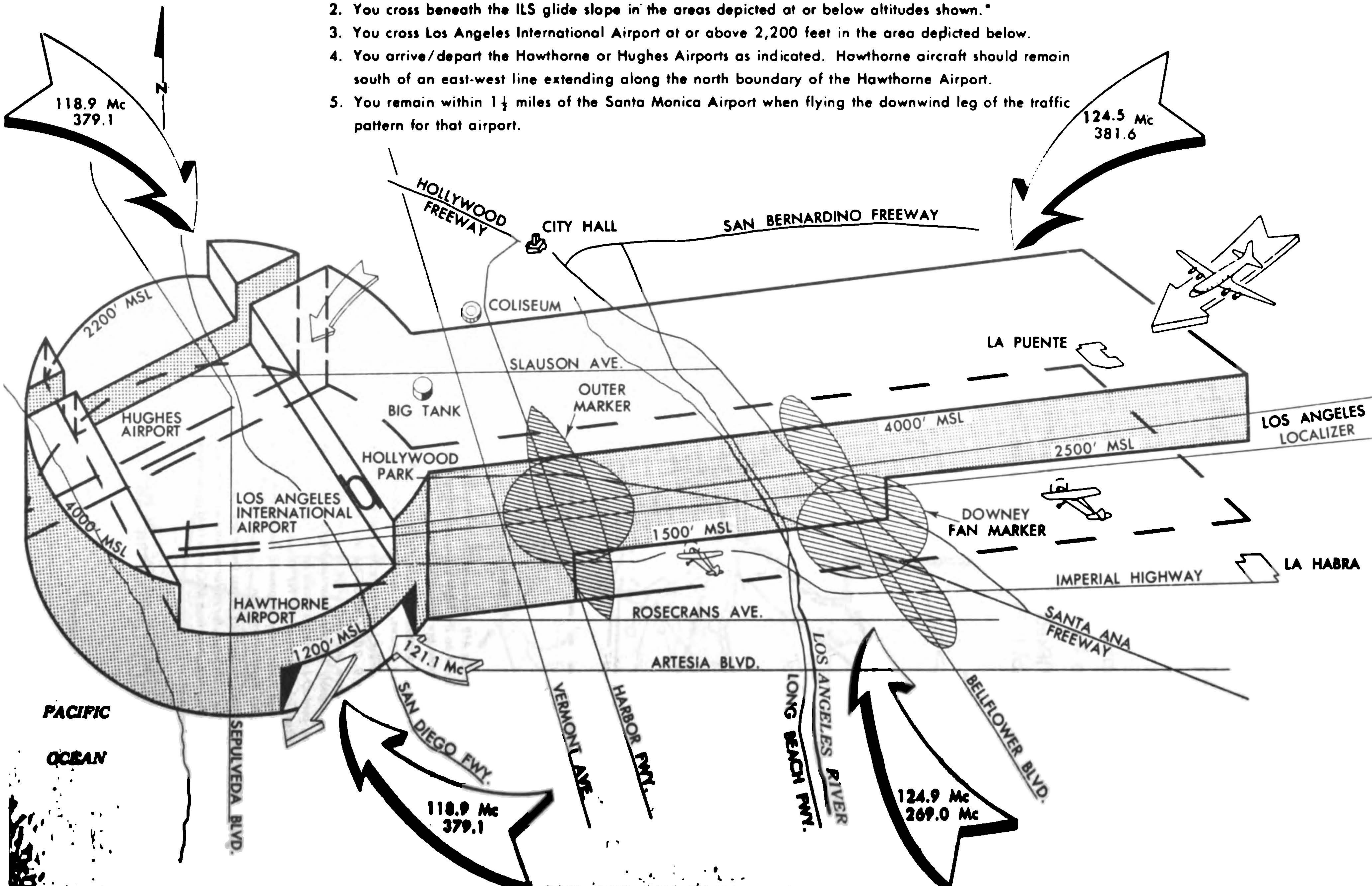
Prepared by
Coast and Geodetic Survey
U.S. DEPT OF COMMERCE

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.*
3. You cross Los Angeles International Airport at or above 2,200 feet in the area depicted below.
4. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
5. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.

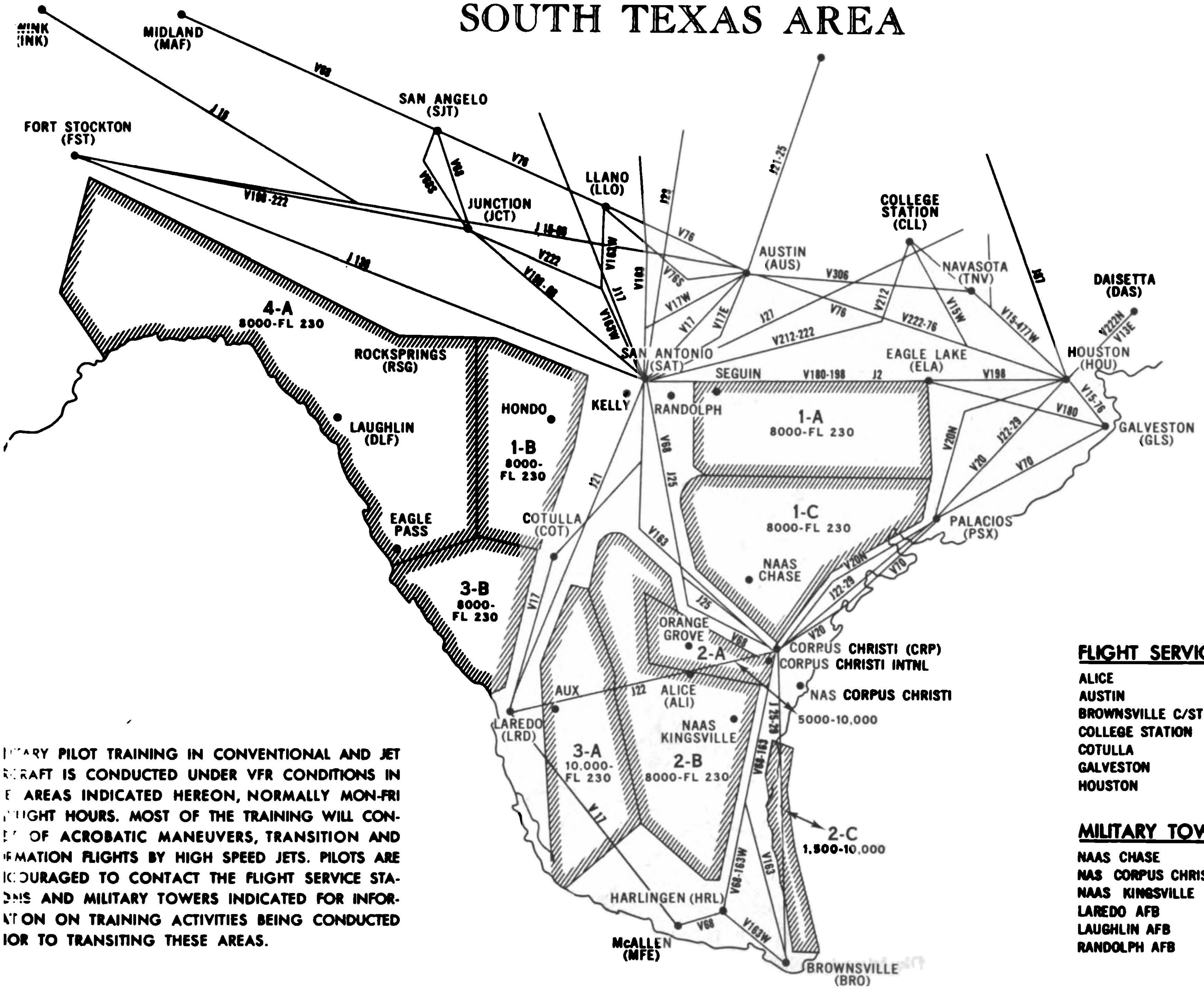

118.9 Mc
379.1
N
124.5 Mc
381.6
HOLLYWOOD FREEWAY
CITY HALL
SAN BERNARDINO FREEWAY
COLISEUM
2200' MSL
SLAUSON AVE.
LA PUENTE
OUTER MARKER
BIG TANK
HUGHES AIRPORT
HOLLYWOOD PARK
4000' MSL
LOS ANGELES LOCALIZER
2500' MSL
LOS ANGELES INTERNATIONAL AIRPORT
4000' MSL
1500' MSL
DOWNEY FAN MARKER
LA HABRA
IMPERIAL HIGHWAY
HAWTHORNE AIRPORT
ROSECRANS AVE.
SANTA ANA FREEWAY
1200' MSL
121.1 Mc
ARTESIA BLVD.
PACIFIC OCEAN
SAN DIEGO FWY.
VERMONT AVE.
HARBOR FWY.
LONG BEACH FWY.
LOS ANGELES RIVER
BELLFLOWER BLVD.
SEPULVEDA BLVD.
118.9 Mc
379.1
124.9 Mc
269.0 Mc

*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Printed at Washington, D.C., by the U.S. Coast and Geodetic Survey

VFR FLIGHT ADVISORY SERVICE CONCERNING MILITARY TRAINING ACTIVITY IN SOUTH TEXAS AREA

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE


WINK (INK)
MIDLAND (MAF)
FORT STOCKTON (FST)
SAN ANGELO (SJT)
JUNCTION (JCT)
LLANO (LLO)
AUSTIN (AUS)
COLLEGE STATION (CLL)
NAVASOTA (TNV)
DAISETTA (DAS)
HOUSTON (HOU)
GALVESTON (GLS)
EAGLE LAKE (ELA)
PALACIOS (PSX)
SAN ANTONIO (SAT)
SEGUIN
RANDOLPH
KELLY
HONDO
ROCKSPRINGS (RSG)
LAUGHLIN (DLF)
EAGLE PASS
COTULLA (COT)
NAAS CHASE
ORANGE GROVE
ALICE (ALI)
NAAS KINGSVILLE
AUX
LAREDO (LRD)
CORPUS CHRISTI (CRP)
CORPUS CHRISTI INTNL
NAS CORPUS CHRISTI
5000-10,000
HARLINGEN (HRL)
McALLEN (MFE)
BROWNSVILLE (BRO)
4-A 8000-FL 230
1-B 8000-FL 230
3-B 8000-FL 230
1-A 8000-FL 230
1-C 8000-FL 230
2-A
2-B 8000-FL 230
3-A 10,000-FL 230
2-C 1,500-10,000
V66
J18
V16-222
J138
V76
V66
V305
J15-86
V222
V16-68
V163W
J17
V163
V17W
V76S
V17
V17E
J23
J21-25
V306
J27
V212-222
V212
V76
V222-76
V15W
V15-477W
J87
V222N
V13E
V180-198
J2
V198
V15-76
V180
V20N
V20
J22-29
V70
V68
J25
J21
V163
V17
J22
V68-163
V163
V68-163W
V163W
V68
J25-29

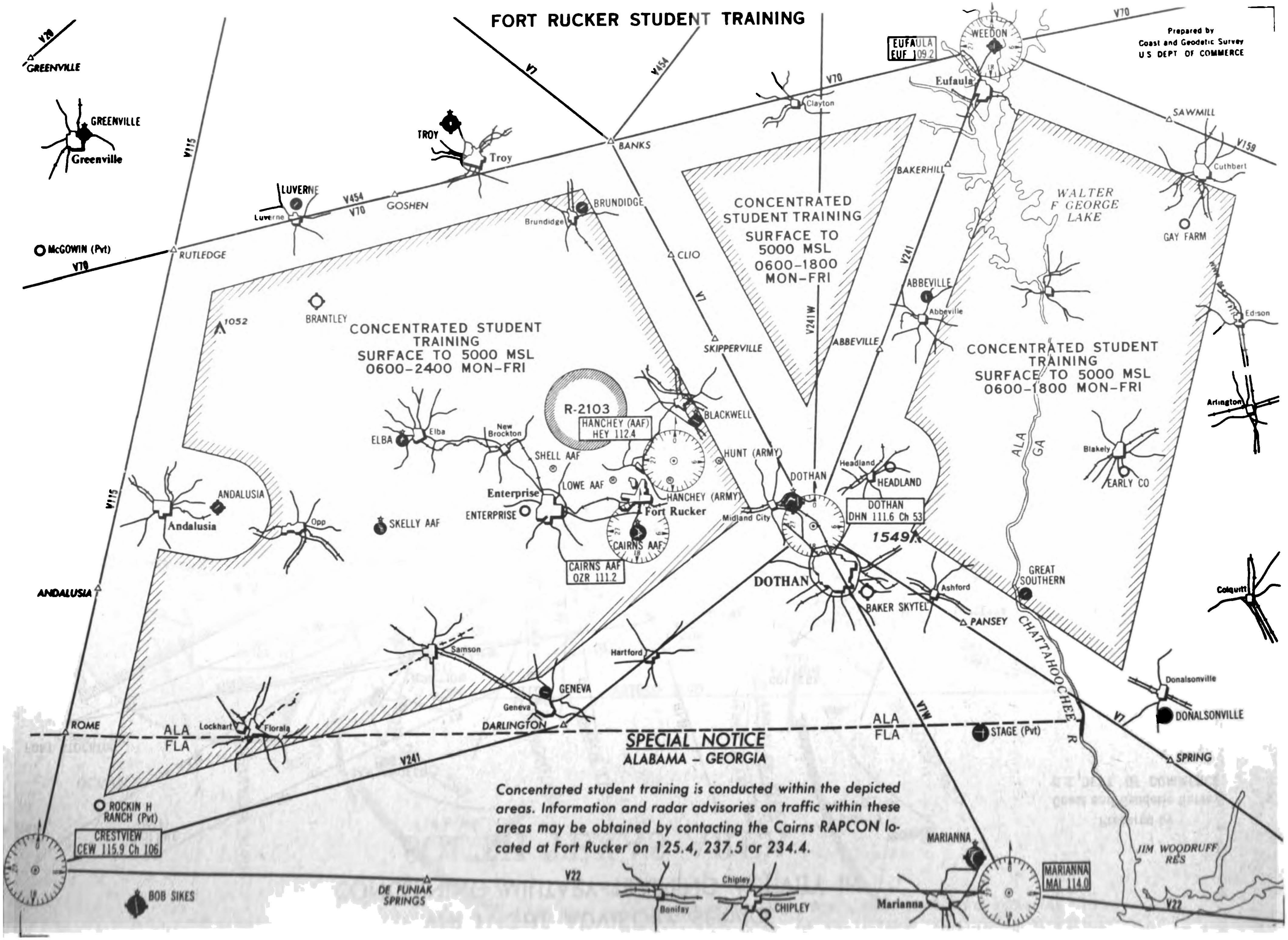
ARY PILOT TRAINING IN CONVENTIONAL AND JET RAFT IS CONDUCTED UNDER VFR CONDITIONS IN AREAS INDICATED HEREON, NORMALLY MON-FRI IGHT HOURS. MOST OF THE TRAINING WILL CON- OF ACROBATIC MANEUVERS, TRANSITION AND MATION FLIGHTS BY HIGH SPEED JETS. PILOTS ARE OURAGED TO CONTACT THE FLIGHT SERVICE STA- NS AND MILITARY TOWERS INDICATED FOR INFOR- ON ON TRAINING ACTIVITIES BEING CONDUCTED IOR TO TRANSITING THESE AREAS.

FLIGHT SERVICE STATIONS

ALICE
AUSTIN
BROWNSVILLE C/ST
COLLEGE STATION
COTULLA
GALVESTON
HOUSTON
JUNCTION
McALLEN
MIDLAND
PALACIOS
SAN ANGELO C/ST
SAN ANTONIO
WINK

MILITARY TOWERS	FREQ
NAAS CHASE	134.1 142.74
NAS CORPUS CHRISTI	126.2 142.74
NAAS KINGSVILLE	118.9 134.1
LAREDO AFB	122.5R 118.5T
LAUGHLIN AFB	126.2
RANDOLPH AFB	126.2

FORT RUCKER STUDENT TRAINING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U S DEPT OF COMMERCE
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-2400 MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800
MON-FRI
CONCENTRATED STUDENT TRAINING
SURFACE TO 5000 MSL
0600-1800 MON-FRI
R-2103
HANCHEY (AAF) HEY 112.4
CAIRNS AAF OZR 111.2
DOTHAN DHN 111.6 Ch 53
EUFAULA EUF 109.2
CRESTVIEW CEW 115.9 Ch 106
MARIANNA MAI 114.0
WEEDON
GREENVILLE
Greenville
V20
McGOWIN (Pvt)
V70
V115
TROY
Troy
BANKS
V7
V454
LUVERNE
Luverne
GOSHEN
RUTLEDGE
BRUNDIDGE
Brundidge
CLIO
Clayton
Eufaula
SAWMILL
V159
Cuthbert
BAKERHILL
V241
V241W
WALTER F GEORGE LAKE
GAY FARM
Edison
Arlington
Colquitt
ABBEVILLE
Abbeville
SKIPPERVILLE
1052
BRANTLEY
BLACKWELL
HUNT (ARMY)
ELBA
Elba
New Brockton
SHELL AAF
LOWE AAF
Enterprise
ENTERPRISE
HANCHEY (ARMY)
Fort Rucker
CAIRNS AAF
SKELLY AAF
ANDALUSIA
Andalusia
Opp
Midland City
DOTHAN
Headland
HEADLAND
1549
ALA
GA
Blakely
EARLY CO
GREAT SOUTHERN
Ashford
BAKER SKYTEL
PANSEY
CHATTAHOOCHEE R
Donalsonville
DONALSONVILLE
Samson
Hartford
GENEVA
Geneva
DARLINGTON
Lockhart
Florala
ROME
ALA
FLA
V71W
STAGE (Pvt)
SPRING
ROCKIN H RANCH (Pvt)
MARIANNA
Marianna
JIM WOODRUFF RES
V22
DE FUNIAK SPRINGS
Bonifay
Chipley
CHIPLEY
BOB SIKES

SPECIAL NOTICE

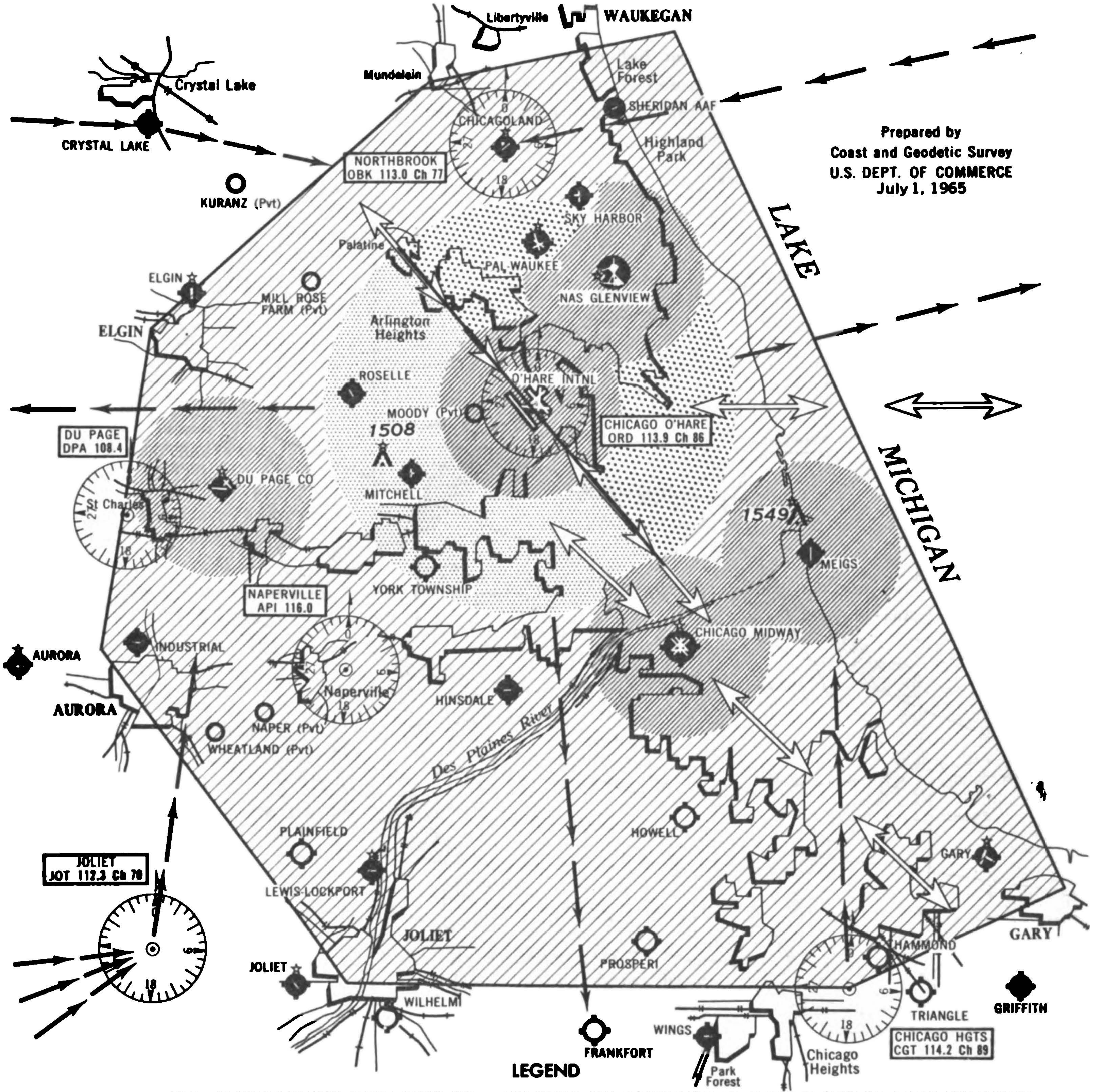
ALABAMA - GEORGIA

Concentrated student training is conducted within the depicted areas. Information and radar advisories on traffic within these areas may be obtained by contacting the Cairns RAPCON located at Fort Rucker on 125.4, 237.5 or 234.4.

CHICAGO TERMINAL AREA NOTICE

THIS MAP SHOWS AREAS OF CONCENTRATED IFR TRAFFIC FOR THE INFORMATION AND GUIDANCE OF PILOTS OPERATING VFR IN THE CHICAGO TERMINAL AREA. VFR PILOTS INTENDING TO OPERATE WITHIN THE AREA ARE ENCOURAGED TO CONTACT CHICAGO RADAR OR TO OPERATE BELOW THE ALTITUDES OCCUPIED BY IFR TRAFFIC.

REFER TO THE LEGEND BELOW TO CORRELATE THE AREAS.


Libertyville
WAUKEGAN
Lake Forest
Mundelein
Crystal Lake
CRYSTAL LAKE
SHERIDAN AAF
CHICAGOLAND
Highland Park
NORTHBROOK OBK 113.0 Ch 77
KURANZ (Pvt)
SKY HARBOR
Palatine
PAL WAUKEE
NAS GLENVIEW
ELGIN
MILL ROSE FARM (Pvt)
ELGIN
Arlington Heights
LAKE
ROSELLE
O'HARE INTNL
MOODY (Pvt)
CHICAGO O'HARE ORD 113.9 Ch 86
1508
DU PAGE DPA 108.4
DU PAGE CO
MITCHELL
St Charles
MICHIGAN
1549
MEIGS
YORK TOWNSHIP
NAPERVILLE API 116.0
CHICAGO MIDWAY
AURORA
INDUSTRIAL
Naperville
HINSDALE
AURORA
NAPER (Pvt)
WHEATLAND (Pvt)
Des Plaines River
PLAINFIELD
HOWELL
JOLIET JOT 112.3 Ch 70
LEWIS LOCKPORT
GARY
JOLIET
HAMMOND
GARY
JOLIET
PROSPERI
WILHELMI
TRIANGLE
GRIFFITH
WINGS
FRANKFORT
CHICAGO HGTS CGT 114.2 Ch 89
Chicago Heights
Park Forest

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
July 1, 1965

LEGEND

▨ AREA OF HEAVY TRAFFIC ABOVE 3500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON 119.2 mc.

AREA OF HEAVY TRAFFIC ABOVE 2500′ MSL – – VFR PILOTS ARE ENCOURAGED TO CONTACT CHICAGO RADAR FOR TRAFFIC ADVISORY SERVICE ON:

▒ 125.0 mc – area east of the extended centerline of O'HARE runway 14R/32L

░ 125.4 mc – area west of the extended centerline of O'HARE runway 14R/32L

CHICAGO RADAR ALSO RECEIVES ON 122.6 mc.

▩ AIRPORT TRAFFIC AREA – – CONTACT THE APPROPRIATE CONTROL TOWER IN ACCORDANCE WITH FAR 91.87.

⇔ APPROACH CORRIDORS

NORMAL ROUTE FOR IFR TRAFFIC ⟶

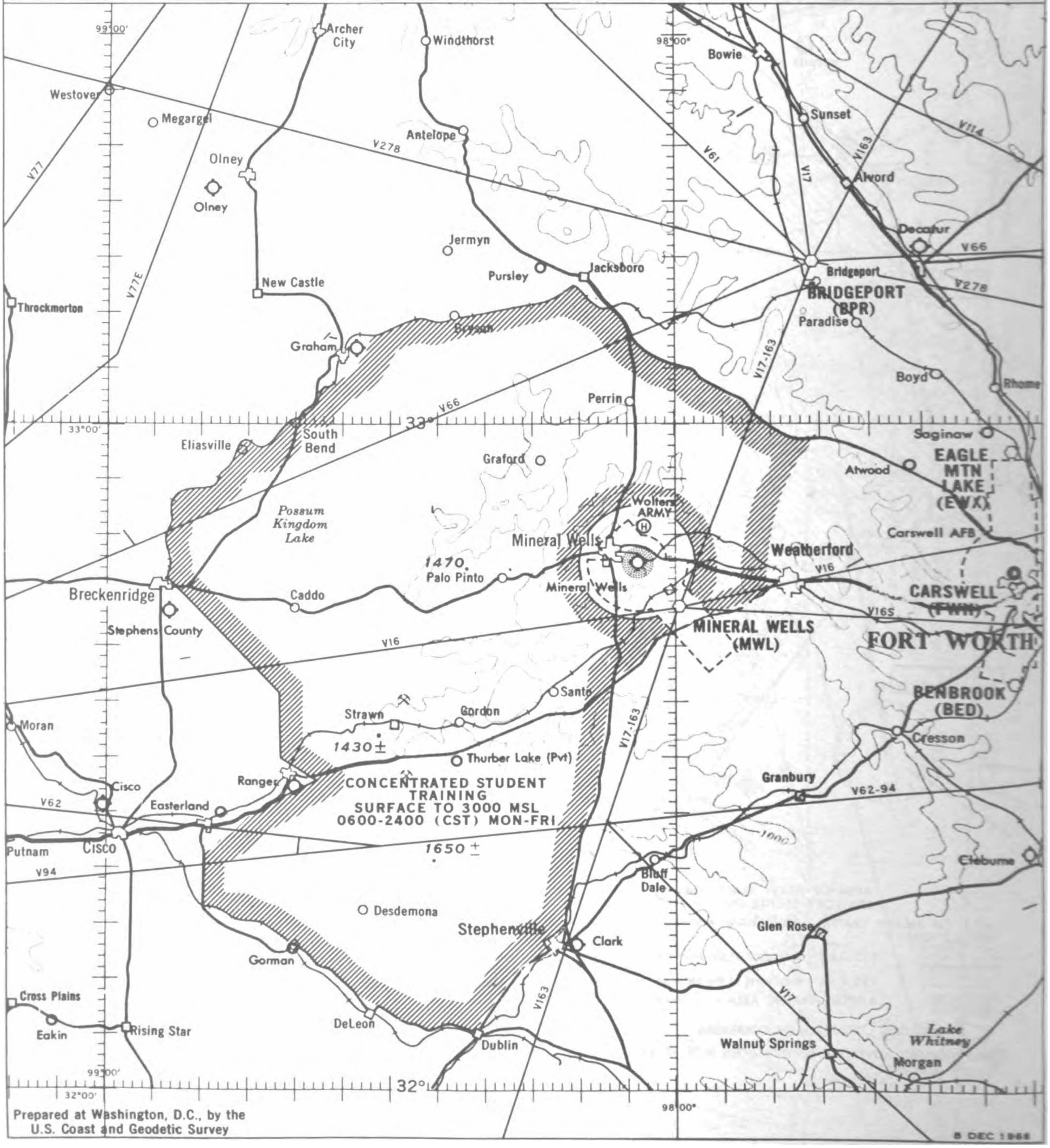
THIS TRAFFIC ADVISORY SERVICE DOES NOT RELIEVE THE PILOTS OF THEIR RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT.

FORT WOLTERS STUDENT TRAINING

SPECIAL NOTICE

TEXAS

Concentrated student helicopter training is conducted within the depicted area between the surface and 3000′ MSL. Training on Federal Airways takes place below minimum enroute altitudes.


CONCENTRATED STUDENT TRAINING SURFACE TO 3000 MSL 0600-2400 (CST) MON-FRI
99°00′
98°00′
33°00′
33°
32°00′
32°
Archer City
Windthorst
Bowie
Westover
Megargel
Sunset
Antelope
V278
V77
V61
V17
V163
V114
Olney
Alvord
Decatur
V66
Jermyn
Pursley
Jacksboro
Bridgeport
BRIDGEPORT (BPR)
Paradise
New Castle
V77E
Throckmorton
Bryson
Graham
V17-163
Boyd
Rhome
Perrin
South Bend
Saginaw
Eliasville
Graford
EAGLE MTN LAKE (EWX)
Atwood
Possum Kingdom Lake
Wolters ARMY
Carswell AFB
Mineral Wells
Weatherford
1470
Palo Pinto
V16
Breckenridge
Caddo
CARSWELL (FWH)
V16S
Stephens County
MINERAL WELLS (MWL)
FORT WORTH
BENBROOK (BED)
Santo
Moran
Strawn
Gordon
Cresson
1430±
Thurber Lake (Pvt)
Cisco
Ranger
Granbury
V62
Easterland
V62-94
Putnam
Cisco
1650 ±
V94
Cleburne
Bluff Dale
1000
Desdemona
Stephenville
Glen Rose
Clark
Gorman
Cross Plains
Eakin
Rising Star
DeLeon
Dublin
Walnut Springs
Lake Whitney
Morgan
99°00′
98°00″

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

8 DEC 1966

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and
2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions has a preceding aircraft which he is to follow, or the airport, in sight he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 118.0 mc. Aircraft not equipped for two-way communication on 118.0 mc should transmit 122.7 mc and listen on 118.0 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Wm. P. Hobby Airport., Houston, Texas

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 119.1 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 120.2 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 124.5 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

Area in which service is provided: Approximately 25 nautical mile radius of Logan International Airport. **Arrival frequencies:** Inbound on 035° through 140° use 126.5 or 281.5 mcs. Inbound on 141° through 034° use 120.6 or 263.1 mcs. Aircraft not so equipped should transmit on 122.5 mcs. and listen on the appropriate frequency. **Departure frequencies:** 119.1 or 343.6 mcs.

Friendship Intl Airport, Baltimore, Maryland

AREA IN WHICH SERVICE IS PROVIDED: Approximately 15 mi radius. **Arrival freq:** In bound on 101° thru 281° use 125.9 mc or 307.9 mc. inbound on 282° thru 100° use 119.7 mc. **Departure freq:** 120.4 or 381.4 mc when advised by tower.

Norfolk Municipal Airport, Virginia

Effective date: May 8, 1966

Area within which service is provided: Approximately 25-mile radius of Norfolk Municipal Airport, exclusive of the Patrick Henry, Langley Air Force Base, Norfolk Naval Air Station and Oceana Naval Air Station airport traffic areas. **Arrival frequencies:** 118.9 MCS or 353.7 MCS. Aircrft not equipped for two-way communications on those frequencies should transmit 122.5 MCS and listen on the appropriate frequency. **Departure frequencies:** 118.5 MCS or 317.6 MCS. VFR flights other than those arriving or departing from the Norfolk Municipal Airport, desiring radar traffic information service, use published approach control or dearture control frequencies. Norfolk Approach Control, workload permitting. will issue radar traffic advisories to VFR aircraft arriving, departing or flying over or in the vicinity of the Langley AFB, NAS Norfolk, Patrick Henry Airport and Felker AAF.

Washington National Airport District of Columbia

Effective date: May 28, 1966

Area in which service is provided: Approximately 20 mile radius of Washington National Airport excluding Prohibited Areas P–56 and the Airport Traffic Areas of Dulles, Andrews AFB and Davison AAF. **Arrival Frequencies:** 119.3 mc or 338.2 mc. Aircraft not equipped for two-way communication on 119.3 mc should transmit on 122.5 mc and listen 119.3 mc. **Departure Frequencies:** 118.3 mc or 306.3 mc when advised by the tower or when 5 miles from the airport, whichever is earlier. **Overflight Frequencies:** Aircraft overflying the Washington area at and below 4000 feet not arriving or departing Washington National Airport, call Washington Traffic Information service (WTIS) on 118.3 mc or 306.3 mc.

Dulles International Airport District of Columbia

Effective date: November 10, 1966

Area in which service is provided: Approximately 20 mile radius of Dulles International Airport excluding Prohibited Areas P–56, Restricted Area R–6608 and the Airport Traffic Areas of Washington National Airport, Andrews AFB and Davison Army Air Field. **Arrival Frequencies:** 126.1 mc or 350.2 mc. Aircraft not equipped for two-way communication on 126.1 mc should transmit on 122.7 mc and listen on 126.1 mc. **Departure Frequencies:** 125.5 mc or 322.5 mc when advised by the tower.

• NEW AND PERMANENTLY CLOSED AIRPORTS

(Including Heliports and Seaplane Bases)

New Airports

The following new airports have been activated and will be included in the next Airport Directory effective May 1967:

Alabama

Monroeville, Monroe County 4 S

California

Franklin, Flying B Ranch 2SE
Fresno, McAfee Farms 11SW
Johannesburg, Red Mountain 0.2NW
Lodoga, Lodoga Meadows Adj NW
Redding, Mercy Hospital Heliport 1 S
Riverbank, Fountains 2.5 SE
Yreka Airpark 1.2 N

Idaho

Kemaina, Laidlaw Carrols Emgcy Strip 14 NNE
Martin, Hollow Top Emgcy Strip 13.3 S
Minidoka, Bear Trap Emgcy Strip 16.8 NNE

Illinois

Chicago, Rose Packing Company Inc Heliport In City
Valmeyer, J and R Enterprises 2 NW

Iowa

Fairfield Muni 3 N

Kansas

Burdett, Burdett Community Arpt Inc 2.5 N
Wakeeney, Galloway 4.5 NE

Maine

Eliot, Littlebrook Arpk 2 ESE

Maryland

Westminster, Clearview Arpk 8 S

Michigan

Troy, Jim Robbins 3.5 SSE

Minnesota

Belle Plaine 3 N

Missouri

Smithville, Dougs Smithville 3 NE
Van Buren, Big Spring State Park 2.8 SE

New York

Degrasse, Moores 2 N
Hancock Muni 2 N
Lakeville, Hannas Acres 0.5 SW

North Carolina

Fountain, Fountain Bros 0.5 N
Fuquay-Angier 4 SE
Scotland Neck 3 N

Ohio

Canton, Martin Fld 1 NE

Oklahoma

Gage Muni Heliport 2 SW
Hollis Muni Adj SW

Oregon

Brownsville, Pioneer Villa 3.5 W
Creswell 0.5 NNE
Culver, Lake Chinook 5 W

Pennsylvania

Bethlehem-LVIP Heliport 4 E

Texas

Avinger, McKenzie Fld 7 SW
Bronte Adj NW
Robert Lee, Willcockson Ranch Strip 6 NW
Romayor, F.R. Duke Farm 2 N
Sequin, Chaparral Country Club
Woodson, Dickie Fld 1 W

Puerto Rico

Dorado, Dorado Beach 2 W

• Closed and Abandoned Airports

The following airports have been abandoned (a) or permanently closed to public use (c) and should be deleted from charts and records:

California
Kennedy Meadows, Sacator In City (c)

Colorado
Leadville, Pan-Ark Lodge 8SSW (a)

Florida
Lake Wales, Chalet Suzanne Air Strip 4 NE (c)

Georgia
McDuffie Co. 4 N (c)

Illinois
Kewanee Airpark 5 NE (a)
Ladd Field 2 N (a)

Kansas
Zenith, Hayes Port 1 SE (a)

Maryland
Lakeshore, Mountain Road 1 E of Jacobsville (c)

Michigan
Ypsilanti, McEnnan 2 S (a)

Minnesota
Twin Valley 1 W (c)

Mississippi
Gillsburg, Williams 2 SW (a)
Water Valley, Lakewood 2 S (a)

Missouri
Charleston, County 2 W (a)
Mt. Vernon, Sanatorium 1 NW (c)

Nebraska
Valentine, Fred G. Perrett Ranch 17 SW (c)
Springview, Patterson 4.4 NW (c)

New York
Greenville, Rainbow 1 NE (c)

North Carolina
Wade, Gordon 2 E (a)

Oklahoma
Bristow Muni 1 NW (a)

Oregon
Pendleton, Community Meml Hospital Heliport 1.3 SW (c)

Pennsylvania
Pittsburgh Heliport cntr of city (a)

South Carolina
McCormick 2 NE (a)
Manning, Mercy Air Strip 8 S (a)

South Dakota
Centerville, Overgaard 6 NE (c)

Texas
Hale Center, Laney Farm 5.7 NNW (c)
Hillsboro, Triplett Ranch 5 SW (c)
Lampass County 3 N (c)
Pleasanton, Haverlah 1 S (a)
Tilton, Pike 2 NE (c)

Washington
Connell 1 S (a)

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

• GEORGIA

MACON "MCN" VORTAC SHUTDOWN

Dec 13 VOR will be shutdown until aprxly Dec 14. For substitute route structure during shutdown use the following.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V35....	MCN VORTAC to AHN VORTAC	Tmpry MCN Int to AHN VORTAC via AHN VORTAC 192 rad	6,000	17,500
V53....	MCN VORTAC to AGS VORTAC	Tmpry MCN Int to AGS VORTAC via AGS VORTAC 238 rad	7,500	17,500
V5W/ V164	DBN VOR to MCN VORTAC	DBN VOR to Tmpry MCN Int via DBN VOR 292 rad	2,000	17,500
V35....	ABY VOR to MCN VORTAC	ABY VOR to Tmpry MCN INT via ABY VOR 024 rad	5,500	17,500
V35W..	Montezuma Int to MCN VORTAC	Tmpry Montezuma Int to Temp MCN Int via MCN LCZR	2,000	17,500
V53/ V164	CSG VOR to MCN VORTAC	CSG VOR to Tmpry MCN Int via CSG VOR 085 rad	5,000	17,500
V243E.	MCN VORTAC to Yatesville Int	None		
V5W...	MCN VORTAC to to McDonough Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
MCN VORTAC.................	Tmpry MCN Int—VNA VORTAC 344 rad and DBN VOR 292 rad	2,000
Loraine Int..................	VNA VORTAC 340 rad and CSG VOR 073 rad	3,000
Wayside Int..................	AHN VORTAC 192 rad and ATL VORTAC 114 rad	2,000
Cary Int....................	DBN VOR 292 rad and VNA VORTAC 019 rad	2,000
Fort Valley Int...............	ABY VOR 024 rad and VNA VORTAC 285 rad	2,000
Montezuma Int...............	VNA VORTAC 285 rad and MCN LCZR	2,000

All other ints based on MCN VORTAC unusable.

ILLINOIS

POLO "PLL" VORTAC SHUTDOWN

Dec 5 VOR will be shutdown until aprxly Dec 9. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V84/ 172	ORD VOR to Malta Int	ORD VOR to Malta Int via ORD VOR 267 rad	3,000	17,500
V172...	Malta Int to Creston Int	Malta Int to Creston Int via ORD VOR 267 rad	5,000	17,500
	Creston Int to PLL VOR	Creston Int to PLL Int via ORD VOR 267 rad	7,000	17,500
V172...	Lisbon Int to Charlotte Int	Lisbon Int to Charlotte Int via CID VOR 082 rad	4,000	17,500
	Charlotte Int to PLL VOR	Charlotte Int to PLL Int via CID VOR 082 rad	9,000	17,500
V158...	Savanna Int to PLL VOR	Savanna Int to PLL Int via DBQ VOR 110 rad	3,300	17,500
V127...	BDF VOR to PLL VOR	BDF VOR to PLL Int via BDF VOR 359 rad	3,500	17,500
	RFD VOR to PLL VOR	RFD VOR to PLL Int via RFD VOR 216 rad	3,300	17,500

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
PLL VOR	Tmpry PLL Int—RFD VOR 216 rad and DBQ VOR 110 rad	3,300
Malta Int	RFD VOR 133 rad and ORD VOR 267 rad	3,000
Creston Int	RFD VOR 150 rad and ORD VOR 267 rad	5,000
Charlotte Int	CID VOR 082 rad and CVA VOR 318 rad	4,000
Thomson Int	CID VOR 082 rad and CVA VOR 052 rad	9,000
Sterling Int	BDF VOR 348 rad and CVA VOR 084 rad	2,700
Donna Int	CVA VOR 134 rad and MLI ILS lczr E crs	2,600
Freeport Int	RFD VOR 273 rad and JVL VOR 236 rad	2,700

• NEW MEXICO

SOCORRO "ONM" VORTAC SHUTDOWN

Dec 6, VORTAC will be shut down thru Dec 8. For substitute route structure during shutdown use flwg:

Low Altitude

Airways	Existing Airway	Substitute Routes	MEA	MAA
V19	TCS VORTAC to ONM VORTAC	TCS VORTAC to ABQ VORTAC via TCS VORTAC 015 rad and ABQ VORTAC 171 rad	9,500	17,000
V19E/19W	ONM VORTAC to ABQ VORTAC	None		
V264	SJN VORTAC to OMN VORTAC	None		
V264	ONM VORTAC to CNX VOR	None		

Existing Reporting Point	Temporary Reporting Point
ONM VORTAC	None

Jet Routes

Airways	Existing Route	Substitute Route	MEA	MAA
J74	SJN VORTAC via ONM VORTAC to TXO VORTAC	SJN VORTAC to TXO VORTAC via SJN VORTAC 057 rad and ABQ VORTAC 240 rad to ABQ VORTAC thence via J-72 to TXO VORTAC	FL 180	9FL 450
J104	SSO VORTAC via OMN VORTAC to LVS VORTAC	SSO VORTAC to LVS VORTAC via SSO VORTAC 045 rad and TCS VORTAC 226 rad to TCS VORTAC thence via TCS VORTAC 359 rad and LVS VORTAC 214 rad to LVS VORTAC	FL 180	FL 450

Existing Reporting Point	Temporary Reporting Point
ONM VORTAC	None

OHIO

BRIGGS "BSV" VORTAC SUBSTITUTE ROUTES

Due to unusable sectors, following substitute route is efctv immediately

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V40,75	Sharon int to BSV VOR	Sharon Int to tmpry BSV Int via CLE VOR 141 rad	5,000	17,500
V8,75,	BSV VOR to Kilgore Int	Tmpry BSV Int to Kilgore Int via HLG VOR 310 rad	3,000	17,500
BSV VORTAC		Tmpry BSV Int—CTW VOR 007 rad and HLG VOR 310 rad		3,100

• SOUTH DAKOTA

SIOUX FALLS "FSD" VOR SHUTDOWN

Dec 20, VOR will be shut down thru Dec 22. For substitute route structure during shutdown use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V16	SUX VOR to FSD VOR	SUX VOR to Tmpry FSD Int via SUX VOR 334 rad	7,000	17,500
	FSD VOR to HON VOR	Tmpry FSD Int to HON VOR via HON VOR 115 rad	6,300	17,500
V16W	FSD VOR to HON VOR	None		
V16E	SUX VOR to FSD VOR	None		
V148	FSD VOR to RWF VOR	Tmpry FSD Int to RWF VOR via RWF VOR 229 rad	7,000	17,500
	Tndall Int to FSD VOR	Tyndall Int to Tmpry FSD Int via ONL VOR 039 rad	11,000	17,500
V148S	FSD VOR to RWF VOR	None		
V181	FSD VOR to Oakwood Int	Tmpry FSD Int to Oakwood Int via ATY VOR 160 rad	6,000	17,500
	YKN VOR to FSD VOR	YKN VOR to Tmpry FSD Int via YKN VOR 022 rad	6,000	17,500
V181W	YKN VOR to FSD VOR	None		
V170	FSD VOR to OTG VOR	Tmpry FSD Int to OTG VOR via OTG VOR 263 rad	6,000	17,500
V120	MCW VOR to FSD VOR	None		
	PIR VOR to FSD VOR	None		

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
FSD VOR	Tmpry FSD Int—ATY VOR 160 RAD and OTG VOR 263 rad	6,000
Sherman Int	RWF VOR 229 rad and OTG VOR 274 rad	7,000
Canton Int	SUX VOR 334 rad and OTG VOR 239 rad	6,700
Bigelow Int	None	
Canova DME Fix	None	
Parker Int	None	
Renner Int	None	
Lennox Int	None	
Russel Int	None	
Bestland Int	None	
Baltic Int	None	

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J30	ONL VORTAC to FSD VORTAC	ONL VORTAC to Tmpry FSD Int via ONL VORTAC 039 rad	FL 180	450
	FSD VORTAC to MSP VORTAC	Tmpry FSD Int to MSP VORTAC via MSP VORTAC 234 rad	FL 270	450
J16/90	DPR VORTAC to FSD VORTAC	DPR VORTAC to FSD RBN via DPR VORTAC 097 rad and 286 brg from FSD RBN	FL 180	450
	FSD VORTAC to MCW VORTAC	Tmpry FSD Int to MCW VORTAC via MCW VORTAC 278 rad	FL 240	450
J82	RAP VORTAC to FSD VORTAC	RAP VORTAC to FSD RBN via RAP VORTAC 079 rad and 269 brg from FSD RBN	FL 180	450
	FSD VORTAC to FOD VORTAC	Tmpry FSD Int to FOD VORTAC via FOD VORTAC 294 rad	FL 180	450

Existing Reporting Point	Temporary Reporting Point	MRA
FSD VORTAC	Tmpry FSD Int—ONL VORTAC 039 rad and FOD VORTAC 294 rad	FL 180
	FSD RBN	FL 180

SPECIAL USE AIRSPACE

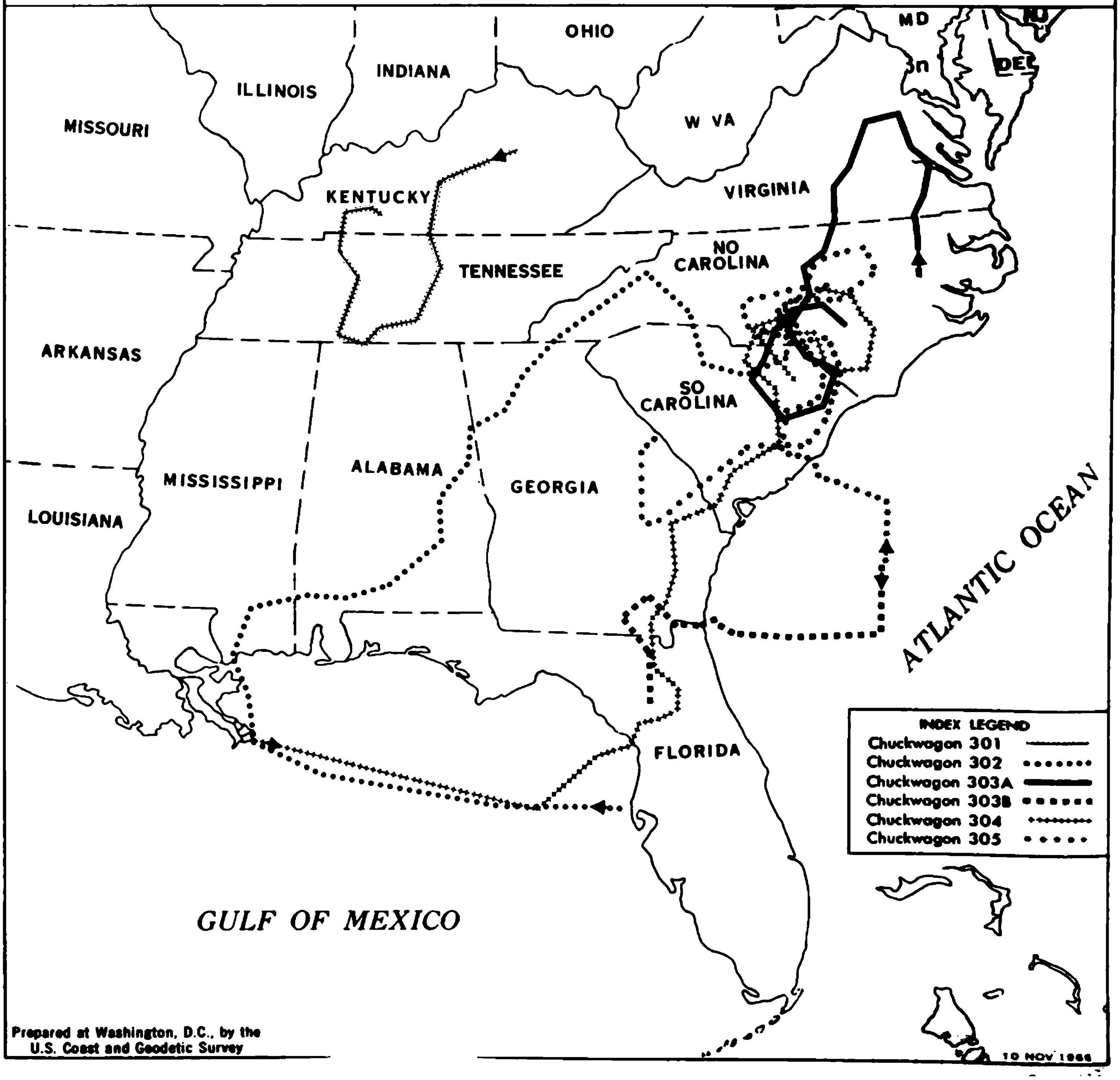
• INDEX OF CHUCKWAGON ROUTES

"CHUCKWAGON" LOW-LEVEL ROUTES

"The USAF will conduct 20 low-level navigation evaluation flights during the period November 14, 1966 through December 15, 1966. These aircraft will operate in both VFR and IFR weather conditions along routes nicknamed "CHUCKWAGON" with a numerical designation in the 300 series. EXAMPLE: "CHUCKWAGON 302." Operations are contained within nine nautical miles on either side of the center line, except that on the VFR segments they will be contained within four nautical miles of the center line. When route width shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts, except that on some segments when the weather conditions are 3000' ceiling and five mile visibility or better, aircraft may descend to an altitude of not less than 500' above the terrain. Flights may be conducted only during the hours specified for each route. The current operational status of a particular route may be obtained by calling a Flight Service Station near the route. Revised information is underlined. Scheduling Agency: Hq USAF, AFXPDRC/TB, Wash., D. C. 20330."

ROUTE LEGEND

------ Entry Tracks
●→ Positions specified in Text
▨ VFR & Contour Altitudes (3000 Ceil-5 Mi Vis)
- → - Climb out Tracks
4000 IFR Altitude


MD
DEL
NJ
OHIO
INDIANA
ILLINOIS
MISSOURI
W VA
VIRGINIA
KENTUCKY
NO CAROLINA
TENNESSEE
ARKANSAS
SO CAROLINA
MISSISSIPPI
ALABAMA
GEORGIA
LOUISIANA
ATLANTIC OCEAN
FLORIDA
GULF OF MEXICO
INDEX LEGEND
Chuckwagon 301 ———
Chuckwagon 302 ••••••
Chuckwagon 303A ━━━
Chuckwagon 303B ■■■■■■
Chuckwagon 304 ·+++++·
Chuckwagon 305 • • • • •
10 NOV 1966

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

KENTUCKY/TENNESSEE/ALABAMA

CHUCKWAGON 301

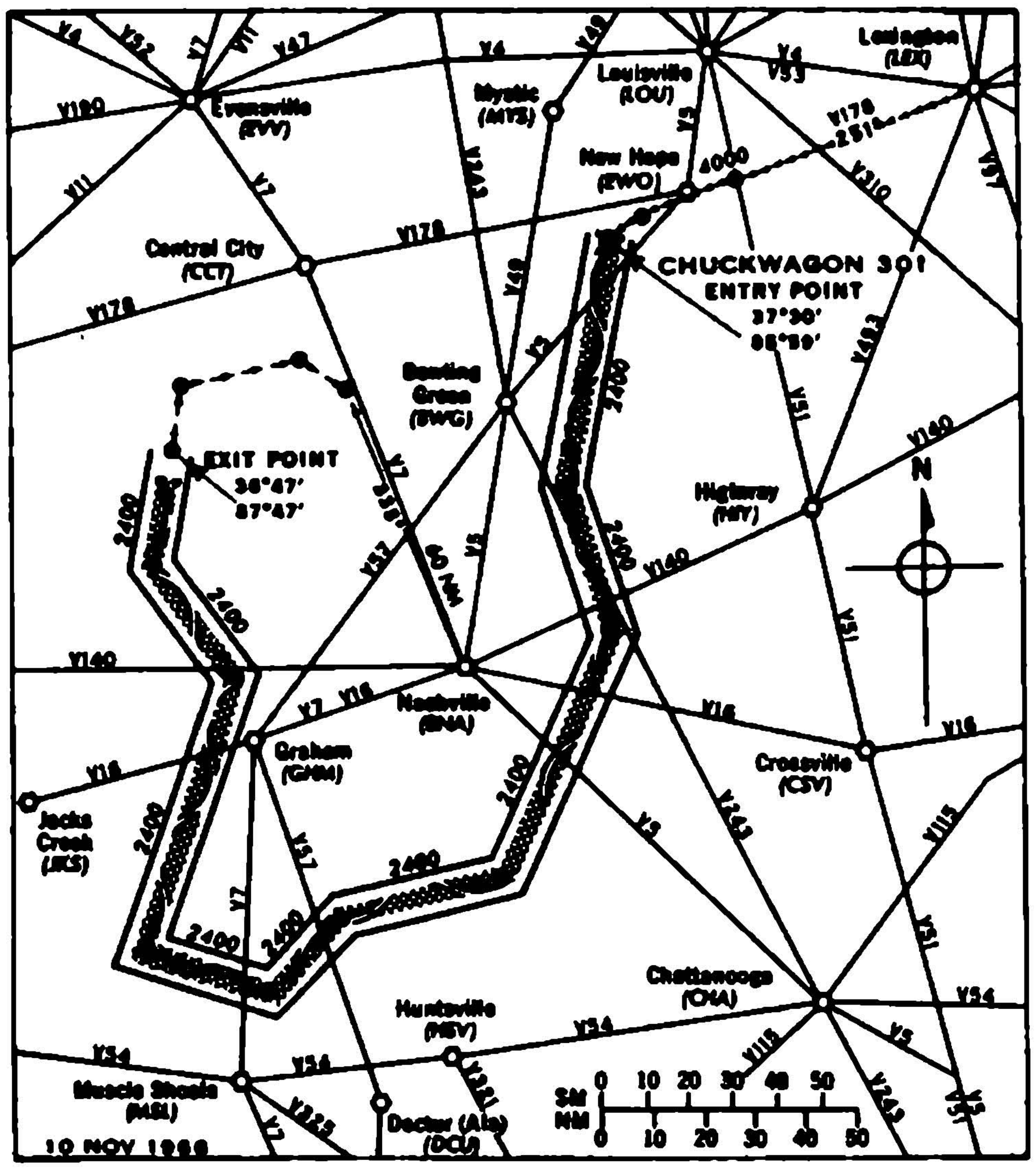
Effective November 14, 1966

Aircraft shall cross the Lexington, Kentucky VORTAC at FL 230 or as assigned, then proceed southwest on the Lexington VORTAC 251° radial descending so as to cross 37°41'30''N, 85°28'W at 4000' MSL; maintain 4000' MSL direct New Hope, Ky. VOR; turn left direct 37°33'30''N, 85°51'W at 4000' MSL; descend to 2400' MSL direct to the route entry point 37°30'N, 85°59'W, maintain 2400' MSL direct 36°41'N, 86°10'W, maintain 2400' MSL direct 36°13'N, 85°59'W, maintain 2400' MSL direct 35°24'30'' N, 86°26'W, maintain 2400' MSL direct 35°17'N, 87°05'W, maintain 2400' MSL direct 35°01'N, 87°20'W, maintain 2400' MSL direct 35°09'N, 87°52'W, maintain 2400' MSL direct 36°02'30''N, 87°30'30''W, maintain 2400' MSL direct 36°24'N, 87°51'30''W, maintain 2400' MSL direct 36°47'N, 87°47'W. After exiting the route at 36°47'N, 87°47'W aircraft shall climb direct 37°00'N, 87°45'W, direct 37°06'N, 87°15'W, direct 37°00'N, 87°05'W (Nashville, Tenn. VORTAC 335/60) crossing 37°00'N, 87°05'W at FL 190 or as assigned. When crossing 37°00'N, 87°45'W pilot will report Chuckwagon 301 to Memphis ARTCC on 381.4 or 128.7 mc.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR bewteen the IFR altitudes (2400' MSL) and 500' above the immediate terrain between the following points: From 37°30'N, 85°59'W to 36°41'30"N, 87°48'W.

Route Width—The entire IFR low level route is reduced to 4 NM either side of centerline. The entire VFR contour route width is reduced to 2 NM either side of centerline.

Hours of Operation—0000Z to 1200Z one day each week.

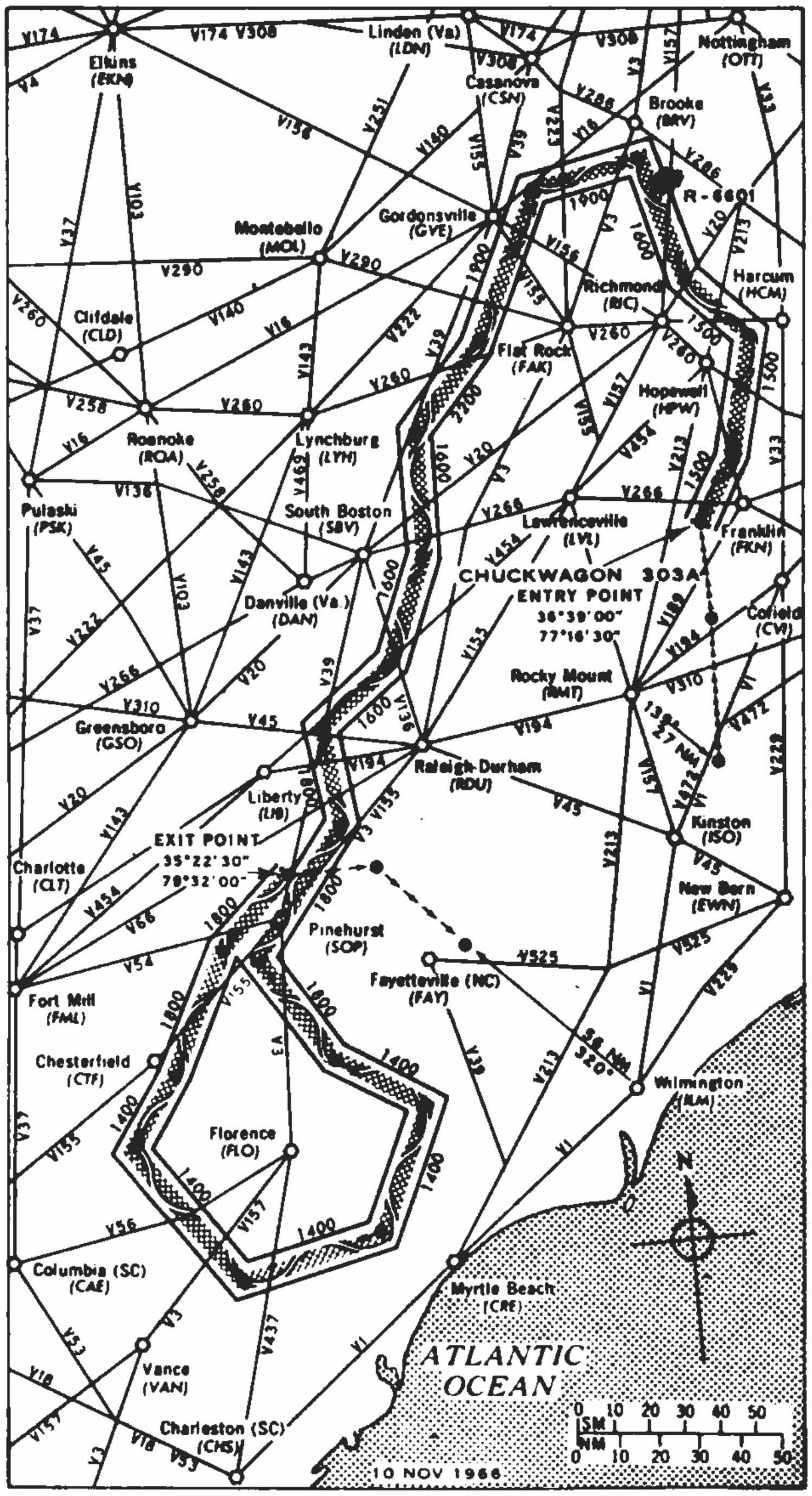

Lexington (LEX)
Louisville (LOU)
Mystic (MYS)
New Hope (EWO)
4000
V178 251°
Evansville (EVV)
Central City (CCY)
Bowling Green (BWG)
CHUCKWAGON 301 ENTRY POINT 37°30' 85°59'
EXIT POINT 36°47' 87°47'
Highway (HHY)
N
60 NM
Nashville (BNA)
Graham (GHM)
Jacks Creek (JKS)
Crossville (CSV)
2400
Chattanooga (CHA)
Huntsville (HSV)
Muscle Shoals (MSL)
Decatur (Ala) (DCU)
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
10 NOV 1966

NORTH CAROLINA/VIRGINIA/SOUTH CAROLINA

CHUCKWAGON 303A

Effective November 14, 1966

Aircraft shall cross 35°40'N, 77°18'30''W (Rocky Mount, N.C. VORTAC 139/27) at FL 190 or as assigned by ARTCC and begin descent direct 36°16'N, 77°15'W, then turn left continuing descent so as to cross the route entry point at 36°39'N, 77°16'30''W at 1500' MSL, then at 1500' MSL, then at 1500' MSL direct 36°55'N, 77°04' W, then at 1500' MSL direct 37°24'30''N, 76°53'30''W, then at 1500' MSL direct 37°40'N, 77°12'30''W, then climb to 1600' MSL direct 38°11'N, 77°22'30''W, then climb to 1900' MSL direct 38°06'30''N, 77°57'30''W, then at 1900' MSL direct 37°29'N, 78°18'30''W, then climb to 2200 MSL direct 37°09'30''N, 78°40'30''W then descend to 1600' MSL direct 36°38'30''N, 78°41'W, then at 1600' MSL direct 36°13'N, 78°55'W, then at 1600' MSL direct 35°58'30''N, 79°17'30''W, then climb to 1800' MSL direct 35°33'30''N, 79°14'30''W, then at 1800' MSL direct


Elkins (EKN)
Linden (Va) (LDN)
Casanova (CSN)
Nottingham (OTT)
Brooke (BRV)
R-6601
Montebello (MOL)
Gordonsville (GVE)
Richmond (RIC)
Harcum (HCM)
Clifdale (CLD)
Flat Rock (FAK)
Hopewell (HPW)
Roanoke (ROA)
Lynchburg (LYH)
Pulaski (PSK)
South Boston (SBV)
Lawrenceville (LVL)
Franklin (FKN)
CHUCKWAGON 303A ENTRY POINT 36°39'00" 77°16'30"
Danville (Va.) (DAN)
Rocky Mount (RMT)
Cofield (CVI)
Greensboro (GSO)
Raleigh-Durham (RDU)
Liberty (LIB)
Kinston (ISO)
Charlotte (CLT)
EXIT POINT 35°22'30" 79°32'00"
New Bern (EWN)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Fort Mill (FML)
Chesterfield (CTF)
Wilmington (ILM)
Florence (FLO)
N
Columbia (SC) (CAE)
Myrtle Beach (CRE)
ATLANTIC OCEAN
Vance (VAN)
Charleston (SC) (CHS)
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
10 NOV 1966

CHUCKWAGON 302 AND 304 FOLLOW CHUCKWAGON 305

35°02'30''N, 79°43'30''W, then at 1800' MSL direct 34°36' N, 79°23'W, then descend to 1400' MSL direct 34°23'N, 78°56'W, then at 1400' MSL direct 33°51'30''N, 79°13'W, then at 1400' MSL direct 33°42'30''N, 79°56'30''W, then at 1400' MSL direct 34°17'N, 80°26'W, then at 1400' MSL direct 34°35'N, 80°12'W, then climb to 1800' MSL direct 35°05'N, 79°54'30''W, then at 1800' MSL direct route exit point at 35°22'30''N, 79°32'W, then turn right climbing direct 35°22'N, 79°05'W, then turn right continuing climb so as to cross 35°01'N, 78°40'W (Wilmington, N.C. VORTAC 320/56) at FL 190. When passing 37°29'N, 78°18'30''W pilot will report "CHUCKWAGON 303" to Richmond approach control. When passing 36°13'N, 78°55'W pilot will report "CHUCKWAGON 303" to Raleigh-Durham approach control.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 36°39'N, 77°16'30''W to 35°22'30''N, 79°32'W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline. The entire VFR route width is reduced to 2 NM either side of centerline. Aircraft operating IFR or VFR shall remain clear of area R-6601.

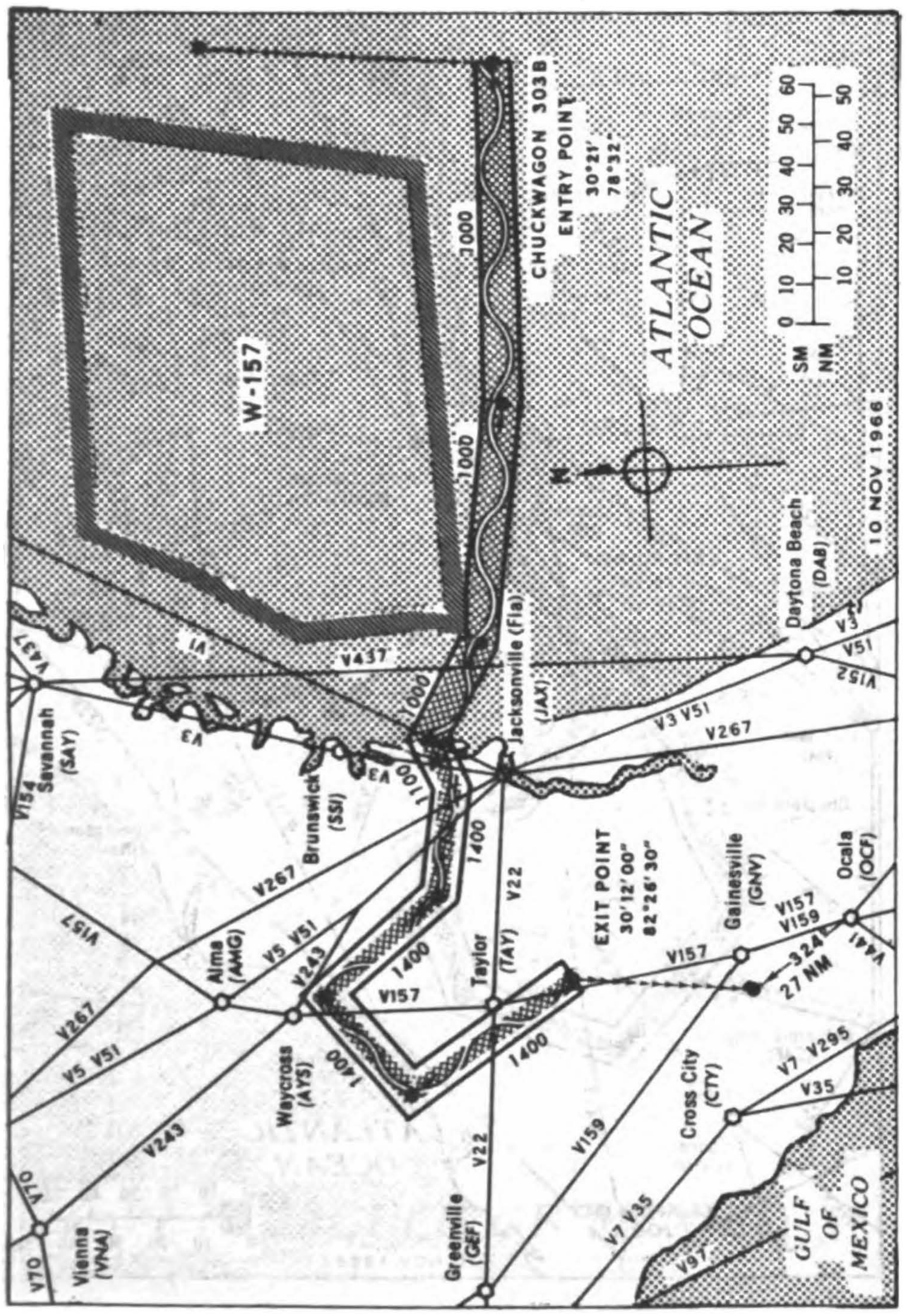
Hours of Operation—0000Z to 1200Z one day each week.

FLORIDA/GEORGIA

CHUCKWAGON 303B

(This is a continuation of Route 303 A)

Effective November 14, 1966


CHUCKWAGON 303B
ENTRY POINT
30°21'
78°32'
ATLANTIC OCEAN
W-157
1000
1100
1400
SM 0 10 20 30 40 50 60
NM 0 10 20 30 40 50
10 NOV 1966
Daytona Beach (DAB)
Jacksonville (Fla) (JAX)
Savannah (SAV)
Brunswick (SSI)
Alma (AMG)
Waycross (AYS)
Taylor (TAY)
EXIT POINT
30°12'00"
82°26'30"
Gainesville (GNV)
Ocala (OCF)
324°
27 NM
Cross City (CTY)
Greenville (GEF)
Vienna (VNA)
GULF OF MEXICO
V437
V3
V51
V267
V157
V159
V5
V243
V22
V295
V35
V97
V7
V70
V154

Aircraft shall cross 31°26'N, 78°23'W at FL 310 or as assigned by ARTCC; then descend direct so as to cross the route entry point at 30°21'N, 78°32'W at 1000' MSL; then at 1000' MSL direct 30°23'N, 80°00'W, then at 1000' MSL direct 30°30'N, 81°00'W, then at 1000' MSL direct 30°43'N, 81°25'W, then climb to 1100' MSL direct 30°38'30''N, 81°37'W, then climb to 1400' MSL direct 30°41'30''N, 82°04'30''W, then at 1400' MSL direct 31°08'N, 82°30'W, then at 1400' MSL direct 30°48'30''N, 82°55'30'' W, then at 1400' MSL direct to route exit point at 30°12' N, 82°26'30''W, then turn right climbing to 5000' MSL (Request FL 180 from ARTCC) direct to 29°32'N, 82°31'W (Ocala, Fla. VORTAC 324/27).

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 30°21'N, 78°32'W to 30°12'N, 82°26'30''W.

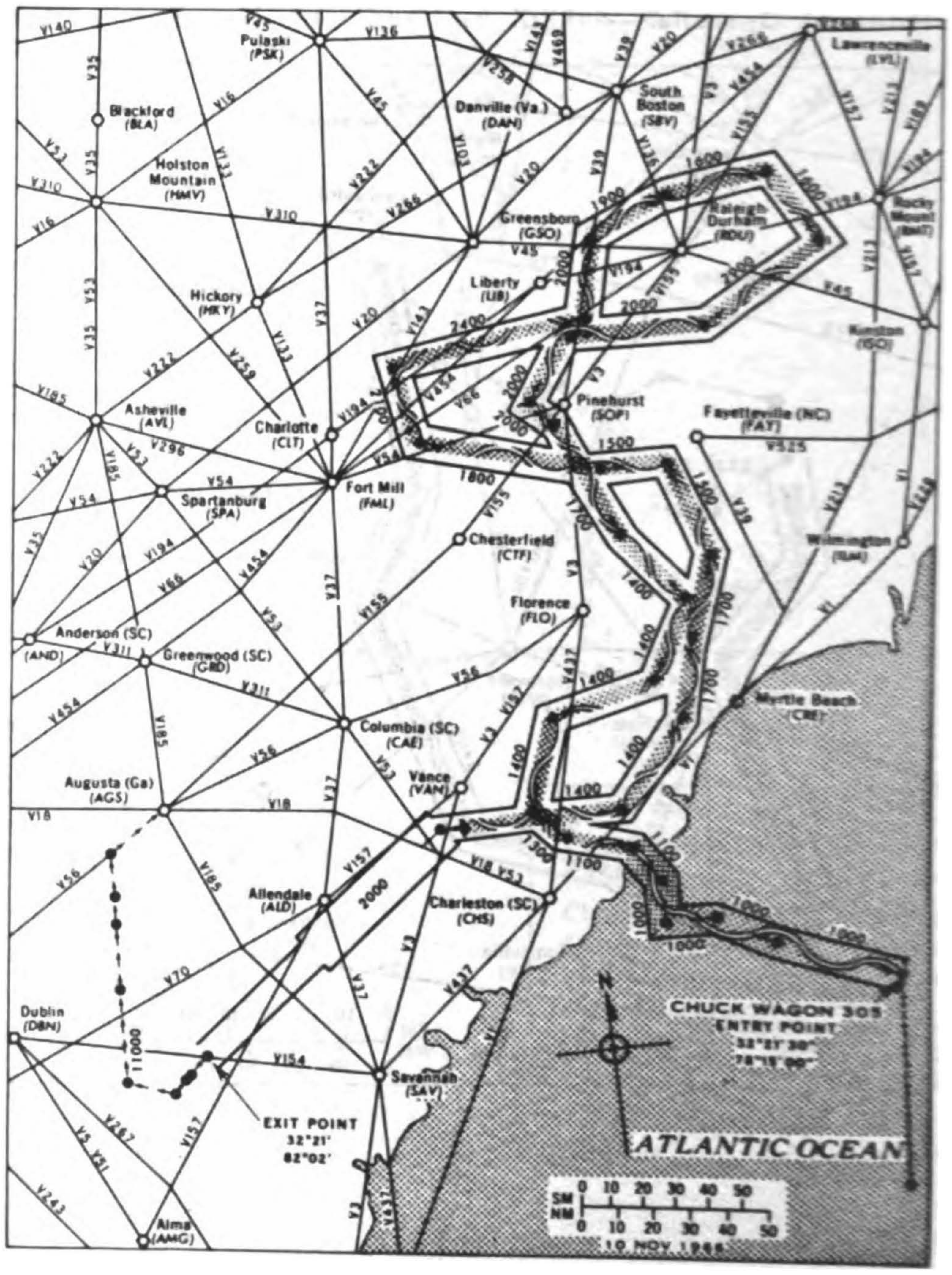
Route Width—The entire IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 4 NM either side of centerline from 30°21'N, 78°32'W to 30°43'N, 81°25'W and 2 NM either side of centerline from 30°43'N, 81°25'W to 30°12'N, 82°26'30'' W. Aircraft operating IFR or VFR shall remain clear of Area W-157.

Hours of Operation—0000Z to 1400Z one day each week.

SOUTH CAROLINA/NORTH CAROLINA/GEORGIA

CHUCKWAGON 305

Effective November 14, 1966


Pulaski (PSK)
Blackford (BLA)
Holston Mountain (HMV)
Danville (Va.) (DAN)
South Boston (SBV)
Lawrenceville (LVL)
Greensboro (GSO)
Raleigh Durham (RDU)
Rocky Mount (RMT)
Liberty (LIB)
Hickory (HKY)
Kinston (ISO)
Asheville (AVL)
Charlotte (CLT)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Fort Mill (FML)
Spartanburg (SPA)
Chesterfield (CTF)
Wilmington (ILM)
Florence (FLO)
Anderson (SC) (AND)
Greenwood (SC) (GRD)
Myrtle Beach (CRE)
Columbia (SC) (CAE)
Vance (VAN)
Augusta (Ga) (AGS)
Allendale (ALD)
Charleston (SC) (CHS)
Dublin (DBN)
Savannah (SAV)
Alma (AMG)
EXIT POINT
32°21'
82°02'
CHUCK WAGON 305
ENTRY POINT
32°21'30"
78°15'00"
ATLANTIC OCEAN
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
10 NOV 1966
1000
1100
1400
1500
1600
1700
1800
1900
2000
2400

Aircraft shall cross 31°22'N, 78°23'W at FL 190 or as assigned by ARTCC; then descend direct so as to cross the route entry point at 32°21'30''N, 78°15'W at 1000' MSL; then at 1000' MSL direct 32°34'N, 78°52'W, then at 1000' MSL direct 32°43'30''N, 79°09'30''W, then at 1000' MSL direct 32°44'N, 79°25'30''W, then at 1000' MSL direct 32°56'N, 79°25'30''W, then climb to 1100' MSL direct 33°06'30''N, 79°33'30''W, then at 1100' MSL direct 33°11'N, 79°53'W, then climb to 1300' MSL direct 33°20'30''N, 80°04'W, then climb to 1400' MSL direct 33°44'N, 79°53'30''W, then at 1400' MSL direct 33°51'30''N, 79°17'30''W, then at 1400' MSL direct 34°14'30''N, 79°01'30''W, then at 1400' MSL direct 34°34'30''N, 79°21'W, then climb to 1700' MSL direct 35°07'N, 79°38'30''W, then climb to 2000' MSL direct 35°13'N, 79°47'W, then at 2000' MSL direct 35°33'N, 79°31'W, then at 2000' MSL direct 35°29'30''N, 78°43'30''W then climb to 2900' MSL direct 35°49'N, 78°02'W, then descend to 1600' MSL direct 36°11'30''N, 78°15'30''W, then at 1600' MSL direct 36°08'30''N, 78°49'30''W, then climb to 1900' MSL direct 35°59'N, 79°16'W, then climb to 2000' MSL direct 35°37'N, 79°24'30''W, then climb to 2400' MSL direct 35°29'30''N, 80°28'30''W, then descend to 2100' MSL direct 35°08'30''N, 80°26'W, then descend to 1800' MSL direct 34°53'N, 79°25'W, then descend to 1500' MSL direct 34°52'30''N, 79°03'30''W, then at 1500' MSL direct 34°26'30''N, 78°52'30''W, then climb to 1700 MSL direct 34°04'30''N, 79°03'W, then at 1700' MSL direct 33°41'30''N, 79°10'W, then descend to 1400' MSL direct 33°17'30''N, 79°35'W, then at 1400' MSL direct 33°17'30''N, 80°28'W, then climb so as to cross and intercept OB–17 "WALNUT GROVE" at 33°17'30''N, 80°35'W at 2000' MSL. Then at 2000' MSL direct to route exit at 32°21'N, 82°02'W, then climb to 3000' MSL direct 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4000' MSL; cross 32°12'N, 82°15'W at 6000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30''W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga. VORTAC. When crossing 35°29'30''N, 80°28'30''W the pilot will report "CHUCKWAGON 305" to Charlotte approach control on 257.8 MC.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' MSL above the immediate terrain between the following points: From 32°21'30''N, 78°15'W to 33°17'30''N, 80°28'W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline except from 33°17'30''N, 80°35'W to 32°47'N, 81°23'W, the route width is reduced to 6 NM either side of centerline. The VFR route width is reduced to 4 NM either side of centerline from 32°21'30''N, 78°15'W to 33°06'N, 79°33'30''W; and 2 NM either side of centerline from 33°06'N, 79°33'30''W to 33°17'30''N, 80°28'W.

Hours of Operation—0000Z to 1400Z one day each week.

FLORIDA/LOUISIANA/MISSISSIPPI/ALABAMA/ GEORGIA/TENNESSEE/NORTH CAROLINA/ SOUTH CAROLINA

CHUCKWAGON 302

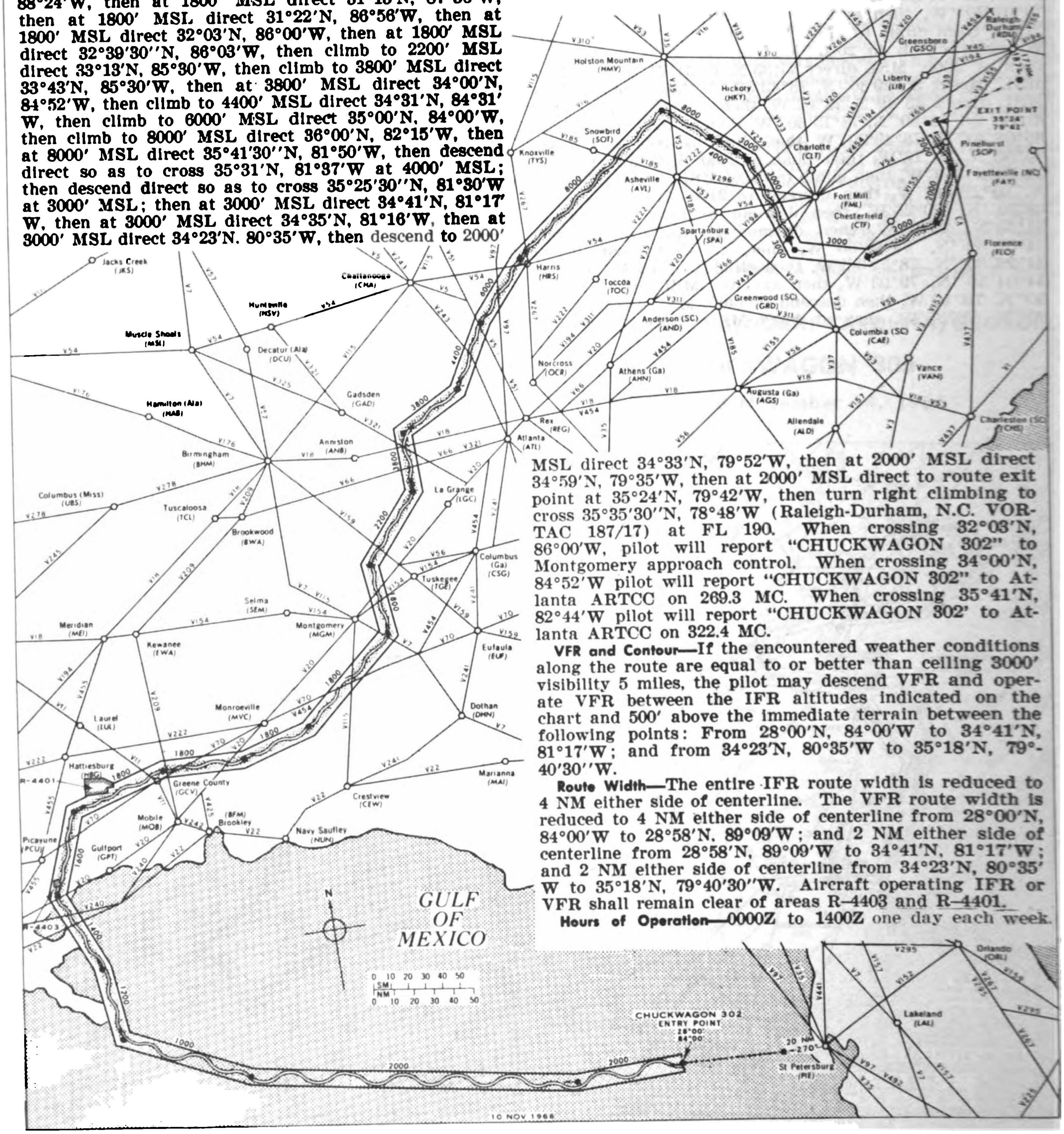
Effective November 14, 1966

Aircraft shall cross St. Petersburg, Fla. VORTAC at FL 180 or as assigned by ARTCC then direct 27°55'N, 83°04'W (St. Petersburg VORTAC 270/20) at FL 180 or as assigned; then descend so as to cross route entry point at 28°00'N, 84°00'W at 2000' MSL; then at 2000' MSL direct 28°00'N, 85°00'W, then at 2000' MSL direct 28°30'N, 88°00'W, then descend to 1000' MSL direct 28°58'N, 89°09'W, then climb to 1200' MSL direct 29°35'N, 89°15'W, then climb to 1400' MSL direct 30°15'N, 89°35'30"W, then climb to 1600' MSL direct 30°57'N, 89°19'W, then climb to 1800' MSL direct 31°12'N, 88°24'W, then at 1800' MSL direct 31°13'N, 87°36'W, then at 1800' MSL direct 31°22'N, 86°56'W, then at 1800' MSL direct 32°03'N, 86°00'W, then at 1800' MSL direct 32°39'30"N, 86°03'W, then climb to 2200' MSL direct 33°13'N, 85°30'W, then climb to 3800' MSL direct 33°43'N, 85°30'W, then at 3800' MSL direct 34°00'N, 84°52'W, then climb to 4400' MSL direct 34°31'N, 84°31'W, then climb to 6000' MSL direct 35°00'N, 84°00'W, then climb to 8000' MSL direct 36°00'N, 82°15'W, then at 8000' MSL direct 35°41'30"N, 81°50'W, then descend direct so as to cross 35°31'N, 81°37'W at 4000' MSL; then descend direct so as to cross 35°25'30"N, 81°30'W at 3000' MSL; then at 3000' MSL direct 34°41'N, 81°17'W, then at 3000' MSL direct 34°35'N, 81°16'W, then at 3000' MSL direct 34°23'N, 80°35'W, then descend to 2000' MSL direct 34°33'N, 79°52'W, then at 2000' MSL direct 34°59'N, 79°35'W, then at 2000' MSL direct to route exit point at 35°24'N, 79°42'W, then turn right climbing to cross 35°35'30"N, 78°48'W (Raleigh-Durham, N.C. VORTAC 187/17) at FL 190. When crossing 32°03'N, 86°00'W, pilot will report "CHUCKWAGON 302" to Montgomery approach control. When crossing 34°00'N, 84°52'W pilot will report "CHUCKWAGON 302" to Atlanta ARTCC on 269.3 MC. When crossing 35°41'N, 82°44'W pilot will report "CHUCKWAGON 302' to Atlanta ARTCC on 322.4 MC.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 28°00'N, 84°00'W to 34°41'N, 81°17'W; and from 34°23'N, 80°35'W to 35°18'N, 79°40'30"W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 4 NM either side of centerline from 28°00'N, 84°00'W to 28°58'N, 89°09'W; and 2 NM either side of centerline from 28°58'N, 89°09'W to 34°41'N, 81°17'W; and 2 NM either side of centerline from 34°23'N, 80°35'W to 35°18'N, 79°40'30"W. Aircraft operating IFR or VFR shall remain clear of areas R-4403 and R-4401.

Hours of Operation—0000Z to 1400Z one day each week.


Holston Mountain (HMY)
Hickory (HKY)
Greensboro (GSO)
Raleigh-Durham (RDU)
Liberty (LIB)
EXIT POINT 35°24' 79°42'
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Snowbird (SOT)
Knoxville (TYS)
Asheville (AVL)
Charlotte (CLT)
Fort Mill (FML)
Chesterfield (CTF)
Spartanburg (SPA)
Florence (FLO)
Harris (HRS)
Toccoa (TOC)
Greenwood (SC) (GRD)
Anderson (SC) (AND)
Columbia (SC) (CAE)
Vance (VAN)
Norcross (OCR)
Athens (Ga) (AHN)
Augusta (Ga) (AGS)
Allendale (ALD)
Charleston (SC) (CHS)
Jacks Creek (JKS)
Chattanooga (CHA)
Huntsville (HSV)
Muscle Shoals (MSL)
Decatur (Ala) (DCU)
Gadsden (GAD)
Hamilton (Ala) (HAB)
Atlanta (ATL)
Rex (REG)
Anniston (ANB)
Birmingham (BHM)
Columbus (Miss) (UBS)
Tuscaloosa (TCL)
Brookwood (BWA)
La Grange (LGC)
Columbus (Ga) (CSG)
Tuskegee (TGE)
Selma (SEM)
Montgomery (MGM)
Meridian (MEI)
Kewanee (EWA)
Eufaula (EUF)
Monroeville (MVC)
Dothan (DHN)
Laurel (LUL)
Hattiesburg (HBG)
Greene County (GCV)
Marianna (MAI)
Crestview (CEW)
Mobile (MOB)
(BFM) Brookley
Gulfport (GPT)
Picayune (PCU)
Navy Saufley (NUN)
R-4401
R-4403
GULF OF MEXICO
N
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50
Orlando (ORL)
Lakeland (LAL)
CHUCKWAGON 302 ENTRY POINT 28°00' 84°00'
20 NM 270°
St Petersburg (PIE)
8000
6000
4400
3800
3000
2200
2000
1800
1600
1200
1000
10 NOV 1966

LOUISIANA/FLORIDA/GEORGIA/ SOUTH CAROLINA/NORTH CAROLINA

CHUCKWAGON 304

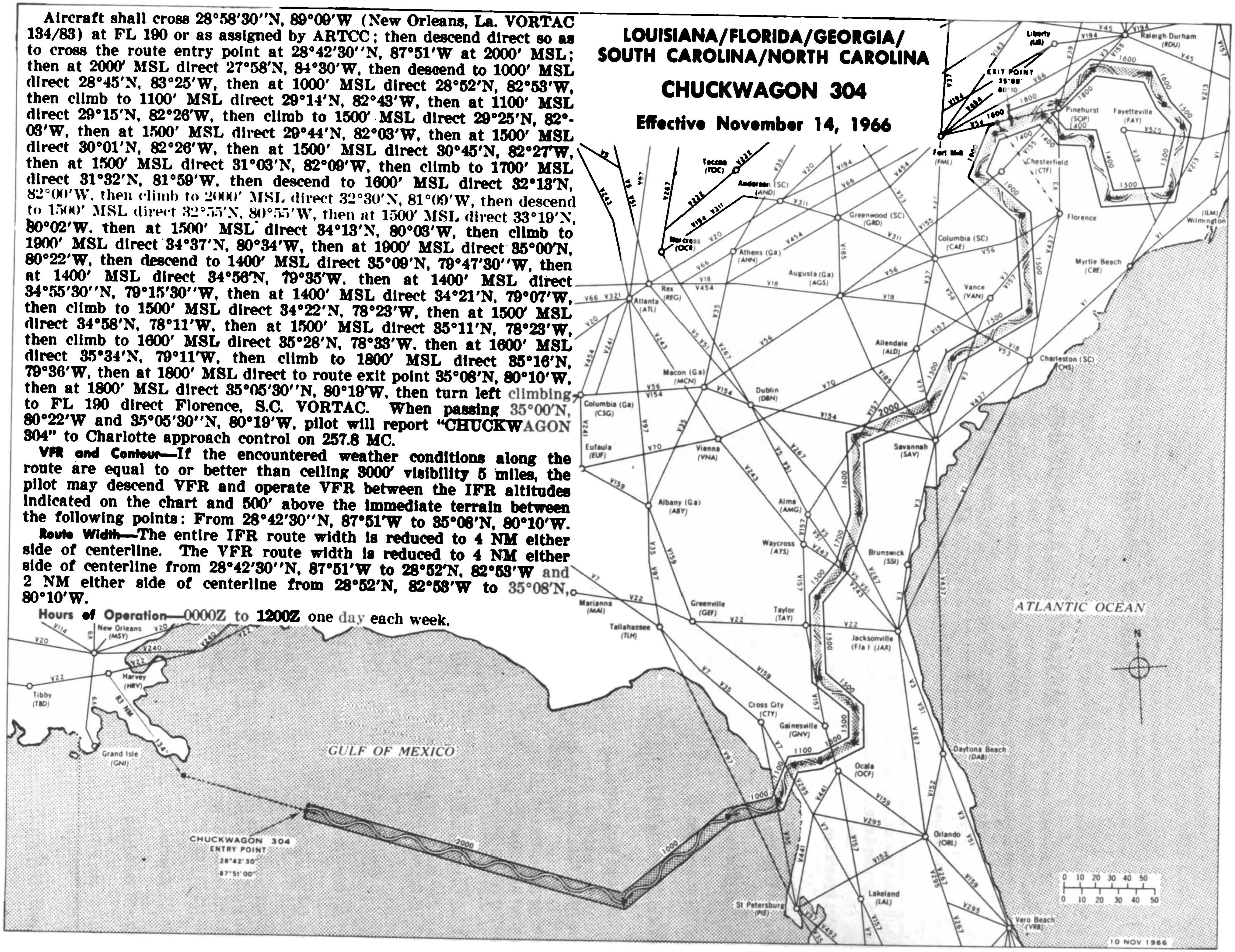
Effective November 14, 1966

Aircraft shall cross 28°58'30''N, 89°09'W (New Orleans, La. VORTAC 134/83) at FL 190 or as assigned by ARTCC; then descend direct so as to cross the route entry point at 28°42'30''N, 87°51'W at 2000' MSL; then at 2000' MSL direct 27°58'N, 84°30'W, then descend to 1000' MSL direct 28°45'N, 83°25'W, then at 1000' MSL direct 28°52'N, 82°53'W, then climb to 1100' MSL direct 29°14'N, 82°43'W, then at 1100' MSL direct 29°15'N, 82°26'W, then climb to 1500' MSL direct 29°25'N, 82°-03'W, then at 1500' MSL direct 29°44'N, 82°03'W, then at 1500' MSL direct 30°01'N, 82°26'W, then at 1500' MSL direct 30°45'N, 82°27'W, then at 1500' MSL direct 31°03'N, 82°09'W, then climb to 1700' MSL direct 31°32'N, 81°59'W, then descend to 1600' MSL direct 32°13'N, 82°00'W, then climb to 2000' MSL direct 32°30'N, 81°09'W, then descend to 1500' MSL direct 32°55'N, 80°55'W, then at 1500' MSL direct 33°19'N, 80°02'W. then at 1500' MSL direct 34°13'N, 80°03'W, then climb to 1900' MSL direct 34°37'N, 80°34'W, then at 1900' MSL direct 35°00'N, 80°22'W, then descend to 1400' MSL direct 35°09'N, 79°47'30''W, then at 1400' MSL direct 34°56'N, 79°35'W. then at 1400' MSL direct 34°55'30''N, 79°15'30''W, then at 1400' MSL direct 34°21'N, 79°07'W, then climb to 1500' MSL direct 34°22'N, 78°23'W, then at 1500' MSL direct 34°58'N, 78°11'W. then at 1500' MSL direct 35°11'N, 78°23'W, then climb to 1600' MSL direct 35°28'N, 78°33'W. then at 1600' MSL direct 35°34'N, 79°11'W, then climb to 1800' MSL direct 35°16'N, 79°36'W, then at 1800' MSL direct to route exit point 35°08'N, 80°10'W, then at 1800' MSL direct 35°05'30''N, 80°19'W, then turn left climbing to FL 190 direct Florence, S.C. VORTAC. When passing 35°00'N, 80°22'W and 35°05'30''N, 80°19'W, pilot will report "CHUCKWAGON 304" to Charlotte approach control on 257.8 MC.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 28°42'30''N, 87°51'W to 35°08'N, 80°10'W.

Route Width—The entire IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 4 NM either side of centerline from 28°42'30''N, 87°51'W to 28°52'N, 82°53'W and 2 NM either side of centerline from 28°52'N, 82°53'W to 35°08'N, 80°10'W.

Hours of Operation—0000Z to 1200Z one day each week.


Liberty (LIB)
EXIT POINT 35°08' 80°10'
Fort Mill (FML)
Raleigh-Durham (RDU)
Pinehurst (SOP)
Fayetteville (FAY)
Chesterfield (CTF)
Florence
(ILM) Wilmington
Myrtle Beach (CRE)
Toccoa (TOC)
Anderson (SC) (AND)
Norcross (OCR)
Greenwood (SC) (GRD)
Columbia (SC) (CAE)
Athens (Ga) (AHN)
Augusta (Ga) (AGS)
Vance (VAN)
Rex (REG)
Atlanta (ATL)
Allendale (ALD)
Charleston (SC) (CHS)
Macon (Ga) (MCN)
Dublin (DBN)
Savannah (SAV)
Columbia (Ga) (CSG)
Eufaula (EUF)
Vienna (VNA)
Albany (Ga) (ABY)
Alma (AMG)
Waycross (AYS)
Brunswick (SSI)
Marianna (MAI)
Greenville (GEF)
Taylor (TAY)
Tallahassee (TLH)
Jacksonville (Fla) (JAX)
ATLANTIC OCEAN
N
New Orleans (MSY)
Harvey (HRV)
Tibby (TBD)
83 NM
134°
Grand Isle (GNI)
GULF OF MEXICO
Cross City (CTY)
Gainesville (GNV)
Ocala (OCF)
Daytona Beach (DAB)
CHUCKWAGON 304 ENTRY POINT 28°42'30" 87°51'00"
Orlando (ORL)
St Petersburg (PIE)
Lakeland (LAL)
Vero Beach (VRB)
0 10 20 30 40 50
10 NOV 1966

MILITARY AERIAL REFUELING TRACKS

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Number and Name	Location	Air Refueling Initial Point (ARIP) Navid, Brg., Dist.	Tanker Orbit Point (ORBIT) Navaid, Brg. Dist.	EGRESS Navaid, Brg. Dist.
AR-10 Black Warrior	Wash., Idaho	SEA 032/72	GEG 220/54	MLP 165/108.
AR-100 Bamboo Grove	La., Tex	LFK 077/40		SJT 125/56.
		SJT 125/56		LFK 077/40.
AR-101 Private Eye	La., Miss., Tenn	MEM 317/43		MSY 222/79.
		MSY 200/143		MEM 214/56.
AR-105 Bargain Counter	Neb., Iowa	ONL 176/29		ONL 092/40.
AR-106A Little Bug Alfa	Mont., N. Dak., S. Dak.,	GSG 072/88		FSD 003/67.
	Iowa. Minn.	MCW 301/65		DIK 015/46.
AR-106B Little Bug Bravo	Mont., N. Dak., S. Dak.,	GSG 092/77		FSD 346/42.
	Iowa. Minn.	MCW 275/75		DIK 008/16.
AR-108 Golden Heart	Okla.,-Kans., Neb., S. Dak	GAG 007/52		RAP 135/91.
		RAP 135/91		GAG 007/52.
AR-109A Mud Road Alfa	Mich., Wis., Minn., N.	FAR 225/42		SAW 242/39.
	Dak., S. Dak.	SAW 127/44		FAR 112/44.
AR-109B Mud Road Bravo	Mich., Wis., Minn. N.	ABR 038/37		SAW 219/62.
	Dak., S. Dak.	SAW 151/64		FAR 137/65.
● AR-110 Gill Net	Mo., Ill., Ind., Ky	SGF 262/58		LOU 300/35
		LEX 027/41		SGF 060/45
AR-300 Border Town	Ga., N.C., S.C., Va	LYH VORTAC	LYH 230/100	SPA 237/47.
AR-301 Black Cow	Ala., Ga., Tenn	BHM 230/30	BHM 050/70	TYS 032/46.
● AR-307 Coronet Navajo	Ariz., N. Mex	PRC 240/40		INW 060/125.
		INW 060/125		PRC 240/40.
● AR-308 Coronet Apache	Ariz	GBN 275/60		CIE 095/30.
		CIE 095/30		GBN 275/60.
● AR-311 Coronet Roswell	N. Mex., Tex	ROW 158/100		LVS 156/10
		LVS 156/10		ROW 158/100
AR-312 Sugar Daddy	Tex., Okla	MWL 304/18		DHT 302/58.
		DHT 302/58		MWL 304/18.
AR-313 Mad Hatter	La., Tex., Okla	SHV 138/30		PNC 135/47.
		PNC 135/47		SHV 138/30.
● AR-314 Coronet Gage	N. Mex., Tex., Okla	LVS 249/40		GAG VORTAC
		GAG VORTAC		LVS 249/40
AR-315 prop Wash	Ky., Ind	LOZ 072/100		EVV VORTAC.
● AR-316 Coronet Milford	Nev., Utah	MLF 197/100	MLF VORTAC	MLF 235/32
● AR-317 Coronet Canyon	Nev., Ariz	Las 184/56	PGS VORTAC	PGS 321/21
AR-318 St. Joe	Mo., Ill., Ind	IRK 257/87	IRK 143/25	LEU 277/50.
		LEU 277/50	IRK 100/100	IRK 257/87.
AR-319 Waterloo	Iowa, Mo	MCW 121/52	IRK 018/50	FAM 272/68.
		FAM 272/68	IRK 135/50	MCW 121/52.
AR-320 Radio News	N.Y., Mich	MTC TACAN 097/37		ROC VORTAC.
		ROC VORTAC		MTC TACAN 097/37.
AR-321 Mac's Track	Mich., Wis	ECK 294/63	GRB VORTAC	GRB 105/120
AR-400 Osage	Okla., Kans., Mo	GAG VORTAC		MKC VORTAC.
		MKC VORTAC		GAG VORTAC
AR-401 Cheyenne	Okla., Kan	GCK 203/77		MKC 240/54.
		MKC 240/54		GCK 203/77.

LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the general public as a brochure by subscription on request to the Director, U.S. Coast and Geodetic Survey, Washington Science Center, Rockville, Md. 20852 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning, Section II–A, Military Training Routes." In addition, each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

BOEING LOW LEVEL IFR OPERATIONS

The Boeing Company will be conducting low level weather testing with B–52 aircraft under IFR conditions along the routes designated as "BIG BOY" and "CUTE COOKIE" until March 31, 1967. These routes will be flown at airspeeds between 260K and 400K indicated and at altitudes between 500 above the terrain and the Minimum Obstruction Clearance (MOCA) as given in the route description, except when the specified USAF Oil Burner routes are in operation. The route widths are 2½ statute miles either side of centerline. Flying activities will be conducted between the hours of sunrise and sunset seven days a week. The routes may be flown in either direction.

BIG BOY route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 38°33'N, 101°55'W MOCA 4,800' MSL; to 38°00'N, 101°55'W MOCA 4,800' MSL; to 37°35'N, 101°59'W MOCA 4,800' MSL; to 37°09'N, 101°57'W MOCA 4,800' MSL; to 36°38'N, 102°21'W MOCA 5,300' MSL; to 36°42'N, 103°30'W MOCA 6,800' MSL; to 36°30'N, 104°30'W MOCA 9,900' MSL.

When exiting the route at 36°30'N, 104°30'W aircraft shall turn left, climbing so as to cross 36°16'N, 104°28'W at 10,000' MSL, then continue climb direct so as to cross 36°16'N, 104°00'W at 17,000' MSL.

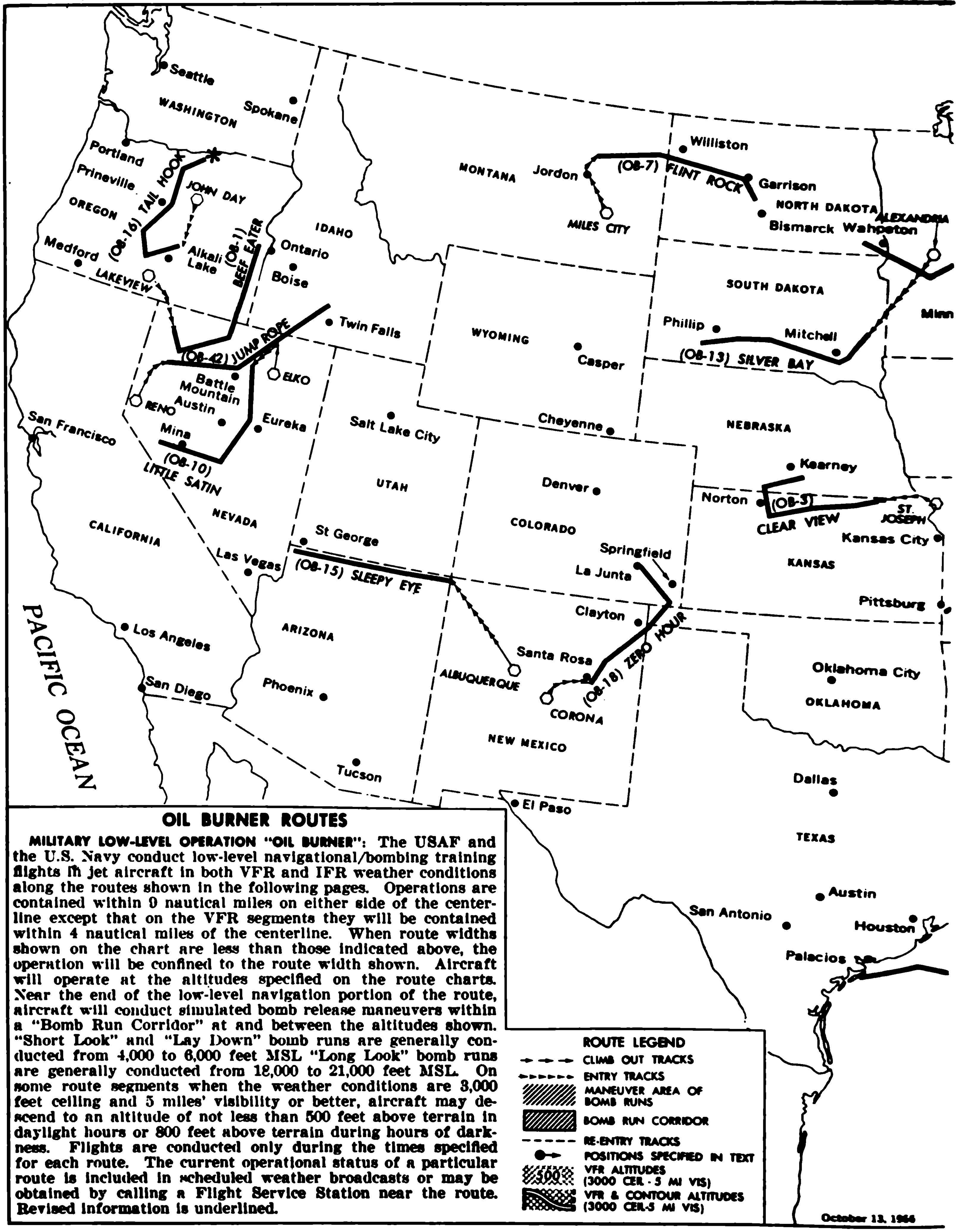
Altitude exceptions:

When "ZERO HOUR" oil burner route is operational, westbound aircraft shall after passing 37°09'N, 101°57'W, climb so as to cross 36°38'N, 102°21'W at 8,000' MSL and maintain 8,000' MSL to 36°41'N, 103°15'W then start to climb so as to cross 36°42'N, 103°30'W at or below 9,900' MSL. Eastbound aircraft shall after passing 36°42'N, 103°30'W climb or descend so as to cross 36°41'N, 103°15'W at 9,000' MSL to 36°38'N, 102°21'W, then start descent to 5,300' MSL or below.

CUTE COOKIE route—From 38°43'N, 99°49'W; to 38°59'N, 100°33'W MOCA 3,800' MSL; to 38°59'N, 101°10'W MOCA 4,200' MSL; to 39°35'N, 101°14'W MOCA 4,300' MSL; to 40°18'N, 101°15'W MOCA 4,300' MSL; to 40°30'N, 101°06'W MOCA 4,300' MSL; to 41°05'N, 101°34'W MOCA 4,400' MSL; to 42°12'N, 99°52'W MOCA 4,500' MSL.

When exiting the route at 42°12'N, 99°52'W, aircraft shall turn right climbing so as to cross 42°12'N, 99°45'W at 5,000' MSL, then continue climb direct so as to cross the O'Neill, Nebraska VORTAC 233/40 at 6,000' MSL.

INDEX OF OIL BURNER ROUTES


Seattle
WASHINGTON
Spokane
Portland
Prineville
OREGON
Medford
(OB-16) TAIL HOOK
JOHN DAY
Alkali Lake
(OB-1) BEEF EATER
LAKEVIEW
IDAHO
Ontario
Boise
Twin Falls
(OB-42) JUMP ROPE
ELKO
Battle Mountain
Austin
RENO
Eureka
Mina
(OB-10) LITTLE SATIN
San Francisco
NEVADA
CALIFORNIA
Las Vegas
St George
(OB-15) SLEEPY EYE
PACIFIC OCEAN
Los Angeles
San Diego
ARIZONA
Phoenix
Tucson
MONTANA
Jordon
MILES CITY
(OB-7) FLINT ROCK
Williston
Garrison
NORTH DAKOTA
Bismarck
Wahpeton
ALEXANDRIA
SOUTH DAKOTA
Minn
WYOMING
Casper
Phillip
Mitchell
(OB-13) SILVER BAY
Salt Lake City
UTAH
Cheyenne
NEBRASKA
Kearney
Denver
COLORADO
Norton
(OB-3) CLEAR VIEW
ST. JOSEPH
Kansas City
KANSAS
Springfield
La Junta
Pittsburg
Clayton
(OB-18) ZERO HOUR
Santa Rosa
ALBUQUERQUE
CORONA
NEW MEXICO
Oklahoma City
OKLAHOMA
Dallas
El Paso
TEXAS
Austin
San Antonio
Houston
Palacios

OIL BURNER ROUTES

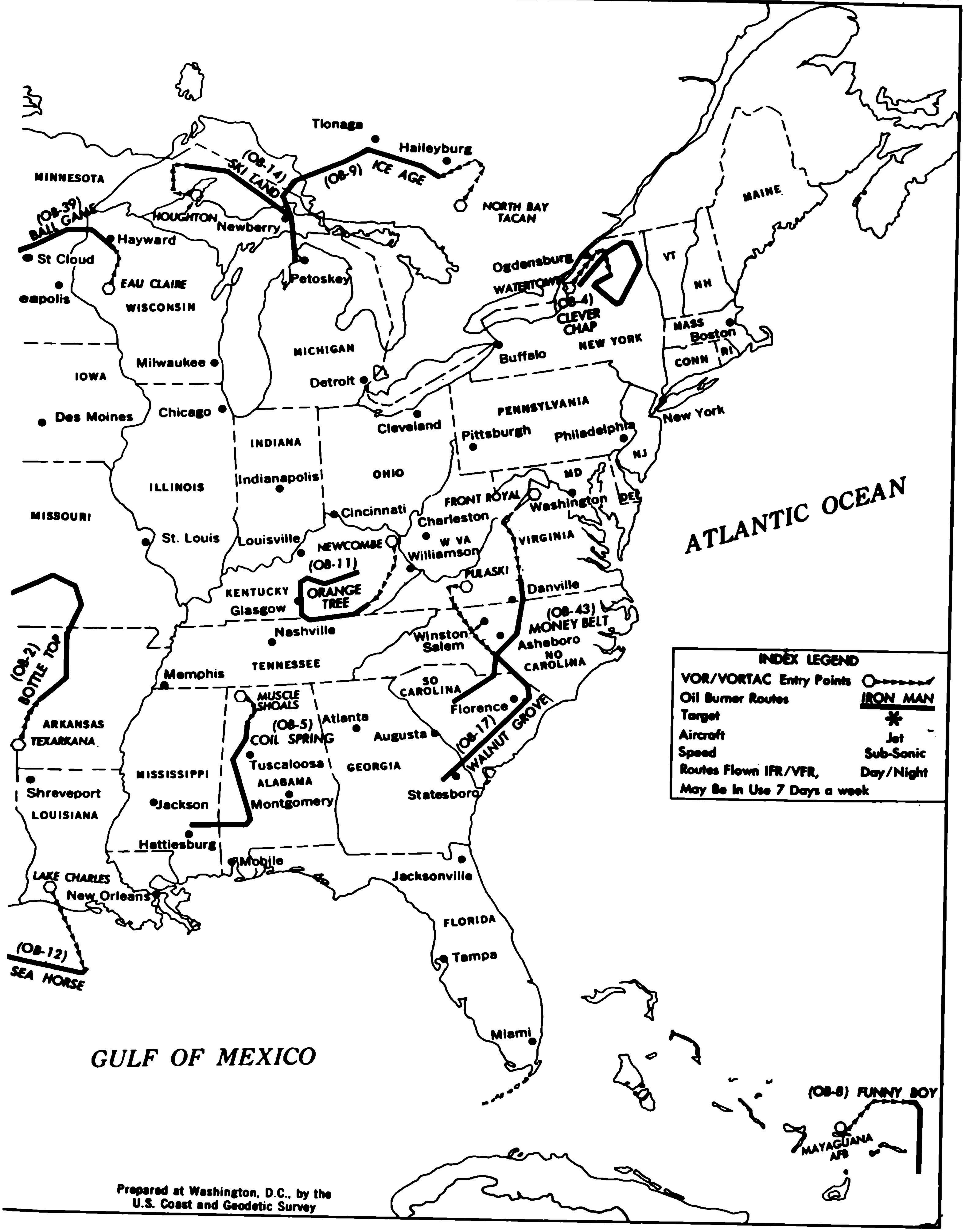
MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 9 nautical miles on either side of the centerline except that on the VFR segments they will be contained within 4 nautical miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 12,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

ROUTE LEGEND

→ → → CLIMB OUT TRACKS
►►►►►► ENTRY TRACKS
▨ MANEUVER AREA OF BOMB RUNS
▨ BOMB RUN CORRIDOR
- - - - - RE-ENTRY TRACKS
●→ POSITIONS SPECIFIED IN TEXT
500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
▨ VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

October 13, 1966

INDEX OF OIL BURNER ROUTES


Tionaga
Haileybury
(OB-14) SKI LAND
(OB-9) ICE AGE
NORTH BAY TACAN
MINNESOTA
(OB-39) BALL GAME
HOUGHTON
Newberry
Hayward
St Cloud
EAU CLAIRE
eapolis
WISCONSIN
Petoskey
Ogdensburg
WATERTOWN
(OB-4) CLEVER CHAP
VT
NH
MAINE
MASS
Boston
CONN
RI
NEW YORK
Buffalo
MICHIGAN
Milwaukee
IOWA
Detroit
Des Moines
Chicago
Cleveland
PENNSYLVANIA
Pittsburgh
Philadelphia
New York
NJ
INDIANA
OHIO
Indianapolis
ILLINOIS
MISSOURI
MD
DEL
FRONT ROYAL
Washington
Cincinnati
Charleston
W VA
St. Louis
Louisville
NEWCOMBE
Williamson
VIRGINIA
ATLANTIC OCEAN
(OB-11)
KENTUCKY
ORANGE TREE
Glasgow
PULASKI
Danville
(OB-43) MONEY BELT
Nashville
Winston-Salem
Asheboro
NO CAROLINA
(OB-2) BOTTLE TOP
Memphis
TENNESSEE
SO CAROLINA
Florence
ARKANSAS
TEXARKANA
MUSCLE SHOALS
(OB-5) COIL SPRING
Atlanta
Augusta
(OB-17) WALNUT GROVE
Tuscaloosa
GEORGIA
MISSISSIPPI
ALABAMA
Shreveport
LOUISIANA
Jackson
Montgomery
Statesboro
Hattiesburg
Mobile
Jacksonville
LAKE CHARLES
New Orleans
FLORIDA
(OB-12) SEA HORSE
Tampa
Miami
GULF OF MEXICO
(OB-8) FUNNY BOY
MAYAGUANA AFB
INDEX LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes — IRON MAN
Target — *
Aircraft — Jet
Speed — Sub-Sonic
Routes Flown IFR/VFR, — Day/Night
May Be In Use 7 Days a week

Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

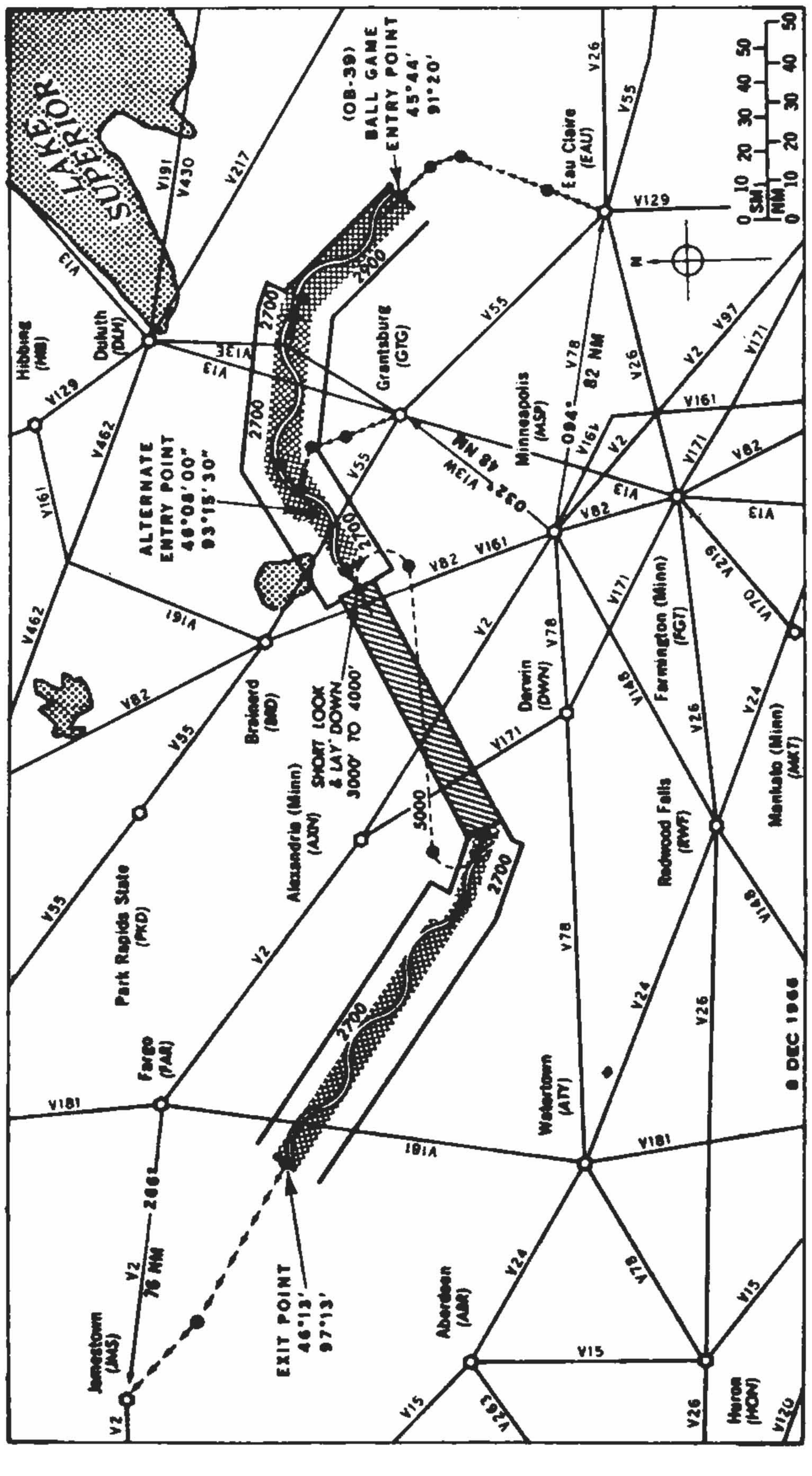
OIL BURNER ROUTES

MINNESOTA/NORTH DAKOTA/SOUTH DAKOTA/ WISCONSIN

BALL GAME OB–39

Effective November 20, 1966 thru January 21, 1967

Aircraft shall cross Minneapolis VORTAC 094/82 DME fix (Eau Claire, Wisc. VOR) at FL 230 or as assigned by ARTCC; then at FL 230 or assigned altitude direct to 45°08'N, 91°20'W; then start descent so as to cross 45°29'N, 91°07'W at or below 11,000' MSL; then turn left descending to 45°37'N, 91°10'W; then continue descent direct so as to cross 45°44'N, 91°20'W, the low level entry point, at 2,900' MSL; then at 2,900' MSL direct 46°10'N, 91°56'W; then turn left descending so as to cross 46°12'N, 92°02'W at 2,700' MSL; then at 2,700' MSL direct to 46°16'30"N, 92°56'W; then at 2,700' MSL direct to 46°00'N, 93°35'30"W then climb so as to cross 45°57'N, 93°42'W at 3,000' MSL.


(OB-39) BALL GAME ENTRY POINT 45°44' 91°20'
ALTERNATE ENTRY POINT 46°08'00" 93°15'30"
EXIT POINT 46°13' 97°13'
SHORT LOOK & LAY DOWN 3000' TO 4000'
LAKE SUPERIOR
Hibbing (HIB)
Duluth (DLH)
Grantsburg (GTG)
Eau Claire (EAU)
Minneapolis (MSP)
Brainerd (BRD)
Alexandria (Minn) (AXN)
Park Rapids State (PKD)
Fargo (FAR)
Jamestown (JMS)
Darwin (DWN)
Farmington (Minn) (FGT)
Redwood Falls (RWF)
Mankato (Minn) (MKT)
Watertown (ATY)
Aberdeen (ABR)
Huron (HON)
2900
2700
5000
82 NM
48 NM
76 NM
266°
032°
094°
0 10 20 30 40 50
SM
NM
V2
V15
V24
V26
V55
V78
V82
V97
V129
V148
V161
V171
V181
V191
V217
V263
V430
V462
8 DEC 1966

Short Look and Lay Down—After passing 45°57'N, 93°42'W, aircraft shall operate between 3,000' MSL and 4,000' MSL through the bomb run corridor (4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N, 95°10'W). After exiting the bomb run corridor at 45°25'N, 95°10'W, aircraft shall descend direct so as to cross 45°31'N, 95°36'W at 2,700' MSL; then at 2,700' MSL direct 46°13'N, 97°13'W. After exiting the route at 46°13'N, 97°13'W, aircraft shall start climb so as to cross 46°39'N, 98°12'W at FL 200 or above; then climb direct so as to cross Fargo, N.D. VORTAC DME 266/76 fix (Jamestown, N.D. VOR) at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 45°25'N, 95°10'W; turn right and climb to 5000' MSL direct to 45°38'N, 95°17'W; then at 5000' MSL direct to 45°45'N, 93°33'W; then turn left descend to 3000' MSL direct to 45°57'N, 93°42'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 45°44'N, 91°20'W to 46°00'N, 93°35'30"W and from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Alternate Entry—Aircraft shall cross the Minneapolis VORTAC 032/48 DME fix (Grantsburg, Wisc. VOR) at FL 230 or as assigned by ARTCC, then descend so as to cross 46°00'N, 92°47'30"W at 17,000' MSL or above; then continue descent direct so as to cross 46°08'N, 92°51'30"W at 13,000' MSL or above; then turn left continuing descent so as to cross 46°12'N, 93°06'W at 7,000' MSL; then continue descent so as to cross 46°08'N, 93°15'30"W at 2,700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4 NM on the northeast side of centerline from 45°44'N, 91°20'W to 46°10'N, 91°56'W and 4 NM either side of centerline from 45°57'N, 93°42'W to 45°25'N 95°10'W and 4 NM on the north side of centerline from 45°25'N, 95°10'W to 45°31'N, 95°36'W. The VFR route width is reduced to 2 NM on the northwest side of centerline from 46°08'N, 93°15'30"W to 46°00'N, 93°35'30"W and to 2 NM on the north side of centerline from 45°25'N, 95°10'W to 45°35'N, 95°45'W and to 2 NM on the south side of centerline from 45°25'N, 95°10'W to 46°13'N, 97°13'W.

Hours of Operation—24 hours daily, 7 days a week.

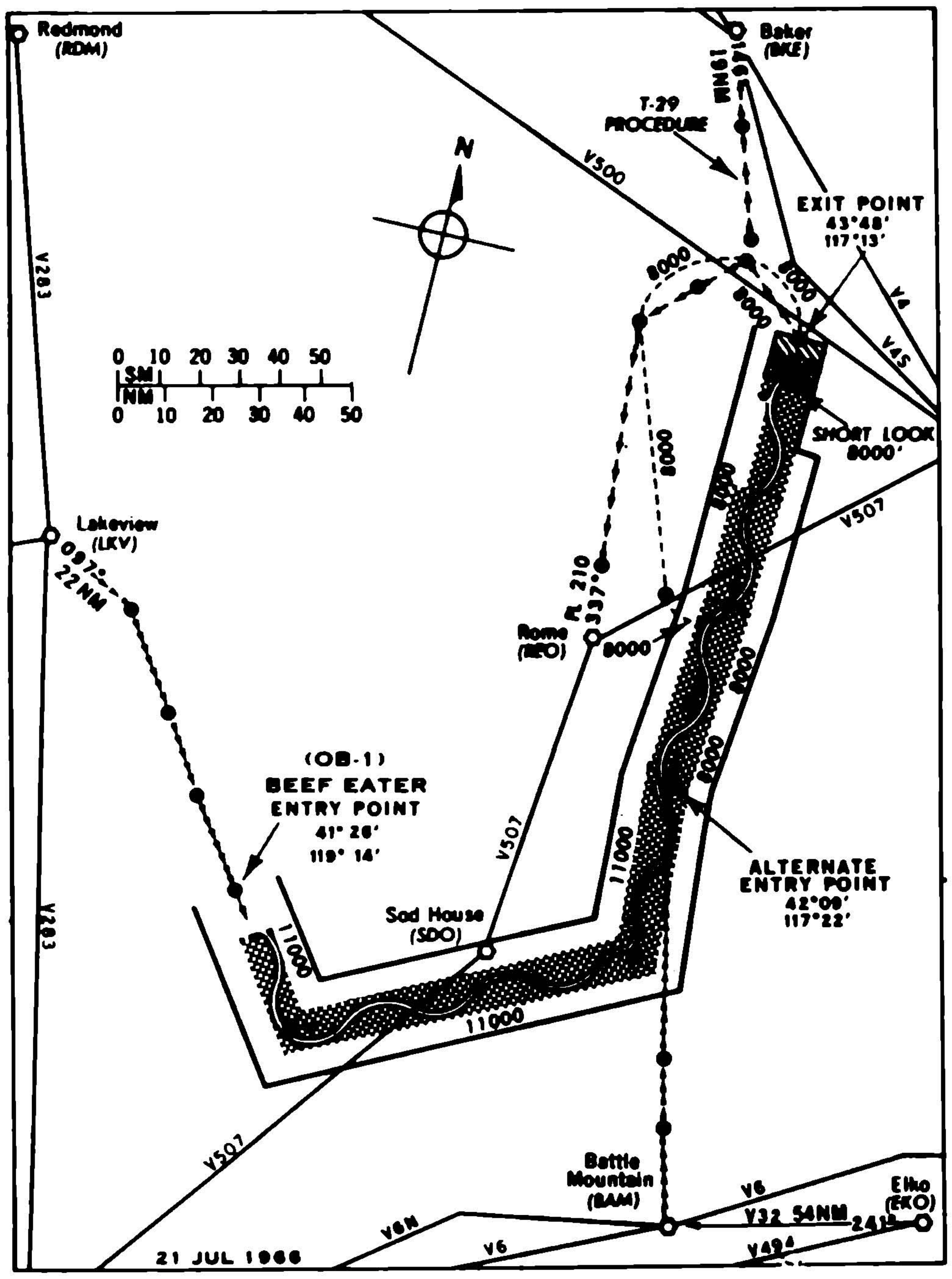
NEVADA/OREGON

BEEF EATER OB–1

Revised Effective June 19, 1966

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC;

then maintain assigned altitude via the Lakeview 097° radial until 22 NM east of the Lakeview VORTAC (42°-20'N, 120°04'W); then descend direct to cross 42°00'N, 119°45'W at or below FL 230; then descend direct so as to cross 41°44'N, 119°31'W at or above 16,000' MSL; then descend direct so as to cross the entry point of the low level route at 41°26'N, 119°14'W at 11,000' MSL; then at 11,000' MSL direct to 40°58'N, 118°49'W, then 11,000' MSL direct 41°31'N, 117°20'W, 11,000' MSL direct 42°09'N, 117°22'W; then descend direct so as to cross 42°26'N, 117°19'W at 8000' MSL, then 8000' MSL direct 42°50'N, 117°14'W; then 8000' MSL direct 43°40' N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (4 NM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°-59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 210, then maintain FL 210 via the Rome, Oregon 337 radial to the Rome, Oregon VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°-31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°49'N, 117°33'W; then 8000' MSL to re-enter the route via direct 42°50'N, 117°14'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 41°17'N, 119°06'W to 43°45'N, 117°13'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W then descend direct so as to cross 41°10'N, 117°05'W at or above 12,000' MSL; then descend direct so as to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°14'W to 43°48'N, 117°13'W is reduced to 4 NM on the east side of the centerline. The route width of the VFR and Contour segment is also reduced to 3 NM on the west side of centerline from 41°17'N, 119°06'W to 40°58'N, 118°49'W and to 2 NM from centerline on the west side from 43°15'N, 117°14'W to 43°35'N, 117°14'W.

T-29 Procedure—Aircraft shall cross the Elko, Nevada, VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

BOTTLE TOP OB-2

Revised Effective April 24, 1966

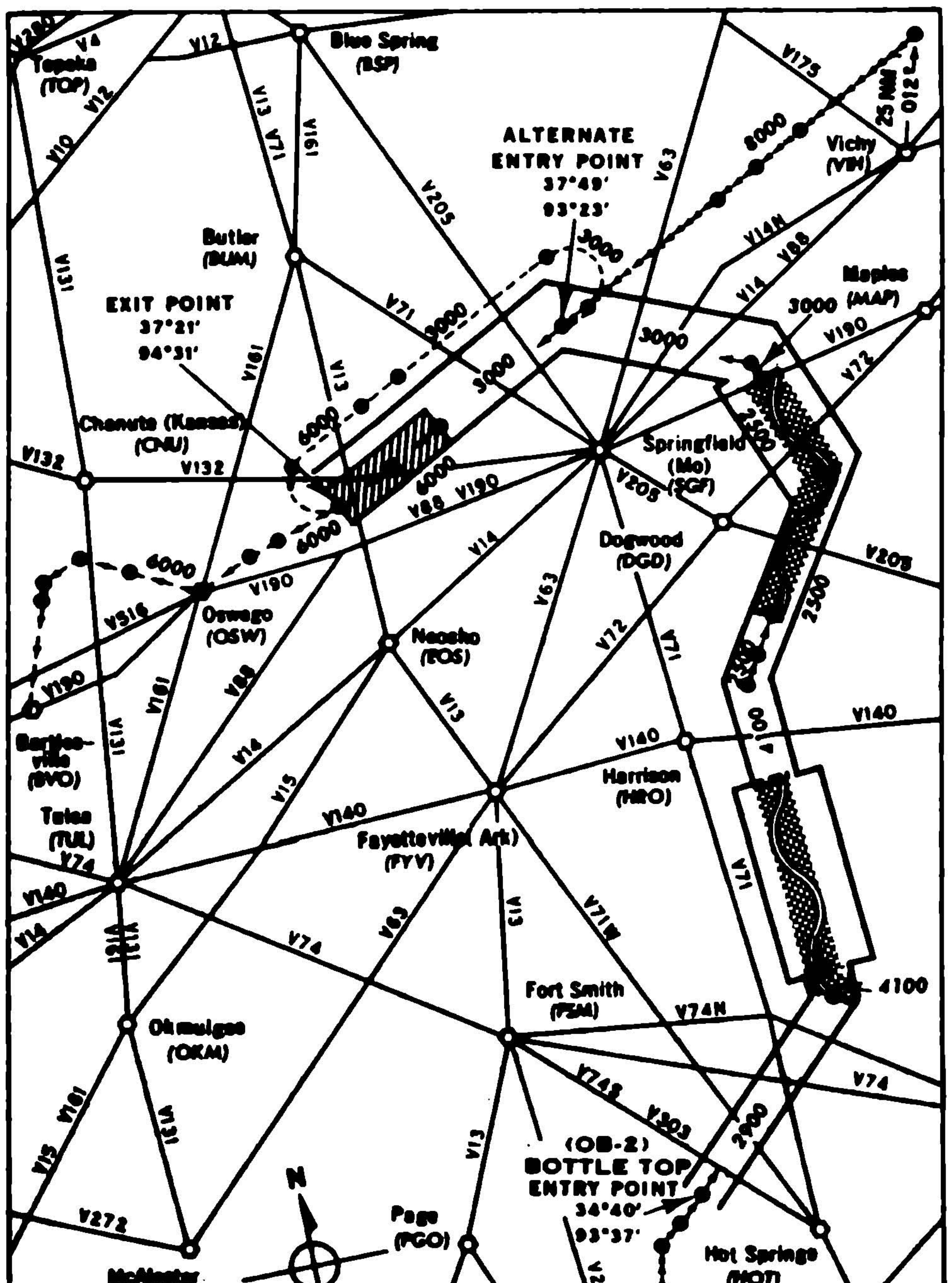
Aircraft shall cross the Texarkana, Ark. VORTAC 006/15 at FL 190 or as assigned by ARTCC; then proceed outbound on the 006° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N, 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N, 92°51'W; then climb direct so as to cross 35°21'N, 92°-51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N, 92°55'W; then descend direct so as to cross 36°30'N, 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N, 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn left direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°33'30''N, 94°-01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°-31'W, maintain 6000' MSL, turn right to 37°32'N, 94°-41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°04'30''N, 93°23'W; then 3000' MSL turn right to 37°52'N, 93°15'W; then 3000' MSL direct to 37°49'N, 93°23'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 92°34'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ARTCC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34''W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.


Topeka (TOP)
Blue Spring (BSP)
ALTERNATE ENTRY POINT 37°49' 93°23'
Vichy (VIH)
25 NM 012°
Butler (BUM)
EXIT POINT 37°21' 94°31'
Maples (MAP)
Chanute (Kansas) (CNU)
Springfield (Mo) (SGF)
Dogwood (DGO)
Oswego (OSW)
Neosho (EOS)
Bartlesville (BVO)
Tulsa (TUL)
Harrison (HRO)
Fayetteville (Ark) (FYV)
Fort Smith (FSM)
Okmulgee (OKM)
(OB-2) BOTTLE TOP ENTRY POINT 34°40' 93°37'
Page (PGO)
Hot Springs (HOT)
McAlester (MLC)
Texarkana (TXK)
N
8000
6000
4000
3000
2500
4100
21 JUL 1966

Route Width—The IFR route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°06'N, 92°23'W is reduced to 4 NM either side of centerline and 4 NM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W. The VFR route width from 35°21'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°06'N, 92°23'W is reduced to 2 NM on the east side of centerline.

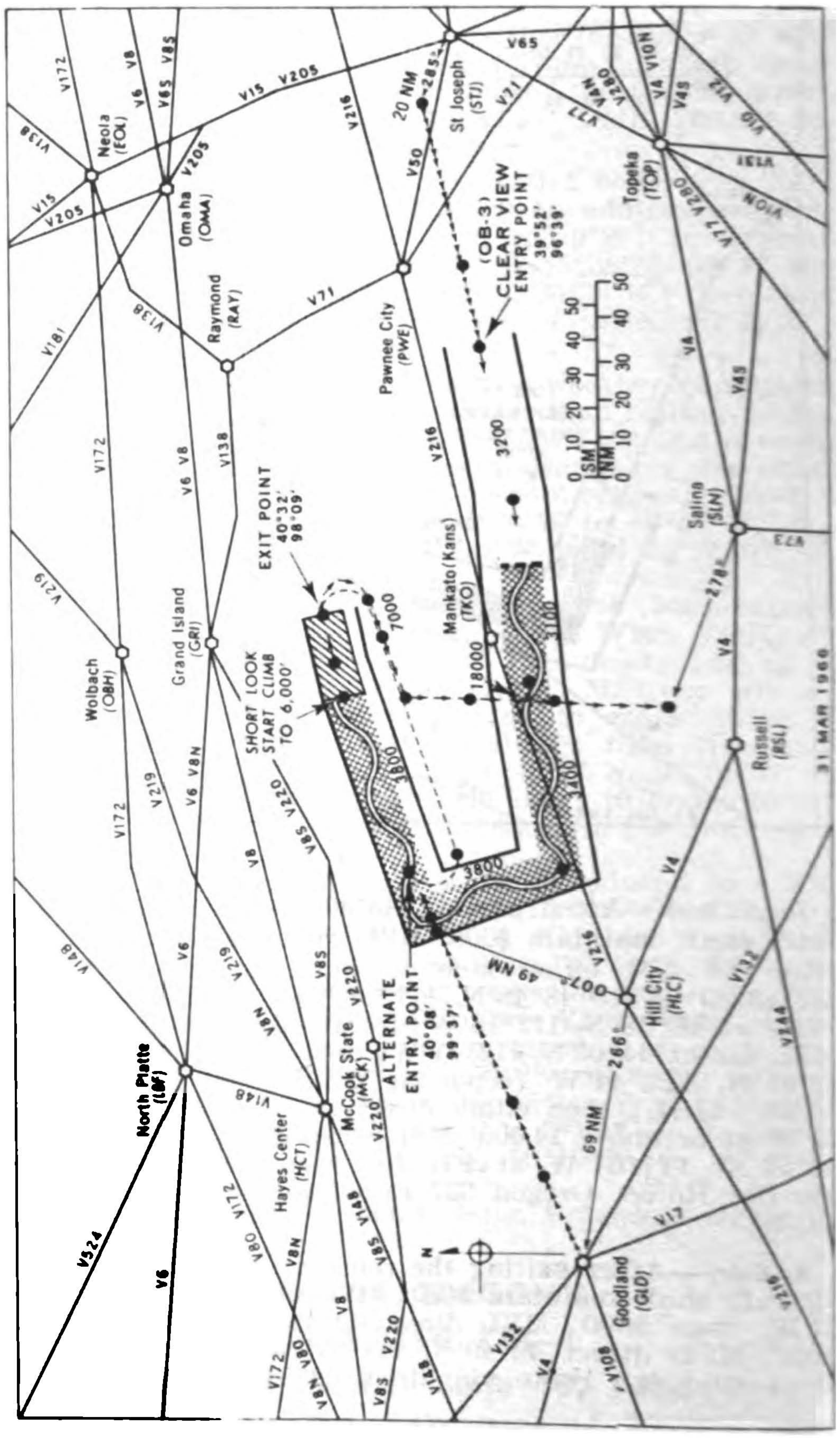
Hours of Operation—Primary Entry—0230Z to 1145Z 7 days per week. Alternate Entry—0100Z to 1400Z 7 days per week.

KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW OB-3

Revised Effective March 27, 1966

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 285° radial, maintain FL 240 or as assigned until 20 NM northwest of St. Joseph VORTAC; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL


Neola (EOL)
Omaha (OMA)
St Joseph (STJ)
20 NM 285°
Topeka (TOP)
(OB-3) CLEAR VIEW ENTRY POINT 39°52' 96°39'
Pawnee City (PWE)
Raymond (RAY)
EXIT POINT 40°32' 98°09'
SHORT LOOK START CLIMB TO 6,000'
Grand Island (GRI)
Mankato (Kans) (TKO)
Wolbach (OBH)
Salina (SLN)
Russell (RSL)
North Platte (LBF)
McCook State (MCK)
ALTERNATE ENTRY POINT 40°08' 99°37'
Hill City (HLC)
Hayes Center (HCT)
Goodland (GLD)
3200
7000
18000
3800
69 NM
266°
278°
N
31 MAR 1966

direct 40°03'N, 99°50'W maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (4 NM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at FL 180; then at FL 180 direct 39°32'N, 98°37'W; then climb so as to cross 39°08'N, 98°37'W at FL 240 (Salina VORTAC 278/49).

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 39°55'N', 99°30'W; then turn right descending to 3800' MSL to 40°08'N, 99°37'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 39°42'N, 97°52'W to 40°26'N, 98°37'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Hill City, Kansas, VORTAC 266/69 NM fix at FL 240 or as assigned by ARTCC; then maintain FL 240 or assigned altitude direct 39°33'N, 101°15'W; then descend so as to cross 39°42'N, 100°50'W at 14,000' MSL; then descend so as to cross the Hill City, Kansas VORTAC 007/49 NM fix at 5500' MSL or below; then descend to 3800' MSL direct 40°03'N, 99°50'W; thence via the published route.

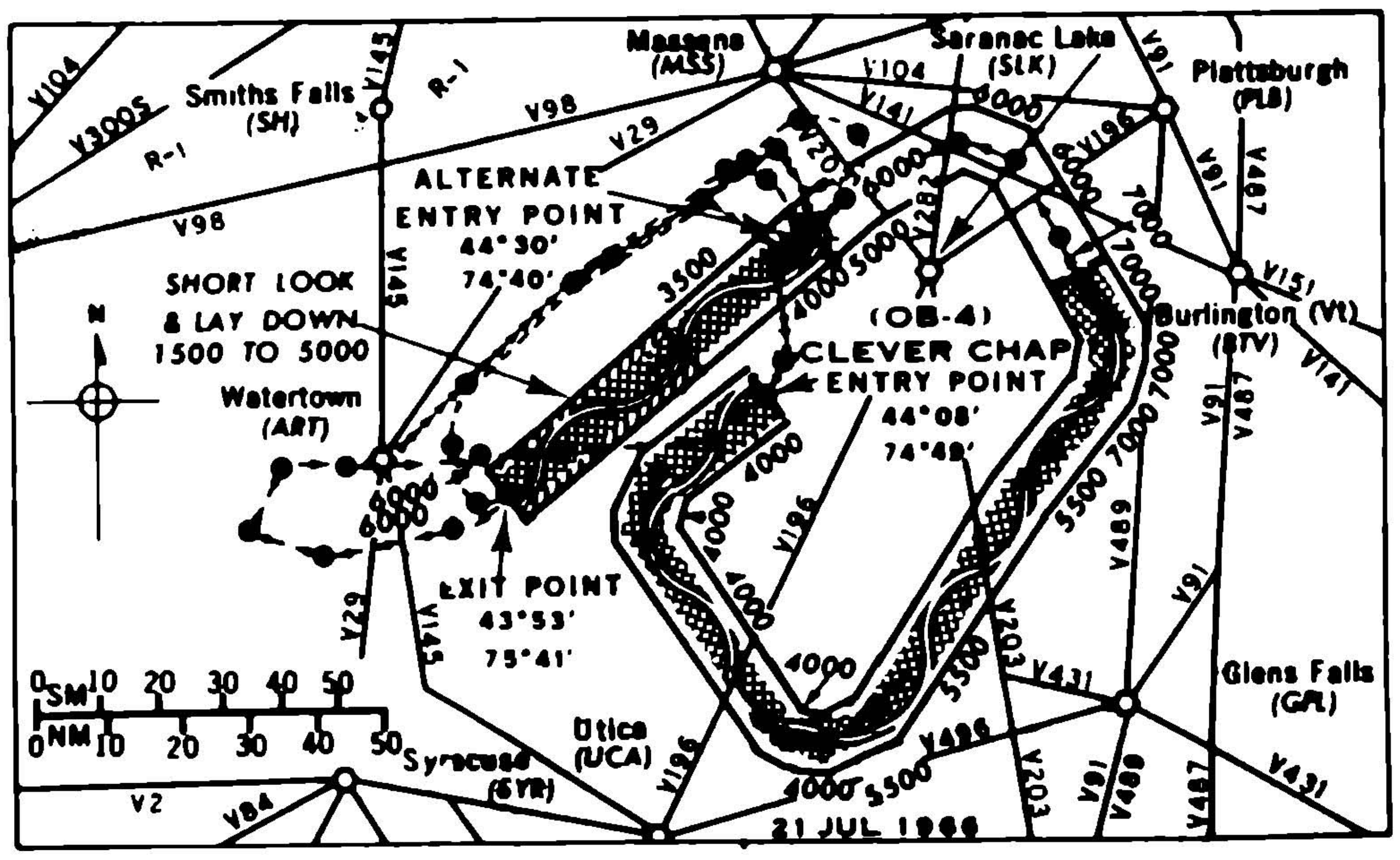
Route Width—The route width from 39°31'N, 99°34'W to the route exit point is 4 NM on the west and north side of the route centerline and 9 NM on the east and south side of the route centerline.

Hours of Operation—0000Z to 2359Z Monday through Saturday.

NEW YORK/VERMONT

CLEVER CHAP OB–4

Revised Effective November 10, 1966



Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at 18,000 feet MSL; cross 44°28'N, 75°18'W at 17,000 feet MSL or below: cross 44°37'N, 75°00'W at 9,000 feet MSL; turn right, cross 44°30'N, 74°45'W at 7,000 feet MSL; cross 44°13'N, 74°45'W at 6,000 feet MSL; turn right cross 44°08'N, 74°49'W at 4,000 feet MSL low level entry point; maintain 4,000 feet MSL, direct 43°56'N, 75°09'W; turn left to 43°48'N, 75°12'W; direct 43°20'N, 74°48'W turn left to 43°18'N, 74°46'W; continue turn climb to cross 43°17'N, 74°40'W at 5,500 feet MSL; maintain 5,500 feet MSL, turn left to 43°20'N, 74°29'W direct 43°55'N, 73°55'W: climb to cross 43°59'N, 73°51'W at 7,000 feet MSL: maintain 7,000 feet MSL (ctc BTV apch ctl) direct 44°09'N, 73°41'W; turn left to 44°16'N, 73°39'W; direct 44°25'N, 73°45'W; descend to cross 44°29'N, 73°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°41'N, 73°56'W; turn left to 44°44'N, 74°07'W; direct 44°35'N, 74°32'W descend to cross 44°32'N, 74°37'W at 5,000 feet MSL or below cross 44°30'N, 74°40'W at 4,000 feet MSL; cross 44°28'N, 74°44'W at 3,500 feet MSL; maintain 3,500 feet MSL direct 44°15'N, 75°05'W.

Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1,500 and 5,000 feet MSL. Minimum IFR altitude through the bomb run corridor is 3,500 feet MSL (the bomb run corridor is 4 nautical miles either side of centerline from 44°15'N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W, aircraft shall climb so as to cross 43°49'N, 75°52'W at 6,000 feet MSL; maintain 6,000 feet MSL direct 43°43'N, 76°16'W; start climb, turn right to 43°47'N, 76°31'W; continue turn cross 43°56'N, 76°25'W at 14,000 feet MSL or below; cross 43°57'N, 76°11'W at FL 180 or above; cross 43°58'N, 75°46'W at FL 220 or below; cross 43°59'N, 75°25'W at FL 240 or as assigned by ARTCC direct 44°01'N, 75°00'W.

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6,000 feet MSL; maintain 6,000 feet direct 44°00'N, 75°51'W; direct 44°09'N, 75°49'W; turn right to 44°24'N, 75°26'W; direct 44°47'N, 74°41'W; turn right to 44°45'N, 74°29'W; continue turn to 44°35'N, 74°32'W; thence via published route. Aircraft may proceed at 6,000 feet from 44°24'N, 75°26'W direct 44°39'N, 74°56'W; turn right descend to cross 44°39'N, 74°45'W at 4,000 feet; continue turn to cross 44°28'N, 74°44'W at 3500'MSL. Thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800 feet above the immediate terrain between the following points: from 44°08'N, 74°49'W to 44°25'N, 73°45'W and from 44°30'N, 74°40'W to 43°53'N, 75°41'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 250 or as assigned by ARTCC; descend to cross 44°09'N, 75°49'W at FL 230; continue descent to cross 44°24'N, 75°26'W at FL 180: cross 44°28'N, 75°18'W at 17,000 feet MSL or below, cross 44°37'N, 75°00'W at 9,000 feet; cross 44°41'N, 74°52'W at 6,000 feet; continue descent, turn right; cross 44°43'N, 74°46'W at 4,000 feet MSL; maintain 4,000 feet MSL; continue turn to intercept Oil Burner Route at 44°30'N, 74°40'W; thence via Oil Burner Route.

Route Width—The entire IFR low level route is reduced to 4 NM either side of center line. The entire VFR

contour route width is reduced to 3 NM either side of center line with the following exception. From 43°48′N, 75°12′W to 44°16′N, 73°39′W 2 NM either side of center line.

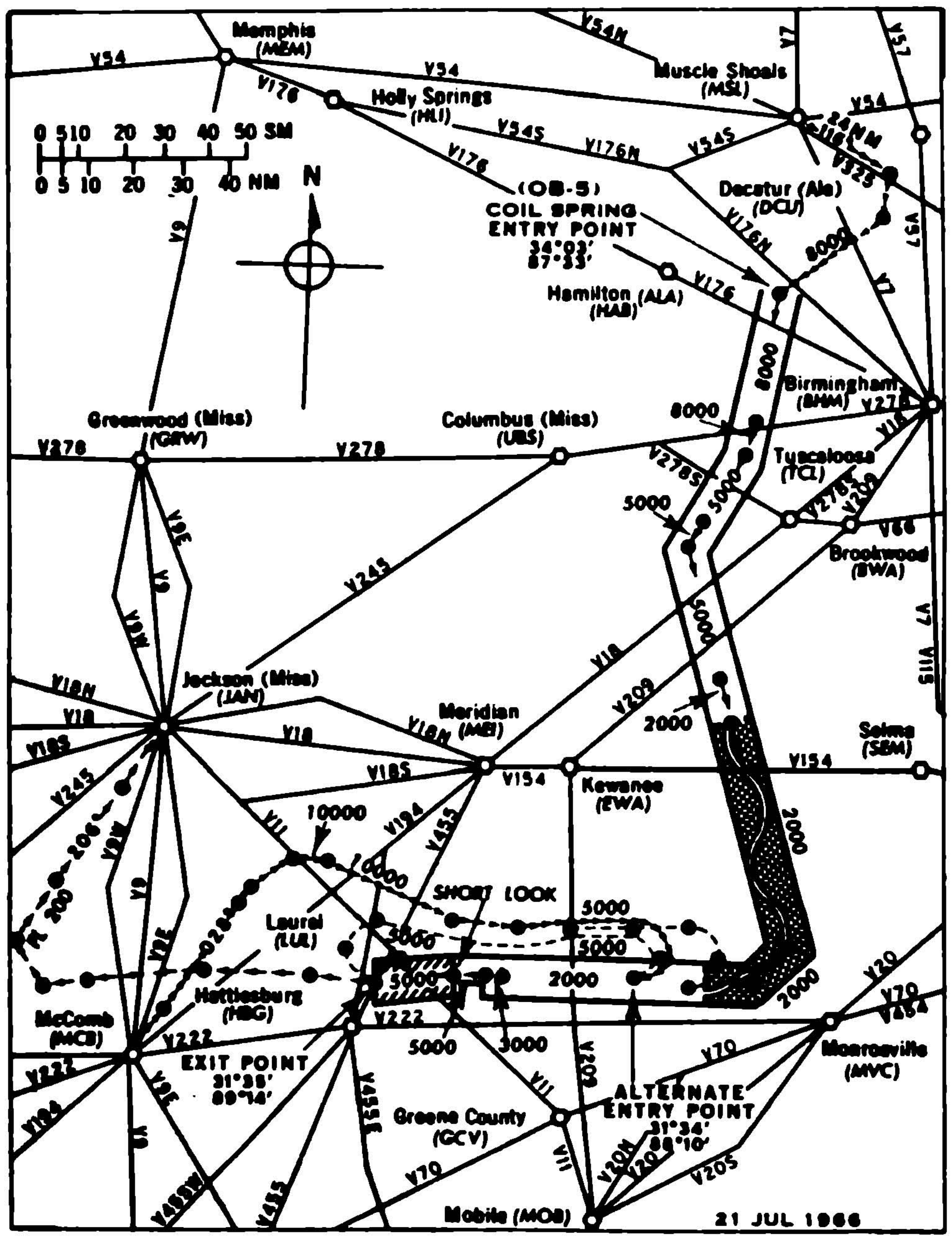
Hours of Operation—24 hours per day, 7 days per week.

ALABAMA/MISSISSIPPI

COIL SPRING OB–5

Revised Effective January 6, 1966

Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 116° radial, cross Muscle Shoals VOR 116°/24 NM at 12,000′ MSL; turn right, descend to cross 34°19′N, 87°06′W at 8000′ MSL, maintain 8000′ MSL direct to the route entry point at 34°03′N, 87°33′W, direct 33°35′N, 87°38′W, direct 33°28′N, 87°42′W; descend direct to cross 33°15′N, 87°52′W at 5000′ MSL, maintain 5000′ MSL direct 33°10′N, 87°56′W, direct 32°40′N, 87°48′W; descend to cross 32°31′N, 87°45′W at 2000′ MSL, maintain 2000′ MSL direct 31°41′N, 87°31′W, turn right to 31°33′N, 87°40′W, maintain 2000′ MSL direct 31°36′N, 88°42′W; climb direct to cross 31°36′N, 88°46′W at 3000′ MSL, direct to cross 31°36′N, 88°54′30″W at 5000′ MSL. In addition to the above, aircraft may climb to 3000′ MSL after 31°33′N, 87°40′W and maintain 3000′ MSL to 31°36′N, 88°54′30″ during the hours 0600Z–1200Z.


Memphis (MEM)
Holly Springs (HLI)
Muscle Shoals (MSL)
Decatur (Ala) (DCU)
0 5 10 20 30 40 50 SM
0 5 10 20 30 40 NM
N
(OB-5) COIL SPRING ENTRY POINT 34°03′ 87°33′
Hamilton (ALA) (HAB)
Birmingham (BHM)
Greenwood (Miss) (GRW)
Columbus (Miss) (UBS)
Tuscaloosa (TCL)
Brookwood (BWA)
Jackson (Miss) (JAN)
Meridian (MEI)
Selma (SEM)
Kewanee (EWA)
Laurel (LUL)
Hattiesburg (HBG)
McComb (MCB)
SHORT LOOK
EXIT POINT 31°35′ 89°14′
ALTERNATE ENTRY POINT 31°34′ 88°10′
Greene County (GCV)
Monroeville (MVC)
Mobile (MOB)
24 NM
8000
5000
2000
3000
10000
FL 200
206
028
V54
V54N
V54S
V176
V176N
V7
V57
V325
V9
V9E
V9W
V278
V278S
V245
V18
V18N
V18S
V154
V11
V194
V455
V455E
V222
V209
V20
V20N
V70
V464
V205
V66
V115
21 JUL 1966

Short Look—After passing 31°36′N, 88°54′30″W aircraft shall operate through the bomb run corridor at 5000′ MSL. In addition, aircraft may operate through the bomb run corridor at 3000′ MSL during the hours 0600Z–1200Z. (The bomb run corridor is 4 NM either side centerline from 31°36′N, 88°54′30″W to 31°35′N, 89°14′ W.) After exiting the route at 31°35′N, 89°14′W, aircraft shall cross 31°36′N, 89°30′W at 5000′ MSL; start climb direct to cross 31°37′N, 89°56′W at 14,000′ MSL (reporting point), maintain 14,000′ MSL direct 31°33′N, 90°25′W; start climb direct 31°32′N, 90°36′W, turn right to intercept Jackson, Miss. VORTAC 206° radial 56 NM fix (31°42′N, 90°44′W) at FL 200; maintain FL 200 via 206 radial to the 41 NM fix (31°55′N, 90°35′W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35′N, 89°14′W, turn right, cross 31°42′N, 89°22′W at 5000′ MSL, maintain 5000′ MSL, turn right to 31°49′N, 89°14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W; turn right, cross 31°40′N, 88°03′W at 3000′ MSL; continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route. Aircraft may proceed at 5000′ MSL from 31°48′N, 88°27′W; direct 31°48′N, 87°57′W; turn right descend to cross 31°41′N, 87°49′W at 3000′ MSL; continue turn to cross 31°34′N, 87°57′W at 2000′ MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: From 32°31′N, 87°45′W to 31°33′N, 87°52′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18′15″N, 90°15′29″W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 15 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000′ MSL; cross 45 NM fix at 14,000′ MSL; turn right, cross 32°01′N, 89°35′W at 10,000′ MSL, maintain 10,000′ MSL. turn right, 32°01′N, 89°27′W, direct 31°49′N, 88°55′W; descend direct, cross 31°48′N, 88°39′W at 6000′ MSL; direct, cross 31°48′N, 88°27′W at 5000′ MSL, maintain 5000′ MSL direct 31°48′N, 88°10′W; turn right cross 31°40′N, 88°03′W at 3000′ MSL continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route.

Route Width—The entire route is reduced to 4 NM either side of route centerline except on the south side from 31°36′N, 88°46′W to 31°36′N, 88°54′30″W which is reduced to 2 NM.

Hours of Operation—24 hours per day, 7 days a week.

MONTANA/NORTH DAKOTA

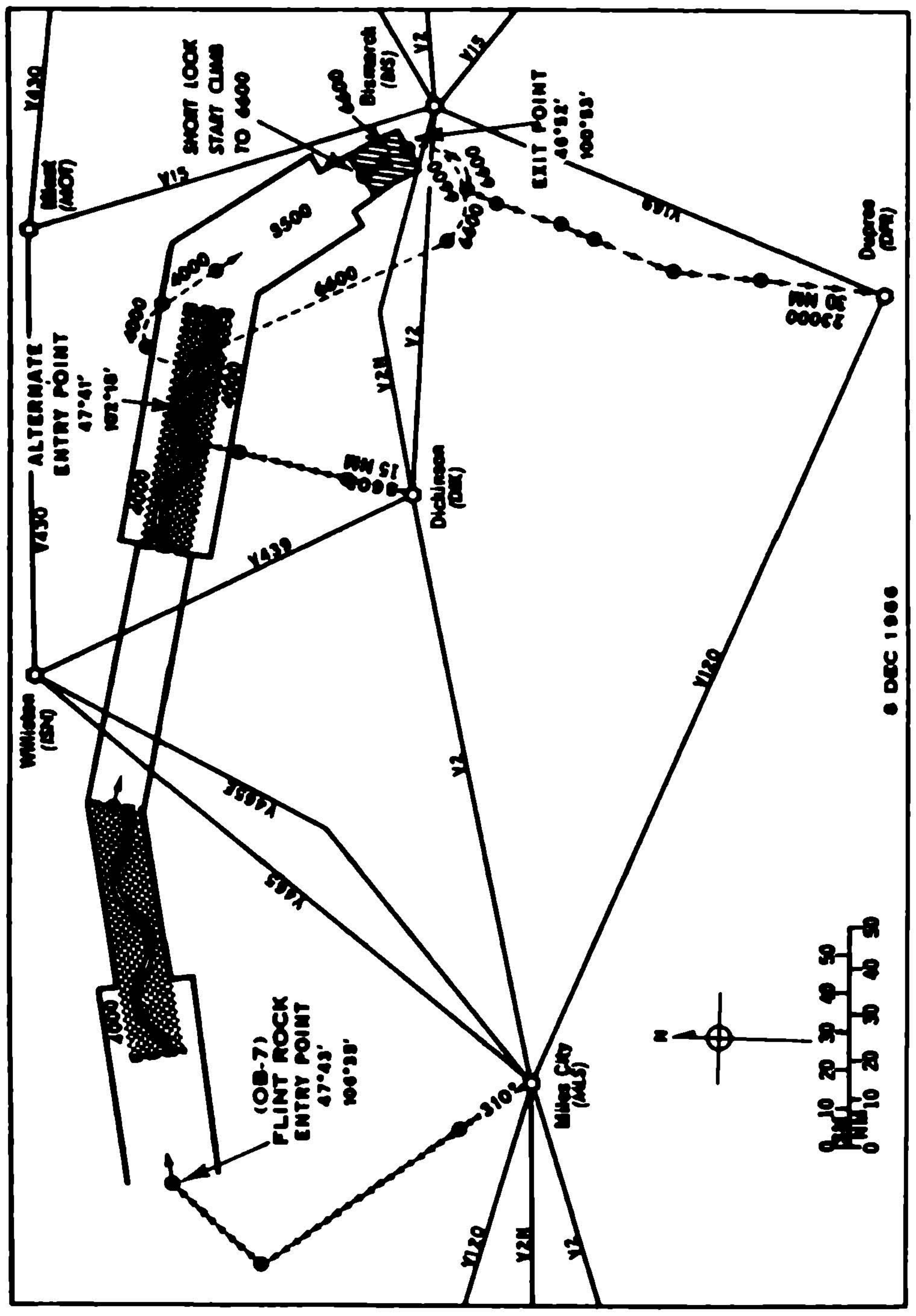
FLINT ROCK OB–7

Revised Effective March 27, 1966

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40′N, 106°14′W; then descend to cross 47°24′N, 107°00′W at or above 6000′ MSL; then continue descent so as to cross the route entry point, 47°43′N, 106°35′W, at 4000′ MSL; then at 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MSL direct 47°35′N, 101°31′W; then descend to 3500′ MSL direct 47°02′N, 101°02′W.

Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 4 NM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53'W); then maintaining 6600' MSL turn right direct 46°39'N, 101°07'W; then start climb to FL 230 direct to 45°53'N, 101°35'W; direct to Dupree VORTAC, climbing so as to cross 46°30'N, 101°12'30"W at or above 8,000' MSL; crossing 46°19'N, 101°19'W at or above 11,000' MSL; crossing 46°13'N, 101°23'W at or below FL 190; crossing 45°53'N, 101°35'W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52'N, 100°53'W maintain 6600' MSL direct 46°39'N, 101°07'W; then at 6600' MSL make a right turn direct to 46°43'N, 101°24'W; then at 6600' MSL direct 47°40'N, 102°00'W the descending so as to cross 47°50'N, 101°56'W at 4000' MSL; then continue turn direct 47°47'N, 101°42'W; then direct at 4000' MSL to 47°35'N, 101°31'W, thence via the published route.


V430
V15
Minot (MOT)
SHORT LOOK START CLIMB TO 6600
6600
Bismarck (BIS)
V2
V15
EXIT POINT 46°52' 100°53'
V169
3500
4000
6400
6600
ALTERNATE ENTRY POINT 47°41' 102°18'
V2B
V2
15 NM
6600
Dickinson (DIK)
Dupree (DPR)
23000 30 NM
V439
V430
Williston (ISN)
V491E
V491
V120
V2
8 DEC 1966
(OB-7) FLINT ROCK ENTRY POINT 47°43' 106°28'
4000
3100
Miles City (MLS)
N
SM 0 10 20 30 40 50
NM 0 10 20 30 40 50
V120
V2B
V2

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 47°48'N, 105°53'W to 47°57'N, 104°30'W and from 47°47'N, 103°03'W to 47°37'N, 101°45'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000' MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000' MSL, or assigned flight level/ altitude, direct to a point 15 NM north of the Dickinson VORTAC (DIK 360/15); then descend direct so as to cross 47°31'N, 102°32'W at 8,000' MSL; then descend direct so as to cross 47°42'30"N, 102°27'W at 6,000' MSL; then a descending right turn so as to cross 47°41'N, 102°18'W at 4000' MSL, thence via the published route.

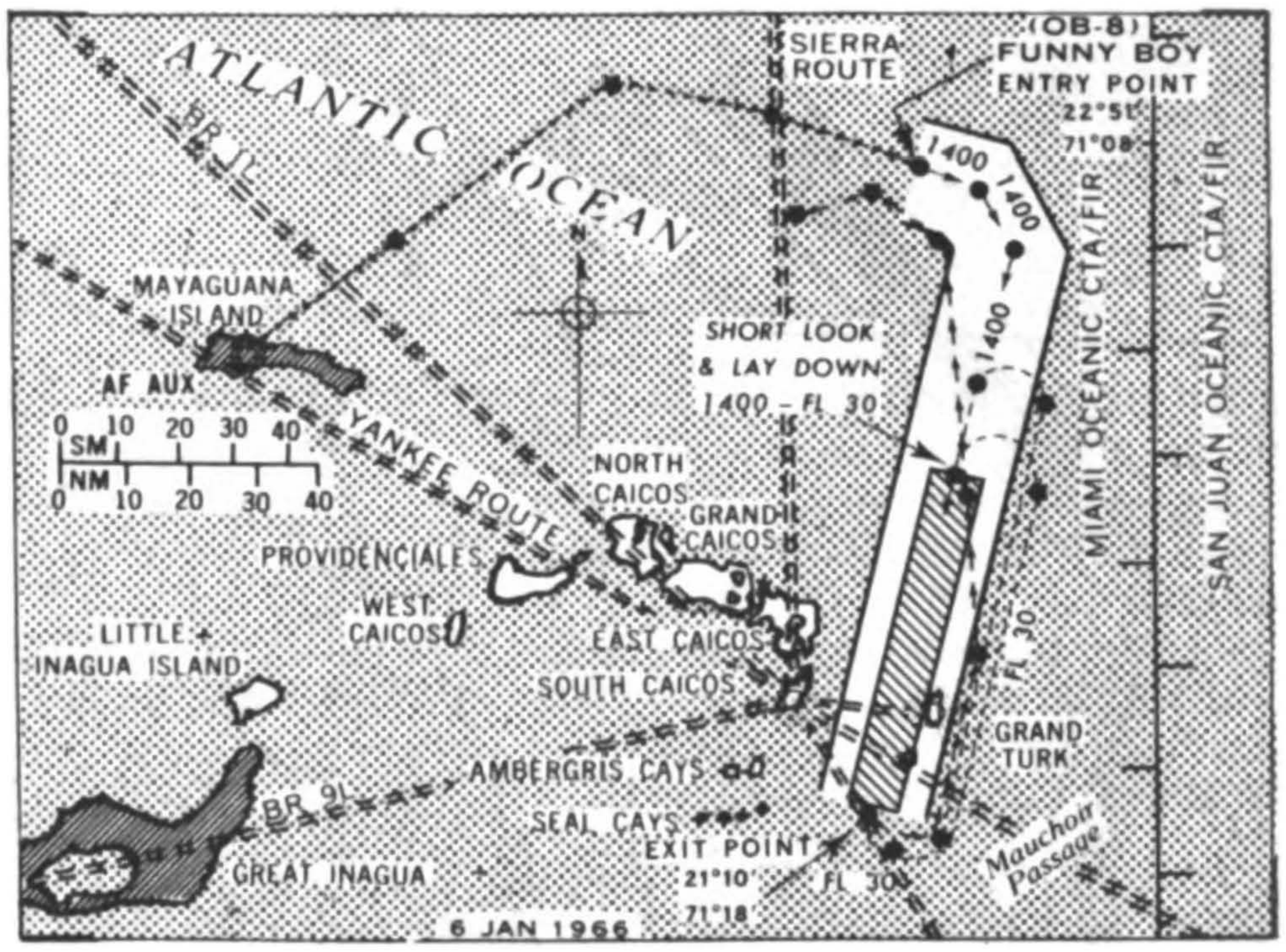
Route Width—The route width is reduced to 4 NM on either side of centerline from 47°50'N, 105°30'W to 47°-47'N, 103°03'W and from 47°07'N, 101°06'W to 46°52'N, 100°53'W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY OB-8

Revised Effective February 6, 1966

Aircraft shall cross 22°23'N, 73°02'W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned to 22°41'N, 72°35'W (reporting point); start descent, cross 23°05'N, 72°00'W at FL 150; right turn, cross 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 71°08'W at 1400' MSL (the route entry point); maintain 1400' MSL direct 22°48'N, 70°58'W; turn right to 22°39'N, 70°53'W; direct 22°04'N, 71°03'W.


ATLANTIC OCEAN
BR 11
SIERRA ROUTE
(OB-8) FUNNY BOY ENTRY POINT 22°51' 71°08'
1400
1400
1400
MAYAGUANA ISLAND
AF AUX
SHORT LOOK & LAY DOWN 1400 - FL 30
MIAMI OCEANIC CTA/FIR
SAN JUAN OCEANIC CTA/FIR
0 10 20 30 40 SM
NM 0 10 20 30 40
YANKEE ROUTE
NORTH CAICOS
GRAND CAICOS
PROVIDENCIALES
WEST CAICOS
LITTLE INAGUA ISLAND
EAST CAICOS
SOUTH CAICOS
FL 30
GRAND TURK
AMBERGRIS CAYS
BR 91
SEAL CAYS
EXIT POINT 21°10' 71°18'
FL 30
Mauchoir Passage
GREAT INAGUA
6 JAN 1966

Short Look and Lay Down—After passing 22°04'N, 71°-03'W, aircraft shall maintain between 1400' and FL 30 through the bomb run corridor (4 NM either side of centerline from 22°04'N, 71°03'W to 21°10'N, 71°18'W). After exiting the route at 21°10'N, 71°18'W, aircraft shall turn left, cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W, direct 21°35'N, 71°00'W; start climb, cross 22°00'N, 71°02'W at FL 110 or above cross 22°40'N, 71°06'W at FL 250 or above; left turn to 22°48'N, 71°16'W; cross 22°45'N, 71°30'W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°10'N, 71°18'W, turn left cross 21°03'N, 71°14'W at FL 30; maintain FL 30 to 21°06'N, 71°08'W; direct 22°01'N, 70°53'W; turn left descend to cross 22°04'N, 71°03'W at 1400'; thence via the published route. Aircraft may proceed at FL 30 from 21°06'N, 71°08'W; direct 22°14'N, 70°49'W; turn left descend to cross 22°17'N, 70°59'W at 1400'; thence via the published route.

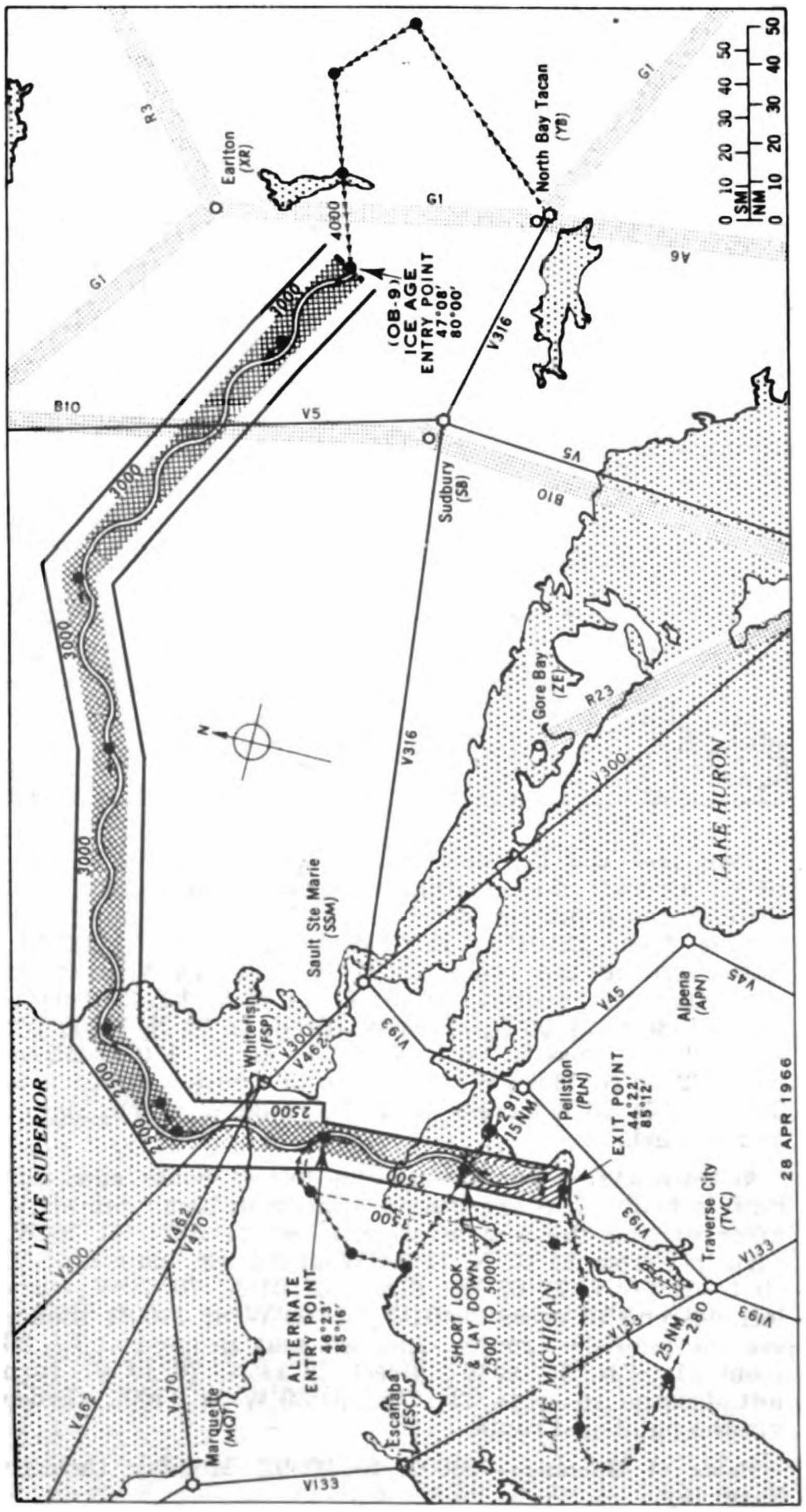
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE OB-9

Revised Effective June 24, 1965

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.



Short Look and Lay Down—After passing 45°48′N, 85°15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (4 NM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500′ above the immediate terrain between the following points: from 47°08′N, 80°00′W to 45°27′N, 85°13′W. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC: then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 4 NM east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

IDAHO/NEVADA

JUMP ROPE OB-42

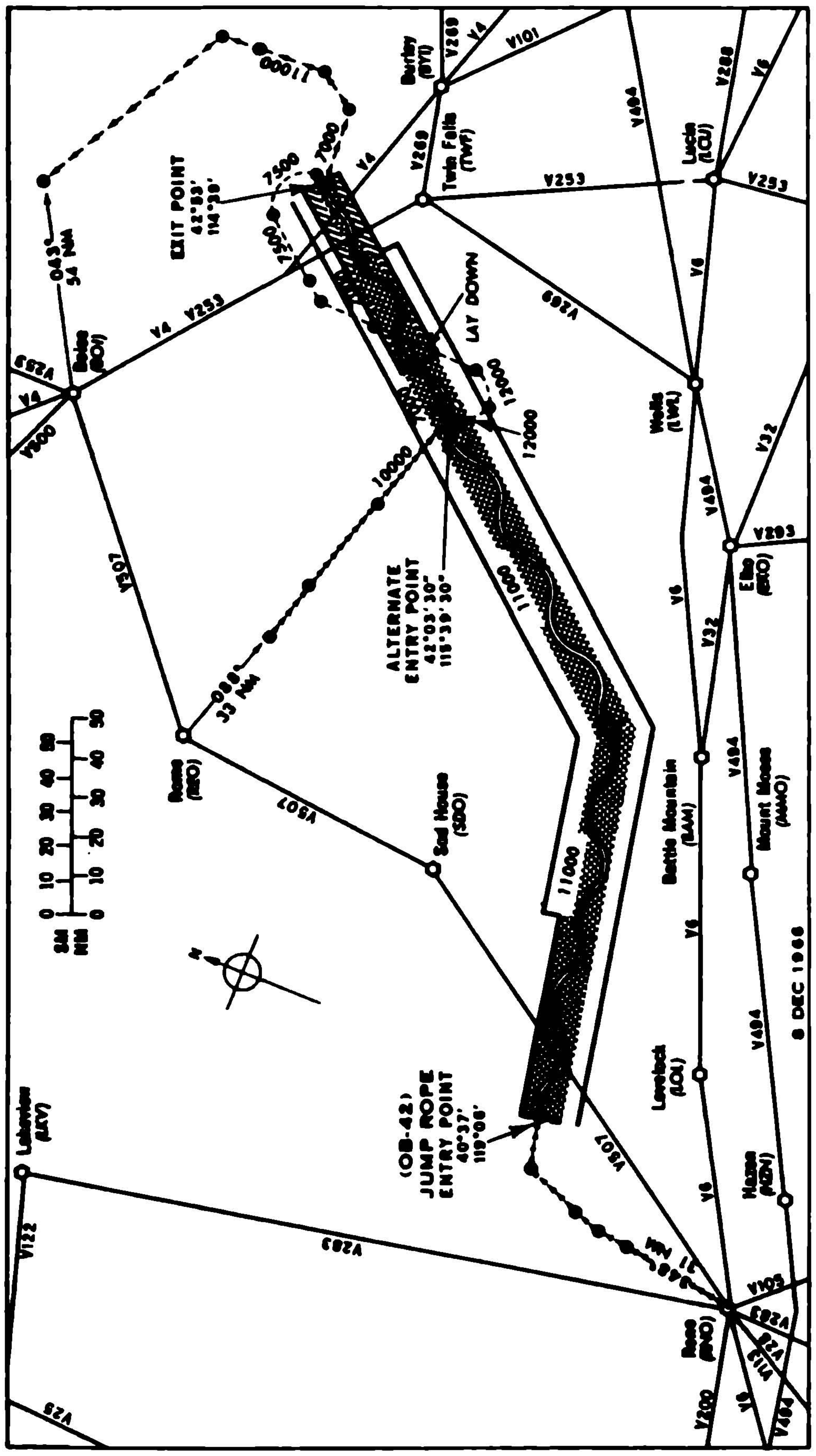
Effective November 20, 1966 thru March 25, 1967

Aircraft shall cross the Reno, Nevada, VORTAC at FL 230 or as assigned by ARTCC; then at FL 230, or assigned altitude, proceed via the 348° radial of the Reno, Nevada, VORTAC until 31 nautical miles north (40°03′N, 119°35′W); then descend direct to 40°12′N, 119°34′W; then continue descent direct so as to cross 40°20′N, 119°30′W at FL180; then continue descent direct so as to cross 40°34′N, 119°23′W at or below 17,000′ MSL; then descend direct so as to cross the low level entry point at 40°37′N, 119°06′W at 11,000′ MSL; then at 11,000′ MSL direct to 40°56′N, 116°59′W; then at 11,000′ MSL direct to 42°03′30″N, 115°39′30″W; then descend so as to cross the entry to the bomb run corridor at 42°17′N, 115°23′W at 7,000′ MSL.

Lay Down—After passing 42°17′N, 115°23′W, aircraft shall maintain 7,000′ MSL through the bomb run corridor (4 nautical miles either side of centerline from 42°17′N, 115°23′W to 42°53′N, 114°39′W). After exiting the route (contact Salt Lake Center as soon as practicable on P125.6 S317.5) at 42°53′N, 114°39′W, aircraft shall turn right maintaining 7,000′ MSL direct to 42°54′N, 114°10′W then turn left climbing so as to cross 43°03′N, 114°01′W at 11,000′ MSL; then at 11,000′ MSL direct to 43°20′N, 114°01′W; then climb direct to 43°30′N, 114°01′

W; then turn left climbing so as to cross the Boise, Iadho, VORTAC 043° radial 54 nautical mile DME fix at FL 230.

Re-Entry—After completing the initial bomb run, aircraft schedule to execute an additional bomb run shall, after passing 42°53'N, 114°39'W turn left climbing so as to cross 42°56'N, 114°37'W at 7500' MSL; then at 7500' MSL continue turn to 43°02'30''N, 114°53'W. (Contact Mtn Home RAPCON on 259.1 mc); then at 7500' MSL direct to 42°48'N, 115°11'W; then climb direct so as to cross 42°44'N, 115°16'W at 8,000' MSL; then turn left and climb to 42°30'N, 115°18'30''W; then continue climb direct so as to cross 42°02'N, 115°19'W at 12,000' MSL; then at 12,000' MSL turn right to 41°55'N, 115°30'W; then at 12,000' MSL continue turn to 42°07'N, 115°35'W; then descend direct so as to cross 42°17'N, 115°23'W at 7000' MSL; thence via the published route.



EXIT POINT 42°53' 114°39'
ALTERNATE ENTRY POINT 42°03'30" 115°39'30"
(OB-42) JUMP ROPE ENTRY POINT 40°37' 119°06'
LAY DOWN
043° 54 NM
088° 33 NM
018° 31 NM
7500
7000
11000
10000
12000
Burley (BYI)
Twin Falls (TWF)
Lucin (LCU)
Boise (BOI)
Wells (LWL)
Elko (EKO)
Rome (REO)
Sod House (SDO)
Battle Mountain (BAM)
Mount Moses (MMO)
Lovelock (LOL)
Lakeview (LKV)
Hazen (HZN)
Reno (RNO)
V4
V101
V269
V288
V6
V484
V253
V500
V32
V293
V307
V122
V283
V105
V113
V28
V200
SM
NM
0 10 20 30 40 50
N
8 DEC 1966

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 40°37'N, 119°06'W to 42°53'N, 114°39'W. VFR operations shall not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Rome, Oregon, VORTAC at FL 230 or as assigned by ARTCC, then at FL 230 or assigned FL, proceed via the 088° radial until 33 nautical miles east (42°25'N, 117°10'W); then descend direct so as to cross 42°20'N, 116°48'W at FL 200; then descend direct so as to cross 42°12'N, 116°14'30''W at 10,000' MSL then at 10,000' MSL direct to 42°03'30''N, 115°39'30''W; thence via the published route.

Route Width—The VFR route width is reduced to 2 nautical miles on the north side of centerline from 40°47'N, 118°00'W to 40°51'N, 117°32'W and from 41°21'N, 116°30'W to 41°37'N, 116°11'W. The VFR route width is reduced to 2 nautical miles on both sides of centerline from 42°37'N, 114°58'W to 42°53'N, 114°39'W. The IFR route width is reduced to 4 nautical miles on the north side of centerline from 40°37'N, 119°06'W to 40°47'N, 118°00'W and to 4 nautical miles on the southeast side of centerline from 42°37'N, 114°58'W to 42°53'N, 114°39'W.

Hours of Operation—24 hours daily, 7 days a week.

NEVADA

LITTLE SATIN OB-10

Revised Effective January 2, 1966

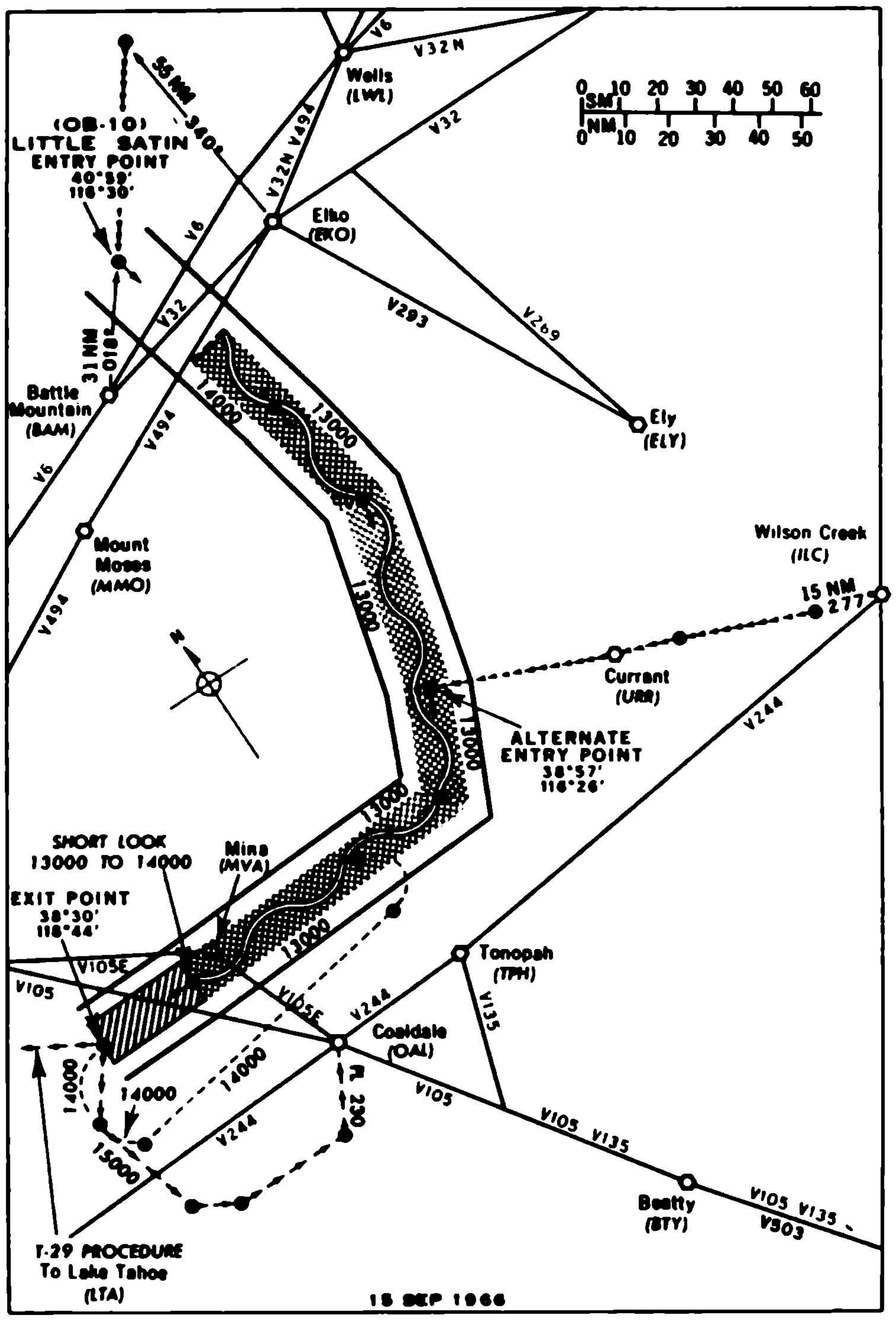
Aircraft shall cross 41°40'N, 115°49'W (Elko VORTAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59'N, 116°30'W (Battle Mountain VOR 018°/31) at 14,000' MSL, then 14,000' MSL direct 40°10'N, 116°17'W; then descend to 13,000' MSL direct 39°42'N, 116°10'W, then 13,000' MSL direct 38°57'N, 116°26'W, then 13,000' MSL direct 38°34'N, 116°40'W, then 13,000' MSL direct 38°31'N, 118°12'W.

Short Look—After passing 38°31'N, 118°12'W aircraft shall operate between a maximum altitude of 14,000' MSL and a minimum of 13,000' MSL thru the bomb run corridor (4 NM either side of centerline from 38°31'N, 118°12' W to 38°30' N, 118°44' W). After exiting the route at 38°30'N, 118°44'W aircraft shall start climb to cross 38°15'N, 118°57'W at 15,000' MSL; then maintain 15,000' MSL direct 37°48'N, 118°48'W; then climb so as to cross 37°42'N, 118°36'W at or above 17,000' MSL; then climb direct to cross 37°42'N, 118°00'W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30'N, 118°44'W, maintain 14,000' MSL direct 38°15'N, 118°57'W, then 14,000' direct 38°06'N, 118°50'W direct 38°19'N, 117°12'W; then descend direct to cross 38°33'N, 117°12'W at 13,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 40°30′N, 116°22′W to 38°31′N, 118°12′W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21′N, 114°41′W); then descend direct to cross 38°34′N, 115°18′W at or below 15,000′ MSL; then descend direct via the Currant, Nev. VOR to cross 38°57′N, 116°26′W at 13,000′ MSL, thence via the published route.


(OB-10)
LITTLE SATIN
ENTRY POINT
40°59′
116°30′
55 NM
340°
31 NM
018°
Wells (LWL)
Elko (EKO)
Battle Mountain (BAM)
Mount Moses (MMO)
Ely (ELY)
Wilson Creek (ILC)
15 NM
277°
Currant (URR)
ALTERNATE ENTRY POINT
38°57′
116°26′
V6
V32N
V32
V494
V293
V269
V244
V105
V105E
V135
V503
14000
13000
15000
FL 230
SHORT LOOK
13000 TO 14000
Mina (MVA)
EXIT POINT
38°30′
118°44′
Tonopah (TPH)
Coaldale (OAL)
Beatty (BTY)
T-29 PROCEDURE
To Lake Tahoe
(LTA)
N
0 10 20 30 40 50 60
SM
NM
0 10 20 30 40 50
15 SEP 1966

T–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15′N, 114°23′W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30′N, 118°44′W exit point of the bomb run corridor; then climb to 14,000′ MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11′ N, 120°16′W).

Hours of Operation—24 hours daily, 7 days a week.

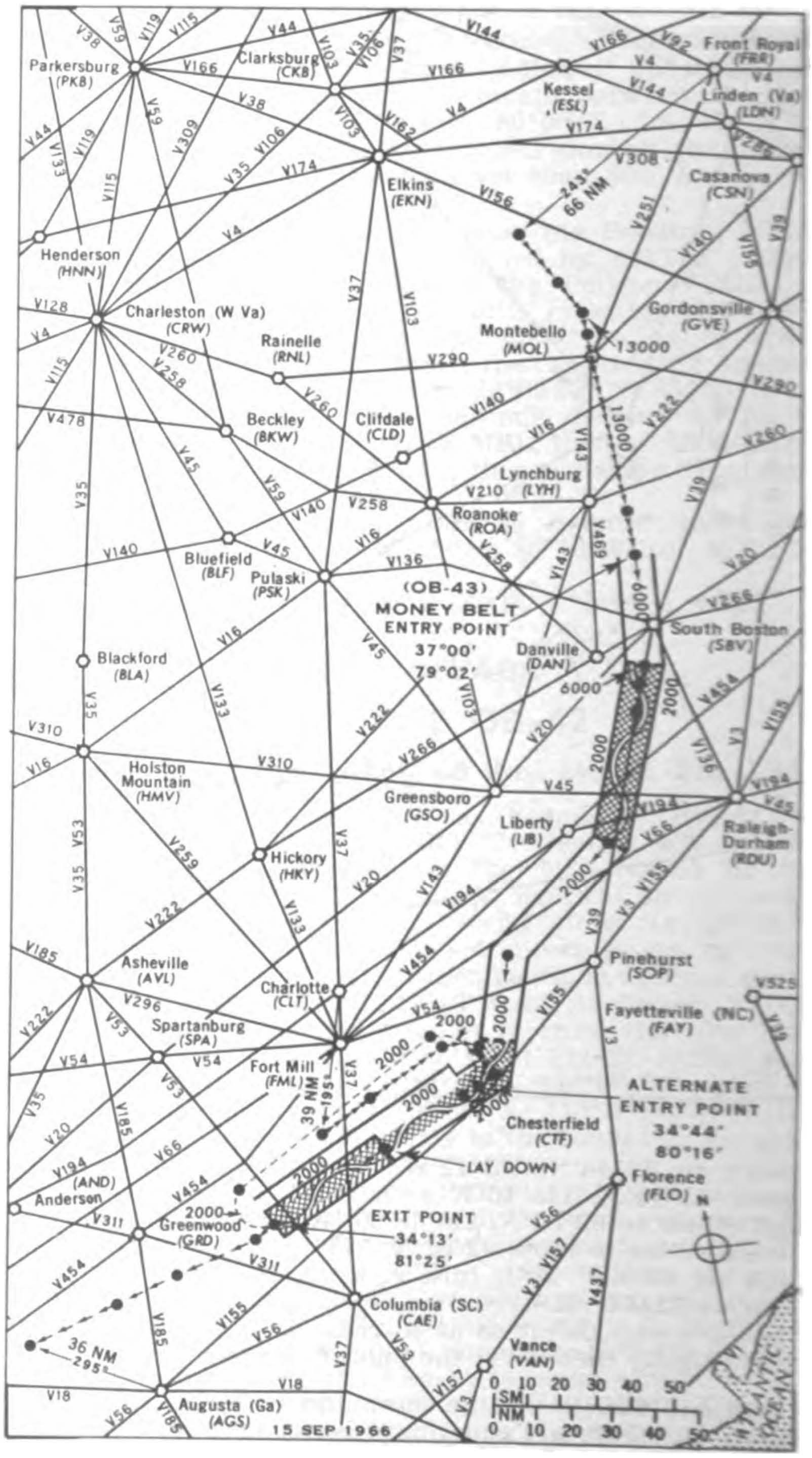
NORTH CAROLINA/SOUTH CAROLINA/VIRGINIA

MONEY BELT OB–43

Effective October 3, 1966 thru March 25, 1967

Aircraft shall cross the Front Royal, Va. VORTAC 243/66 DME Fix (38°29′N, 79°22′W) at FL 240, or as assigned by ARTCC, then descend direct so as to cross 38°15′N, 79°12′W at or below FL 200, then descend direct so as to cross 38°06′N, 79°06′W at 13,000′ MSL; then at 13,000′ MSL direct to 38°00′N, 79°05′W; then at 13,000′ MSL direct to 37°12′N, 79°02′W; then descend direct so as to cross 37°00′N, 79°02′W at 6,000′ MSL (Low Level Entry Point); then at 6,000′ MSL direct to 36°30′N, 79°05′W; then at 6,000′ MSL direct to 36°25′N, 79°07′W; then descend direct so as to cross 36°17′N, 79°10′W at 2,000′ MSL; then at 2,000′ MSL direct to 35°44′N, 79°23′W; then at 2,000′ MSL direct to 35°17′N, 80°01′W; then at 2,000′ MSL direct to 34°46′N, 80°11′W; then at 2,000′ MSL direct to 34°30′N, 80°47′W.

Lay Down—After passing 34°30′N, 80°47′W, aircraft shall maintain 2,000′ MSL through the bomb run corridor (4 NM either side of centerline from 34°30′N, 80°47′W to 34°13′N, 81°25′W). After exiting the route at 34°13′ N, 81°25′W, aircraft shall climb so as to cross 34°10′N, 81°32′W at or above 5,000′ MSL (contact Atlanta Center on 322.4 mc); then climb direct so as to cross 34°03′N, 81°58′W at or above 12,000′ MSL; then climb direct so as to cross 33°57′N, 82°18′W at 17,000′ MSL;


Parkersburg (PKB)
Clarksburg (CKB)
Kessel (ESL)
Front Royal (FRR)
Linden (Va) (LDN)
Casanova (CSN)
Elkins (EKN)
243°
66 NM
Henderson (HNN)
Charleston (W Va) (CRW)
Rainelle (RNL)
Montebello (MOL)
13000
Gordonsville (GVE)
Beckley (BKW)
Clifdale (CLD)
Lynchburg (LYH)
Roanoke (ROA)
Bluefield (BLF)
Pulaski (PSK)
(OB-43)
MONEY BELT
ENTRY POINT
37°00′
79°02′
Danville (DAN)
South Boston (SBV)
6000
2000
Blackford (BLA)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
Asheville (AVL)
Charlotte (CLT)
Pinehurst (SOP)
Fayetteville (NC) (FAY)
Spartanburg (SPA)
Fort Mill (FML)
39 NM
195°
ALTERNATE
ENTRY POINT
34°44′
80°16′
Chesterfield (CTF)
LAY DOWN
Florence (FLO)
N
(AND)
Anderson
Greenwood (GRD)
EXIT POINT
34°13′
81°25′
Columbia (SC) (CAE)
36 NM
295°
Vance (VAN)
Augusta (Ga) (AGS)
ATLANTIC OCEAN
0 10 20 30 40 50
SM
NM
0 10 20 30 40 50
15 SEP 1966

then climb direct so as to cross 33°48'N, 82°47'W at FL 240 (295/36 Augusta, Ga. VORTAC).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 34°13'N, 81°25'W, maintain 2,000' MSL and turn right to 34°24'N, 81°35'W; then at 2,000' MSL direct to 34°54'N, 80°28'W; then at 2,000' MSL turn right to intercept the route at 34°42'N, 80°20' W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000'; visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: From 36°30'N, 79°05'W to 35°44'N, 79°23' W; and from 34°56'30''N, 80°07'30''W to 34°13'N, 81°-25'W. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross 34°35'N, 81°07'W (195/39 DME Fix of the Charlotte, North Carolina, VORTAC) at FL 240, or as assigned by ARTCC; then descend direct so as to cross 34°44'N, 80°49'30''W at 16,000' MSL; then descend direct so as to cross 34°55'30''N, 80°25'W at 5,000' MSL; then turn right and descend so as to cross 34°54'N, 80°14'30''W at 2,000 MSL; then at 2,000' MSL continue turn to 34°44'N, 80°16'W; thence via the published route.

Route Width—The IFR route width is reduced to 4NM either side of centerline from 37°00'N, 79°02'W to 34°-42'N, 80°20'W and to 4 NM on the south side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

The VFR Route width is reduced to 2NM on either side of centerline from 34°42'N, 80°20'W to 34°13'N, 81°25'W.

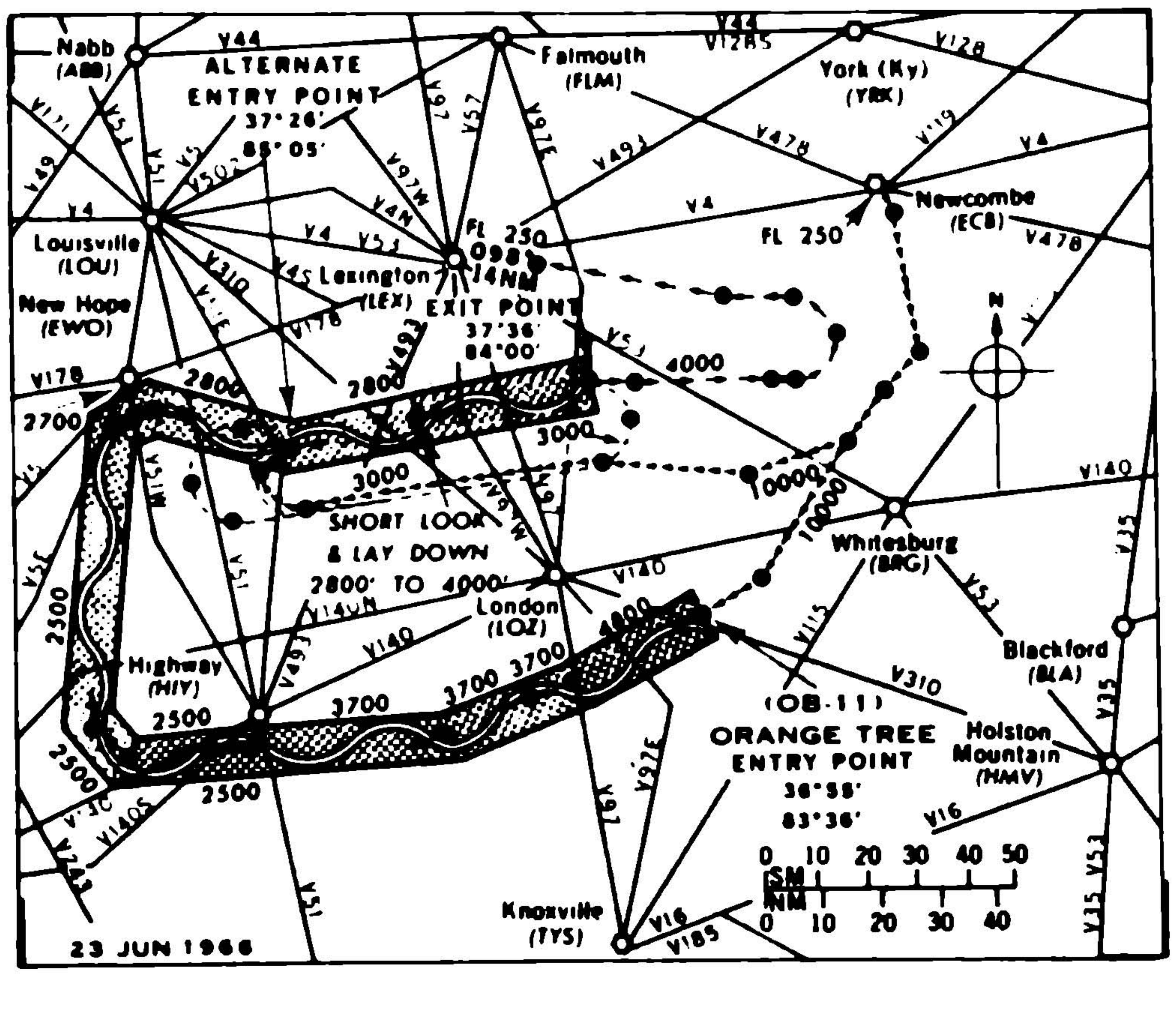
Hours of Operation—Primary Entry from 2300Z to 1300Z and from 1400Z to 2000Z 7 days per week. Alternate Entry from 2300Z to 1300Z 7 days per week.

KENTUCKY/TENNESSEE

ORANGE TREE OB–11

Revised Effective June 19, 1966

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05'N, 82°53'W; then start descending to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°01'N, 83°24'W; then start descent so as to cross route entry at 36°55'N, 83°36'W at 4,800 feet MSL; then at 4,800 feet MSL direct 36°45' N, 84°01'W; then descend so as to cross 36°41'N, 84°14' W at 3,700 feet MSL; then at 3,700 feet MSL direct 36°-35'N, 84°32'W; direct 36°32'N, 85°15'W; descend so as to cross 36°32'N. 85°21'W at 2,500 feet MSL; then at 2,500 feet MSL direct 36°31'N, 85°40'W; then turn right to 36°36'N, 85°49'W; direct 37°28'N, 85°44'W; then turn right climb to cross 37°32'N, 85°35'W at 2800' MSL: then at 2800' MSL direct 37°26'N, 85°05'W; then at 2800 feet MSL direct 37°30'N, 84°38'W.


Nabb (ABB)
V44
ALTERNATE ENTRY POINT 37°26' 85°05'
Falmouth (FLM)
V44
V128S
York (Ky) (YRK)
V128
V171
V51
V97
V57
V97E
V493
V478
V19
V4
V49
V5
V50
V97W
V4N
Newcombe (ECB)
Y4
Louisville (LOU)
V4
V53
FL 250
098
14NM
FL 250
V478
V310
V45
Lexington (LEX)
New Hope (EWO)
V178
EXIT POINT 37°36' 84°00'
N
V493
V53
4000
V178
2800
2800
2700
3000
3000
10000
10000
V140
SHORT LOOK & LAY DOWN 2800' TO 4000'
Whitesburg (BRG)
V140
V140N
London (LOZ)
V53
2500
4000
Highway (HIY)
V140
3700
3700
V115
Blackford (BLA)
V310
2500
3700
(OB-11) ORANGE TREE ENTRY POINT 36°55' 83°36'
Holston Mountain (HMV)
V35
2500
2500
V140S
V16
V243
V51
V97
V97E
0 10 20 30 40 50 SM
NM 0 10 20 30 40
Knoxville (TYS)
V16
V185
V35 V53
23 JUN 1966

Short Look and Lay Down—After passing 37°30'N, 84°38' W aircraft shall maintain between 2800' and 4000'. feet MSL through the bomb run corridor (4 NM either side of centerline from 37°30'N, 84°38'W to 37°36'N, 84°00'W). After exiting the route at 37°36'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 4,000 feet MSL; then at 4,000 feet MSL direct 37°36'N, 83°20'W; then start climb direct 37°36'N, 83°15'W; cross 37°44'N, 83°-05'W at or below 9,000 feet MSL; continue climb direct 37°50'N, 83°15'W; then climbing direct so as to cross 37°51'N, 83°30'W at or below 17,000 feet MSL; then via the Lexington VORTAC 098 radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36'N, 84°00'W; turn right so as to cross 37°30'N, 83°50'W at 3,000 feet MSL; then at 3 000 feet MSL continue right turn to 37°22'N, 83°58'W; direct 37°13'N, 85°17'W; then turn right to 37°19'N, 85°26'W; continue right turn to 37°28' N, 85°16'W; descend to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route. Aircraft may proceed at 3,000 feet from 37°22'N, 83°58'W; direct 37°-15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800'. feet MSL; thence via "Orange Tree" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000 feet, visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes and 800 feet above the immediate terrain between the following points: from 36°55'N, 83°36'W to 37°36'N, 84°00'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53' W; then start descent so as to cross 37°41'N, 82°48'W at 17,000 feet MSL; cross 37°34'N, 82°55'W at 14,000 feet MSL; cross 37°25'N, 83°04'W at 10,000 feet MSL; then at 10,000 feet MSL direct 37°19'N, 83°25'W; then start descent so as to cross 37°22'N, 83°58'W at 3.00 feet MSL; then at 3,000 feet MSL direct 37°15'N, 85°03'W; turn right to 37°21'N, 85°11'W; continue turn, descend so as to cross 37°26'N, 85°05'W at 2800' MSL; thence via the "Orange Tree" route.

Route Width—The IFR route width is reduced to 4 NM either side of centerline. The VFR route width is reduced to 2 NM on the north side of centerline from 37°28'N, 84°52'W to 37°36'N, 84°00'W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

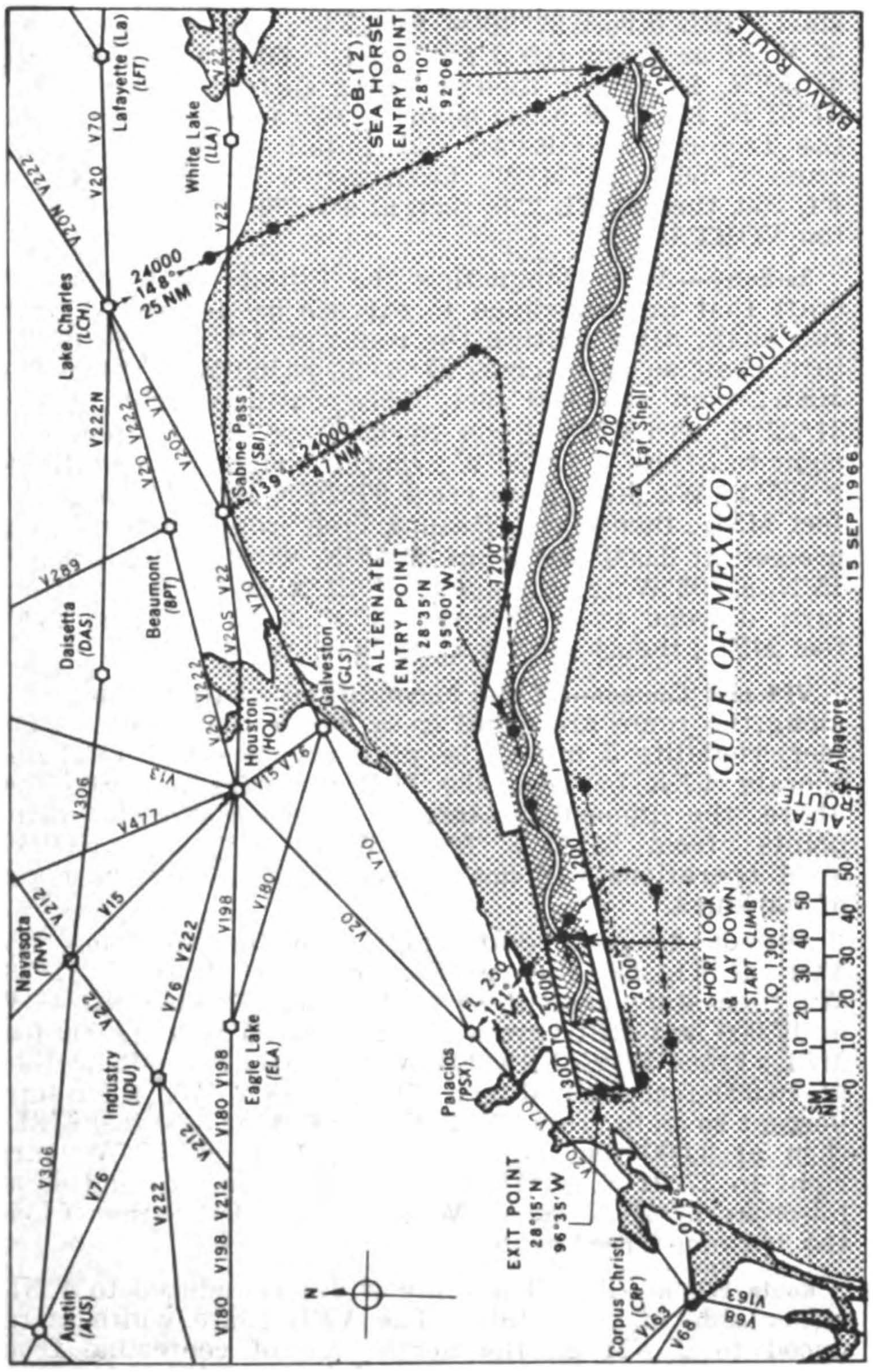
SEA HORSE OB–12

Revised Effective February 27, 1966

Aircraft shall cross the Lake Charles, La. VORTAC at FL 240 or as assigned; maintain FL 240 or as assigned via the Lake Charles VORTAC 148 radial to 25 NM fix;

start descent, cross 29°31'N, 92°47'W at FL 190, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 3000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1200' MSL (low level entry point). Maintain 1200' MSL, turn right to 28°03'N, 92°16'W, direct 28°35'N, 95°00'W. direct 28°24'N, 95°53'W.

Short Look and Lay Down—After passing 28°24'N, 95°53' W climb to 1300' MSL and maintain between 1300' MSL and 5000' MSL through the bomb run corridor (4 NM either side of centerline from 28°24'N, 95°53'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35' W, the route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 121 radial, continue climb via the Palacios VORTAC 121 radial to cross the Palacios VORTAC 121/35 at or below FL 230, continue climb via the 121 radial to cross the Palacios VORTAC 121/18 at FL 250, maintain FL 250 to the Palacios VORTAC.



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°35'W turn left so as to cross 28°05'N, 96°32'W at 2,000' MSL; maintain 2000' MSL direct 28°18'N, 95°15'W, turn left descending so as to intercept the route at 28°31'N, 95°19' W at 1200' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the surface between the following points: From 28°10'N, 92°06'W to 28°19'N, 96°16'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the surface.

Alternate Entry—Aircraft shall cross Sabine Pass, Texas VORTAC at FL 240 or as assigned, then via Sabine Pass VORTAC 139 radial maintaining FL 240 until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°37'N, 94°06'W at 1200' MSL, direct 28°35'N, 95°00'W, thence via the published route.

Route Width—The route width is reduced to 4 NM north of the centerline from 28°30'N, 95°24'W to 28°15'N, 96°35'W.

Hours of Operation—24 hours daily, seven days per week.

SOUTH DAKOTA

SILVER BAY OB–13

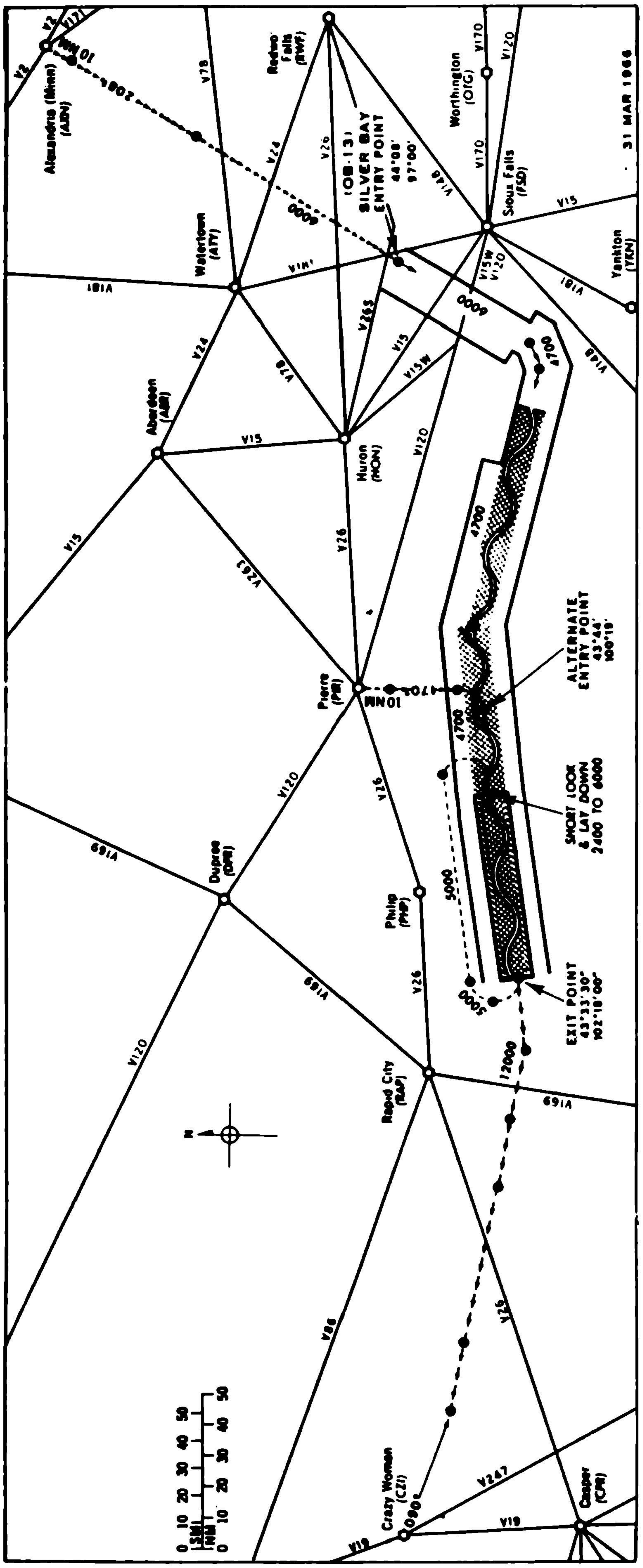
Revised Effective March 27, 1966

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10'N, 96°00'W at 6000' MSL; then at 6000' MSL direct 44°08'N, 97°00'W (low level entry point); then at 6000'MSL direct 43°27'N, 97°37'W; then turn right descending so as to cross 43°24'N, 97°48'W at 4700' MSL; then at 4700' MSL direct 43°47'N, 99°45'W; then at 4700' MSL direct to 43°42'N, 100°56'W.

Short Look and Lay Down—After passing 43°42'N, 100°56'W, aircraft shall maintain between 2400' MSL and 6000' MSL through the bomb run corridor (4 NM either side of centerline from 43°42'N, 100°56'W to 43°33'30''N, 102°18'W). The minimum IFR altitude through the corridor is 4700' MSL. After exiting the route at 43°33'30''N, 102°18'W aircraft shall climb so as to cross 43°30'N. 102°50'W at 12,000' MSL; then at 12,000' MSL direct to 43°34'N, 103°20'W then climb direct so as to cross 43°37'30''N, 103°50'W at FL 180 then climb direct so as to cross 43°46'N, 105°00'W at or below FL 230 then climb direct so as to cross 43°49'N, 105°30'W (CZI 090/42 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33'30''N, 102°18'W turn right and climb or descend so as to cross 43°40'N, 102°29'W, at 5000' MSL; then at 5000' MSL continue turn to 43°47'N, 102°20'W; then at 5000' MSL direct 43°56'N, 100°49'W; then turn right descending so as to intercept the Silver Bay route at 43°42'30''N, 100°48'W at 4700' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points; from 43°28'N, 98°08'W to 43°33'30''N 102°18'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.


Alexandria (Minn) (AXN)
Redwood Falls (RWF)
Worthington (OTG)
Sioux Falls (FSD)
Yankton (YKN)
Watertown (ATY)
(OB-13) SILVER BAY ENTRY POINT 44°08' 97°00'
Aberdeen (ABR)
Huron (HON)
Pierre (PIR)
Dupree (DPR)
Philip (PHP)
Rapid City (RAP)
Crazy Woman (CZI)
Casper (CPR)
ALTERNATE ENTRY POINT 43°44' 100°19'
SHORT LOOK & LAY DOWN 2400 TO 6000
EXIT POINT 43°33'30" 102°18'00"
6000
4700
5000
12000
V2
V171
V78
V24
V26
V170
V120
V148
V15
V181
V169
V263
V15W
V19
V247
31 MAR 1966

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 170° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The IFR route width is reduced to 4NM southeast of centerline from 44°08'N, 97°00'W to 43°29'N, 97°35'W and 4 NM north of centerline between 43°29'N, 97°35'W to 43°32'N, 98°30'W. The VFR route width is reduced to 2 NM on the north side of centerline from 43°41'N, 99°13'W to 43°47'N, 99°45'W.

Hours of Operation—24 hours daily seven days per week.

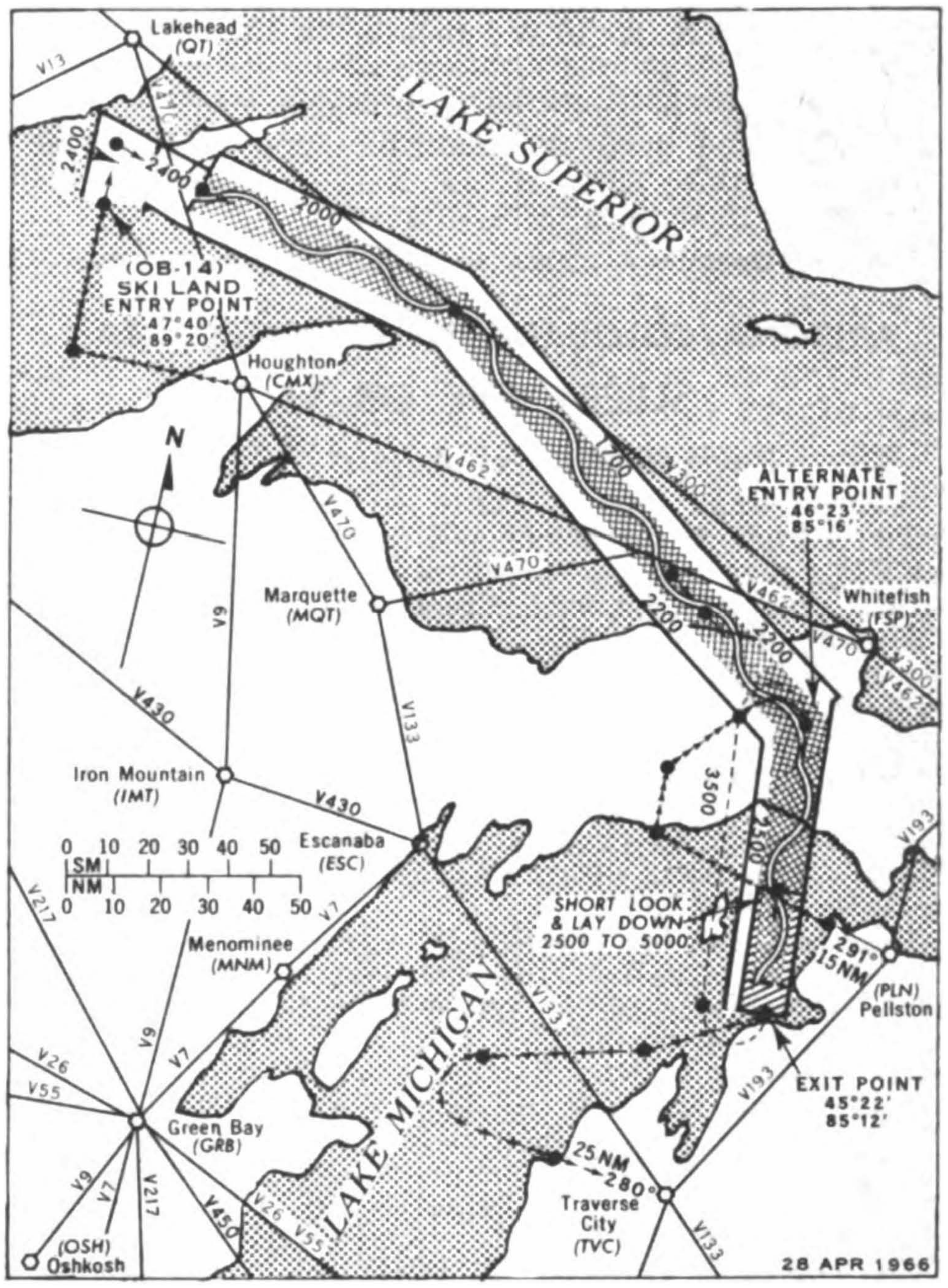
MICHIGAN

SKI LAND OB–14

Revised Effective June 24, 1965

Aircraft shall cross the Houghton, Michigan VOR at FL 200 or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52''N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°48'N, 85°15'W.

Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (4 NM either side


Lakehead (QT)
LAKE SUPERIOR
(OB-14) SKI LAND ENTRY POINT 47°40' 89°20'
Houghton (CMX)
N
Marquette (MQT)
ALTERNATE ENTRY POINT 46°23' 85°16'
Whitefish (FSP)
Iron Mountain (IMT)
Escanaba (ESC)
0 10 20 30 40 50 SM
NM 0 10 20 30 40 50
Menominee (MNM)
SHORT LOOK & LAY DOWN 2500 TO 5000
291° 15NM
(PLN) Pellston
EXIT POINT 45°22' 85°12'
LAKE MICHIGAN
Green Bay (GRB)
25NM 280°
Traverse City (TVC)
(OSH) Oshkosh
2400
2000
1700
2200
3500
V13
V462
V470
V430
V9
V133
V217
V7
V55
V26
V193
V450
28 APR 1966

of centerline from 45°48'N, 85°15'W to 45°22'N, 85°12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: from 47°48'N, 88°55'W to 45°27'N, 85°13'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at FL 200, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30"N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 4 nautical miles west and north of centerline from 47°40'N, 89°20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

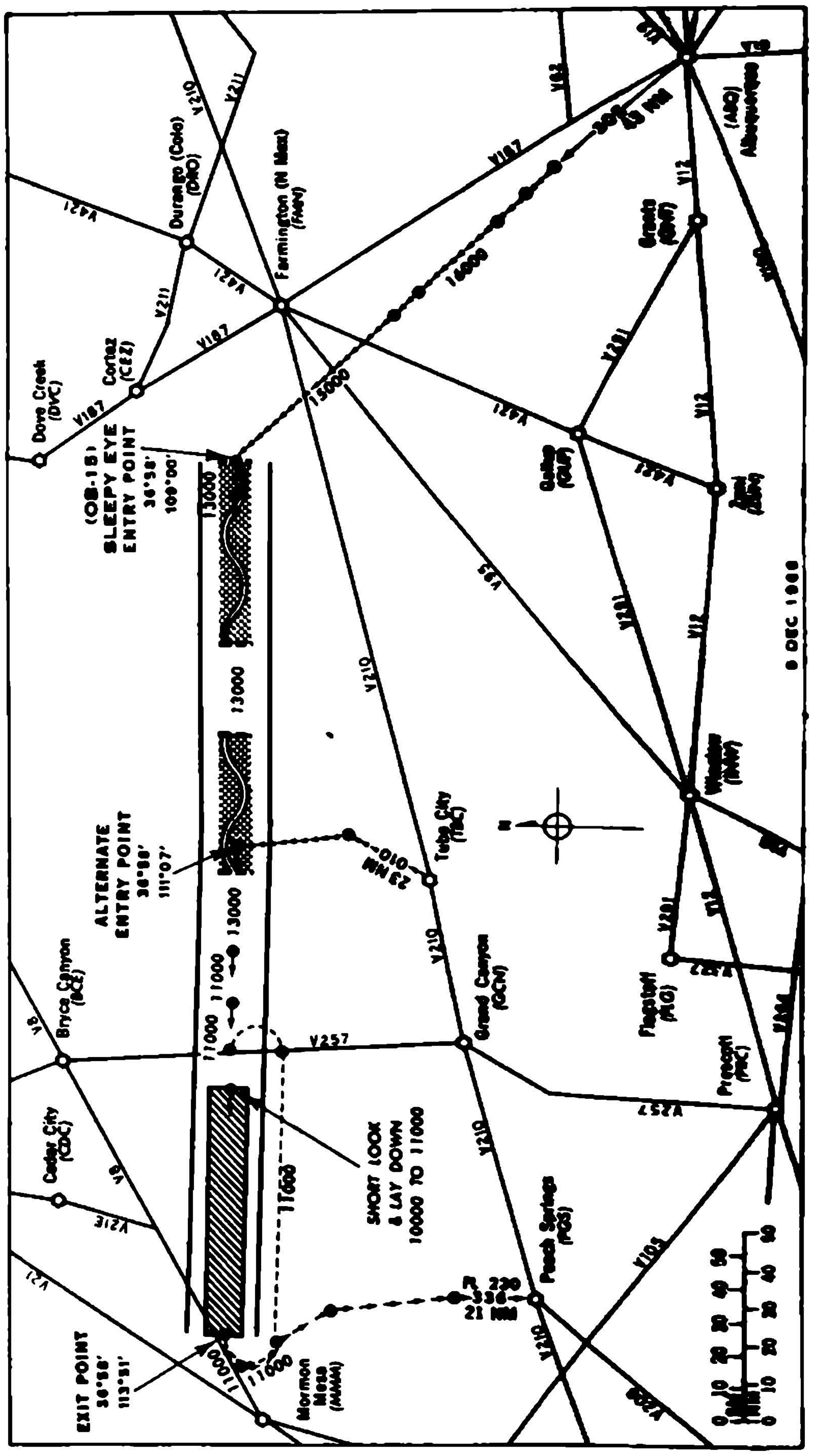
ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE OB-15

Revised Effective August 4, 1966

Aircraft shall cross 35°34'N, 107°24'W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42'N, 107°33'W at FL 210; then descend direct to cross 35°49'N, 107°42'W at 16,000' MSL; then maintain 16,000' MSL direct 36°09'N, 108°04'W; then descend direct to cross 36°16'N, 108°12'W at 15,000' MSL; then 15,000' MSL direct 36°58'N, 109°00'W (low level entry point); then descend direct to cross 36°58'N, 109°10'W at 13,000' MSL; then 13,000' MSL direct 36°58'N, 111°42'W; then descend direct to cross 36°58'N, 112°00'W at 11,000' MSL; then direct to cross 36°58'N, 112°29'W at or below 11,000' MSL.

Short Look and Lay Down—After passing 36°58'N, 112°29'W aircraft shall operate between 10,000' and 11,000' MSL through the bomb run corridor (4 NM either side of centerline from 36°58'N, 112°29'W to 36°58'N, 113°51'W). After exiting the route at 36°58'N, 113°51'W aircraft shall turn left climbing to cross 36°53'N, 114°00'W at 11,000' MSL; then maintain 11,000' MSL direct to 36°44'N, 113°53'W; then climb via direct to cross 36°30'N, 113°42'W at or below 17,000' MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58'N, 113°36'W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37'30"N, 113°32'W).



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58'N, 113°51'W, turn left via direct to cross 36°53'N, 114°00'W at 11,000 MSL; then 11,000' MSL direct 36°44'N, 113°53'W; then 11,000' MSL direct 36°44'N, 112°16'W; then turn left direct to cross 36°58'N, 112°16'W at or below 11,000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate VFR between the IFR altitudes indicated on the chart and 800' above the immediate terrain between the following points: from 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°58N, 111°16'W. VFR operations will not be conducted during the hours of darkness.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07'30"N, 111°16'W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then

maintain FL 240 or assigned altitude via Tuba City 010 radial until 23 miles north (36°28'N, 111°04'W); then descend direct to cross 36°58'N, 111°07'W at 13,000' MSL; thence via published route.

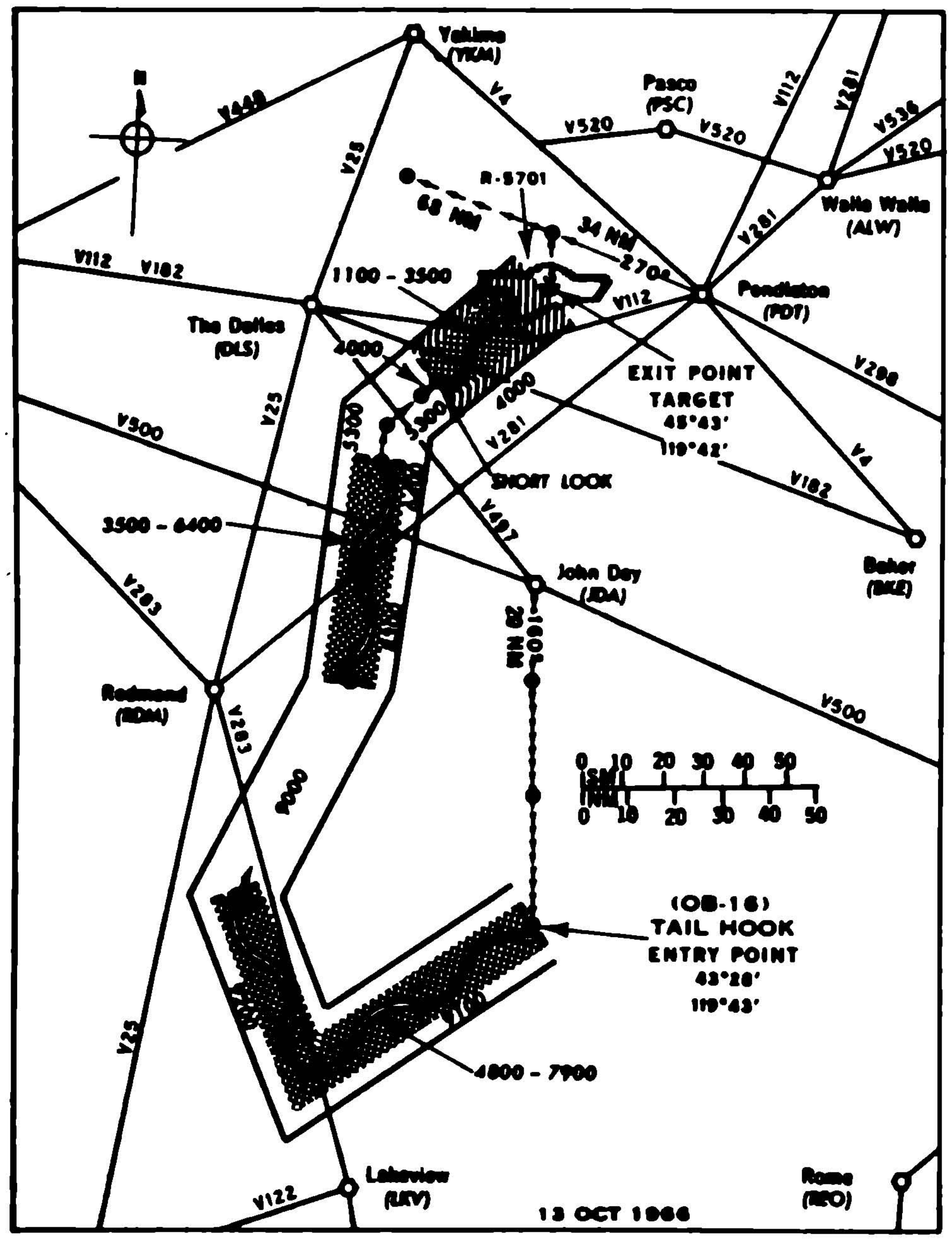
Hours of Operation—24 hours daily, 7 days a week.

OREGON

TAIL HOOK OB-16

Revised Effective September 25, 1966

Aircraft shall cross the John Day, Oregon VOR (reporting point) at FL 230, or as assigned by ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 NM south of the John Day VOR (44°19'N, 119°43'W); then descend to cross 43°55'N, 119°43'W at 10,000' MSL; then descend to cross 43°28'N, 119°43'W (entry point) at 9,100' MSL; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.



Short Look—After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R-5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 NM fix (reporting point) at or above 11,000' MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 NM fix at FL 230.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28'N, 119°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W to 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to restricted area R-5701. During daylight hours, VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800' above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE OB-17

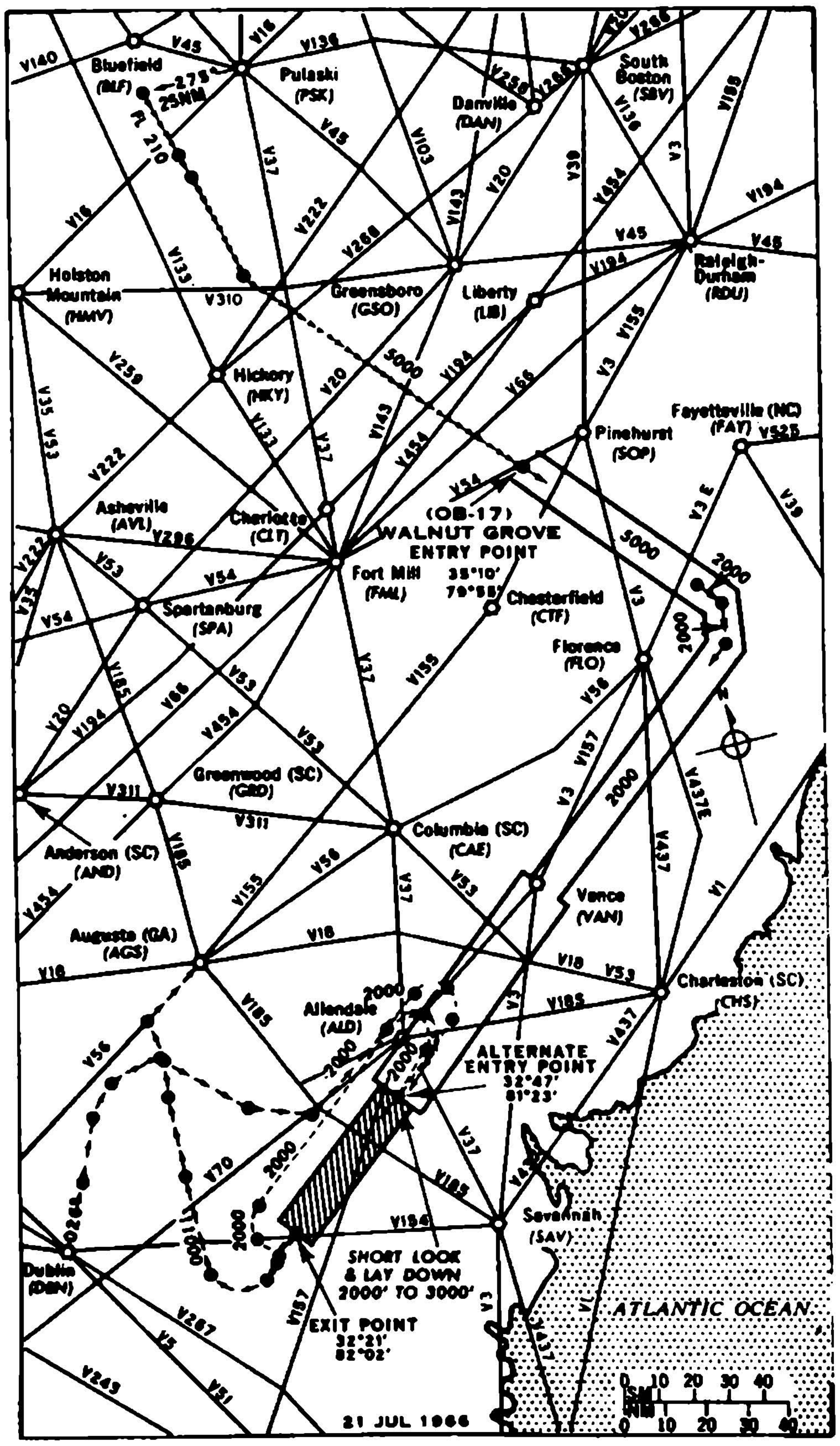
Revised Effective January 6, 1966

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06'N, 81°14'W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47'N, 81°08'W at FL 210; then descend direct so as to cross 36°43'N, 81°07'W at FL 180 or above; then descend direct so as to cross 36°15'N, 81°00'W at 5000' MSL; then at 5000' MSL direct to 35°10'N, 79°55'W (low level entry point); then at 5000' MSL direct to 34°29'N, 79°16'W; then descend direct so as to cross 34°23'N, 79°11'W at 2000' MSL; then at 2000' MSL turn right to 34°13'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 81°23'W.

Short Look and Lay Down—After passing 32°47'N, 81°23'W aircraft shall maintain between 2000' MSL and 3000' MSL through the bomb run corridor (4 NM either side of center line from 32°47'N, 81°23'W to 32°21'N, 82°02'W). After exiting the route at 32°21'N, 82°02'W, aircraft shall climb to or maintain 3,000' MSL to 32°16'N, 82°09'W; climb to cross 32°15'N, 82°11'W at 4,000' MSL; cross 32°12'N, 82°15'W at 6,000' MSL; right turn, continue climb to cross 32°16'N, 82°30'W at 11,000' MSL; maintain 11,000' direct 32°42'N, 82°29'W; then climb so as to cross 33°02'N, 82°28'W at FL 180; cross 33°10'N, 82°27'30"W at FL 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Ga., VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21'N, 82°02'W, turn right and descend or maintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' MSL continue turn to 32°30'N, 82°11'W; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04'N, 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 81°23'W; thence via the published route. Aircraft may proceed at 2000' MSL from 32°30'N, 82°11'W, direct 33°11'N, 81°09'30"W; turn right to 33°11'N, 80°59'30" W; continue turn to 33°02'N, 81°01'W; thence via published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 026° radial so as to cross 32°47'N, 82°59'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000' MSL; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04', 81°10'W; con-


Bluefield (BLF)
Pulaski (PSK)
South Boston (SBV)
Danville (DAN)
Holston Mountain (HMV)
Greensboro (GSO)
Liberty (LIB)
Raleigh-Durham (RDU)
Hickory (HKY)
Fayetteville (NC) (FAY)
Pinehurst (SOP)
Asheville (AVL)
Charlotte (CLT)
(OB-17) WALNUT GROVE ENTRY POINT 35°10' 79°58'
Fort Mill (FML)
Chesterfield (CTF)
Spartanburg (SPA)
Florence (FLO)
Greenwood (SC) (GRD)
Anderson (SC) (AND)
Columbia (SC) (CAE)
Vance (VAN)
Augusta (GA) (AGS)
Allendale (ALD)
Charleston (SC) (CHS)
ALTERNATE ENTRY POINT 32°47' 81°23'
Savannah (SAV)
Dublin (DBN)
SHORT LOOK & LAY DOWN 2000' TO 3000'
EXIT POINT 32°21' 82°02'
ATLANTIC OCEAN
N
SM
NM
21 JUL 1966

tinue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.

Route Width—The entire route width is reduced to 4 NM either side of centerline except, from 33°26'N, 80°25'W to 32°47'N, 81°23'W the route width is reduced to 6 NM.

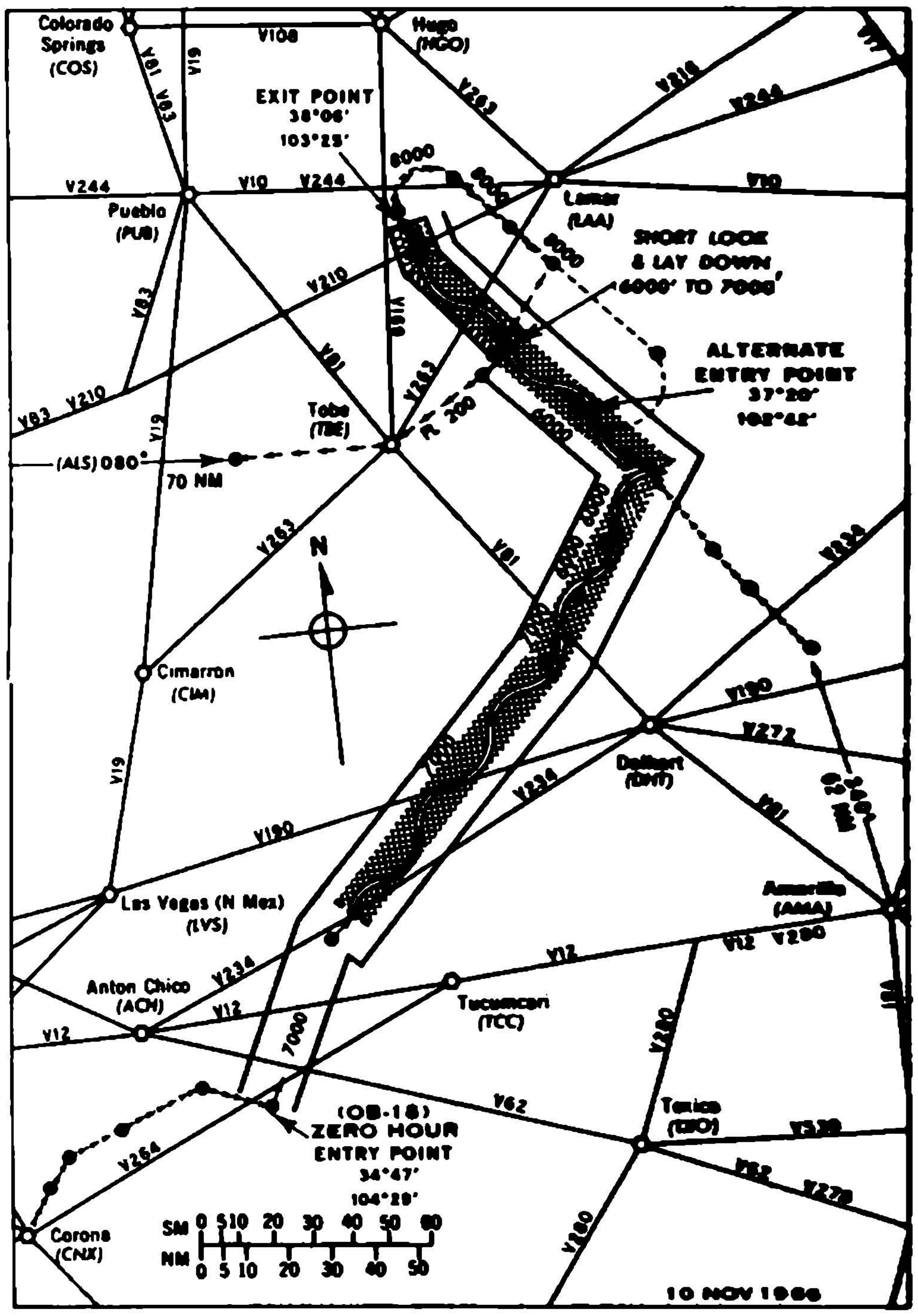
Hour of Operation—24 hours daily, 7 days a week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR OB-18

Revised Effective June 19, 1966

Aircraft shall cross 34°22'N, 105°40'30"W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ARTCC, then descend direct to cross 34°33'N, 105°33'W at or below FL 230; then descend direct to cross 34°40'N, 105°28'W at FL 220; then descend direct to cross 34°45'N, 105°12'W at or below 17,000' MSL; then descend direct to cross 34°53'N, 104°48'W at 10,000' MSL; then descend direct to cross the route entry point at 34°47'N, 104°29' W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104°08'W; then 7000' MSL direct to 36°22'N, 103°00'W; then 7000' MSL direct to 36°37'N, 102°49'W; then descend direct to cross 36°49'N, 102°40'W at 6000' MSL; then 6000' MSL direct to 37°06'N, 102°27'W; then 6000' MSL direct to 37°36'N, 103°00'W.


Colorado Springs (COS)
Hugo (HGO)
EXIT POINT 38°06' 103°25'
Pueblo (PUB)
Lamar (LAA)
SHORT LOOK & LAY DOWN 6000' TO 7000'
ALTERNATE ENTRY POINT 37°20' 102°42'
Tobe (TBE)
(ALS) 080°
70 NM
N
Cimarron (CIM)
Dalhart (DHT)
Las Vegas (N Mex) (LVS)
Amarillo (AMA)
Anton Chico (ACH)
Tucumcari (TCC)
(OB-18) ZERO HOUR ENTRY POINT 34°47' 104°29'
Texico (TXO)
Corona (CNX)
SM
NM
10 NOV 1966

Short Look and Lay Down—After passing 37°36'N, 103°00'W, aircraft shall maintain between 6000' MSL and 7000' MSL thru the bomb run corridor (4 NM either side of centerline from 37°36'N, 103°00'W to 37°57'N, 103°22'W to 38°06'N, 103°25'W). After exiting the route at 38°06'N, 103°25'W climb direct to cross 38°09'N, 103°26'W at 8000' MSL, turn right, maintain 8000' MSL to 38°15'N, 103°10'W, then 8000' MSL direct to 38°02'N, 102°55'W, then climb direct to cross 37°53'N, 102°45'W at 9000' MSL, continue climb direct to cross 37°30'N, 103°08'W at FL 200; then maintain FL 200 direct to Tobe VORTAC then climb direct so as to cross 37°16'N, 104°21'W (ALS 080/70 DME fix) at FL 240.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06'N, 103°25'W, climb direct to cross 38°09'N, 103°26'W at 8000' MSL, maintain 8000' MSL right turn to 38°15'N, 103°10'W, then 8000' MSL direct 37°29'N, 102°18'W; then turn right descending to cross 37°14'N, 102°35'W at 6000' MSL thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000', visibility 5 miles, the pilot may descend VFR and operate

VFR between the IFR altitudes indicated on the chart and 500' above the immediate terrain between the following points: From 35°30'N, 104°01'W to 38°06'N, 103°25'W. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain.

Alternate Entry—Aircraft shall cross 36°19'N, 101°51'W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ARTCC, then descend direct to cross 36°34'N, 102°03'W at 17,000' MSL; then descend direct to cross 36°44'N, 102°11'W at 14,000' MSL; then descend direct to cross 37°06'N, 102°27'W at 11,000' MSL; then descend direct to cross 37°20'N, 102°42'W at 6000' MSL; thence via the published route.

Route Width—The route width from 34°47'N, 104°29'W to 35°24'N, 104°08'W is reduced to 4 NM on the east side of centerline, and from 37°36'N, 103°00'W, to 38°06'N, 103°25'W, the route is reduced to 4 NM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective November 26, 1966:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
Bar Harbor, Me.—Bar Harbor Arpt	No. 1, Amdt. 5	Revised
Fargo, N.D.—Hector Arpt	No. 1, Amdt. 17	Revised
Laconia, N.H.—Laconia Muni Arpt	No. 1, Amdt. 4	Revised
Oklahoma City, Okla.—Will Rogers World Arpt	No. 1, Amdt. 14	Revised
Salina, Kans.—Muni Arpt	No. 1, Orig.	Established
Tulsa, Okla.—Tulsa Int'l Arpt	No. 1, Amdt. 12	Revised
VHF OMNIRANGE		
Binghamtom, N.Y.—Broome Co. Arpt	No. 1, Orig	Established
Decatur, Ill.—Decatur Muni Arpt	No. 1, Amdt. 5	Revised
Ogden, Utah—Ogden Muni Arpt	No. 1, Amdt. 12	Revised
Pitman, N.J.—Pitman Arpt	No. 1, Amdt. 2	Revised
St. Clairsville, Ohio—Alderman Field	No. 1, Amdt. 5	Revised
Salina, Kans.—Muni Arpt	No. 1, Amdt. 2	Revised
South Boston, Va.—William M. Tuck Arpt	No. 1, Amdt. 1	Revised
TERMINAL VOR		
New York, N.Y.—J. F. Kennedy Int'l Arpt	TerVOR-22L, Amdt. 11	Revised
VOR/DME		
Beverly, Mass.—Beverly Muni Arpt	VOR/DME-1, Orig	Established
Binghamton, N.Y.—Broome Co. Arpt	VOR/DME-1, Amdt. 6, efctv 23 May 64	Cancelled
Ogden, Utah—Ogden Muni Arpt	VOR/DME-1, Amdt. 3 efctv 3 Oct 64	Cancelled
Washington, Pa.—Washington Co. Arpt	VOR/DME-1, Amdt. 1	Revised
INSTRUMENT LANDING SYSTEM		
Bangor, Me.—Dow A.F.B.	ILS-33, Amdt. 2	Revised
Fargo, N.D.—Hector Arpt	ILS-35, Amdt. 18	Revised
New York, N.Y.—LaGuardia Arpt	ILS-13, Amdt. 2	Revised
Oklahoma City, Okla.—Will Rogers World Arpt	ILS-35L, Amdt. 12	Revised
Salina, Kans.—Muni Arpt	ILS-35, Orig	Established
Tulsa, Okla.—Tulsa Int'l Arpt	ILS-35R, Amdt. 14	Revised
RADAR		
Klamath Falls, Oreg.—Kingsley Field	No. 1, Orig	Established

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective December 10, 1966:

Location	Procedure	Action
LOW FREQUENCY RANGE		
Minot, N.D.—Minot Int'l Arpt	No. 1, Amdt. 10, efctv 29 Aug 64	Cancelled
AUTOMATIC DIRECTION FINDING		
Atlantic City, N.J.—NAFEC/Atlantic City (Pomona)	No. 1, Amdt. 4	Revised
Benton Harbor, Mich.—Ross Field	No. 1, Amdt. 2	Revised
Benton Harbor, Mich.—Ross Field	No. 2, Amdt. 2	Revised
Beverly, Mass.—Beverly Muni Arpt	No. 1, Amdt. 4	Revised
Buffalo, N.Y.—Greater Buffalo Int'l Arpt	No. 1, Amdt. 5	Revised

AUTOMATIC DIRECTION FINDING—Cont'd

Location	Procedure	Action
Franklin, Pa.—Chess-Lamberton Arpt	No. 1, Amdt. 2	Revised
Hutchinson, Kans.—Hutchinson Muni Arpt	No. 1, Amdt. 4	Revised
Kent, Ohio—Andrews W. Patton of Kent State	No. 1, Orig	Established
Martinsburg, Pa.—Blair Co. Arpt	No. 1, Orig., efctv 18 Aug 66	Cancelled
Tifton, Ga.—Henry Tift Myers	No. 1, Orig	Established

VHF OMNIRANGE

Location	Procedure	Action
Ardmore, Okla.—Downtown Ardmore Arpt	No. 1, Orig.	Established
Benton Harbor, Mich.—Ross Field	No. 1, Amdt. 5	Revised
Dothan, Ala.—Dothan Arpt	No. 1, Amdt. 5	Revised
Fargo, N.D.—Hector Arpt	No. 1, Amdt. 2	Revised
Franklin, Pa.—Chess-Lamberton Arpt	No. 1, Amdt. 2	Revised
Hutchinson, Kans.—Hutchinson Muni Arpt	No. 1, Amdt. 11	Revised
Kent, Ohio—Andrew W. Patton of Kent State	No. 1, Orig.	Established
Macon, Ga.—Macon Muni Arpt	No. 1, Orig.	Established
Martinsburg, Pa.—Blair Co. Arpt	No. 1, Amdt. 2	Revised
Minot, N.D.—Minot Int'l Arpt	No. 1, Amdt. 4, efctv 10 Jul 65	Cancelled
Minot, N.D.—Minot Int'l Arpt	No. 2, Orig., efctv 12 Sep 64	Cancelled
Plattsburgh, N.Y.—Plattsburgh Muni Arpt	No. 1, Amdt. 9	Revised
St. Louis, Mo.—Spirit of St. Louis Arpt	No. 1, Orig.	Established

TERMINAL VOR

Location	Procedure	Action
Atlantic City, N.J.—NAFEC/Atlantic City (Pomona)	TerVOR–4, Amdt. 6	Revised
Atlantic City, N.J.—NAFEC/Atlantic City (Pomona)	TerVOR–31, Amdt. 6	Revised
Eveleth, Minn.—Eveleth-Virginia Muni Arpt	TerVOR–27, Amdt. 2	Revised
Liberal, Kans.—Liberal Muni Arpt	TerVOR–17, Orig.	Established
Liberal, Kans.—Liberal Muni Arpt	TerVOR–35, Amdt. 5	Revised
Minot, N.D.—Minot Int'l Arpt	TerVOR–8, Orig.	Established
Minot, N.D.—Minot Int'l Arpt	TerVOR–26, Orig.	Established

VOR/DME

Location	Procedure	Action
Baltimore, Md.—Friendship Int'l Arpt	VOR/DME–1, Amdt. 3, efctv 5 Nov 66	Cancelled
Dothan, Ala.—Dothan Arpt	VOR/DME–1, Amdt. 1	Revised
Macon, Ga.—Macon Muni Arpt	VOR/DME–1, Amdt. 6, efctv 20 Aug 66	Cancelled
Minot, N.D.—Minot Int'l Arpt	VOR/DME–1, Orig.	Established
Minot, N.D.—Minot Int'l Arpt	VOR/DME–2, Orig.	Established
St. Louis, Mo.—Spirit of St. Louis Arpt	VOR/DME–1, Orig.	Established

INSTRUMENT LANDING SYSTEM

Location	Procedure	Action
Atlantic City, N.J.—NAFEC/Altantic City (Pomona)	ILS–13, Amdt. 7	Revised
Hutchinson, Kans.—Hutchinson Muni Arpt	ILS–13, Amdt. 5	Revised
Hutchinson, Kans.—Hutchinson Muni Arpt	ILS–31, (Back Course), Amdt. 5	Revised
Rochester, Minn.—RochesterMuni Arpt	ILS–31, Amdt. 5	Revised
Syracuse, N.Y.—Clarence E. Hancock Arpt	ILS–28, Amdt. 20	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective December 17, 1966:

AUTOMATIC DIRECTION FINDING

Location	Procedure	Action
Davenport, Iowa—Davenport Muni. Arpt	No. 1, Amdt. 3	Revised
Robinson, Ill.—Robinson Muni. Arpt	No. 1, Amdt. 1	Revised

VHF OMNIRANGE

Location	Procedure	Action
Chatham, Mass.—Chatham Muni. Arpt	No. 1, Amdt. 2	Revised
Greenwood, Miss.—Greenwood Muni. Arpt	No. 1, Amdt. 5	Revised
La Grange, Tex.—Rocky Creek Ranch Arpt	No. 1, Orig	Established
Presque Isle, Me.—Presque Isle Muni. Aprt	No. 1, Amdt. 2	Revised
Toledo, Ohio—Toledo Muni. Arpt	No. 1, Amdt. 2	Revised
Torrance, Calif.—Torrance Muni. Arpt	No. 1, Amdt. 5	Revised
Yakima, Wash.—Yakima Muni. Arpt	No. 1, Amdt. 7	Revised

TERMINAL VOR

Location	Procedure	Action
Eveleth, Minn.—Eveleth-Virginia Muni. Arpt	TerVOR-27, Amdt. 2	Revised
Jackson, Mich.—Reynolds Muni. Arpt	TerVOR-5, Amdt. 3	Revised
Jackson, Mich.—Reynolds Muni. Arpt	TerVOR-13, Amdt. 4	Revised
Jackson, Mich.—Reynolds Muni. Arpt	TerVOR-23, Amdt. 4	Revised
Jackson, Mich.—Reynolds Muni. Arpt	TerVOR-31, Amdt. 4	Revised
Pasco, Wash.—Tri-Cities Arpt	VOR-20R, Amdt. 7	Revised
Pasco, Wash.—Tri-Cities Arpt	VOR-29R, Amdt. 7	Revised
Saginaw, Mich.—Tri-City Arpt	TerVOR-14, Amdt. 3	Revised
Saginaw, Mich.—Tri-City Arpt	TerVOR-32, Orig	Established
Shelbyville, Tenn.—Bomar Field	TerVOR-36, Amdt. 2	Revised

VOR/DME

Location	Procedure	Action
Torrance, Calif.—Torrance Muni Arpt	VOR/DME-1, Amdt. 1, effec 20 Feb 65	Cancelled

INSTRUMENT LANDING SYSTEM

Location	Procedure	Action
Burlington, Vt.—Burlington Arpt	ILS-15, Amdt. 10	Revised
Ft. Wayne, Ind.—Baer Field	ILS-31, Amdt. 13	Revised
Manchester, N.H.—Grenier Fld. (Manchaster Muni. Arpt)	ILS-35, Amdt. 2	Revised
Oshkosh, Wis.—Winnebago Co. Arpt	ILS-9, Amdt. 8	Revised
Portland, Me.—Portland Muni. Arpt	ILS-11, Amdt. 6	Revised
Yakima, Wash.—Yakima Muni. Arpt	ILS-27, Amdt. 13	Revised

RADAR

Location	Procedure	Action
Detroit, Mich.—Detroit City Arpt	No. 1, Amdt. 3	Revised

The following Standard Instrument Approach will be revised, established, or cancelled effective December 24, 1966:

LOW FREQUENCY RANGE

Location	Procedure	Action
Detroit, Mich.—Detroit City Arpt	No. 1, Amdt. 13, efctv 25 Dec 65	Cancelled

AUTOMATIC DIRECTION FINDING

Location	Procedure	Action
Detroit, Mich.—Detroit City Arpt	No. 1, Amdt. 9	Revised
Little Rock, Ark.—Adams Field	No. 1, Amdt. 8	Revised
Monterey, Calif.—Monterey Peninsula Arpt	No. 1, Amdt. 2	Revised
Seattle, Wash.—Seattle-Tacoma Int'l Arpt	No. 1, Amdt. 26	Revised
Seattle, Wash.—Seattle-Tacoma Int'l Arpt	No. 2, Amdt. 5	Revised
Waterville, Me.—Robert LaFleur Arpt	No. 1, Amdt. 5	Revised

VHF OMNIRANGE

Location	Procedure	Action
Battle Mountain, Nev.—Lander Co. Arpt	No. 1, Amdt. 5	Revised
Detroit, Mich.—Detroit City Arpt	No. 1, Amdt. 4	Revised
Detroit, Mich.—Detroit City Arpt	No. 2, Amdt. 4	Revised
Laredo, Tex.—Laredo Muni. Arpt	No. 1, Amdt. 6	Revised

TERMINAL VOR

Location	Procedure	Action
Schenectady, N.Y.—Schenectady Co. Arpt	TerVOR-22, Amdt. 1	Revised

VOR/DME

Location	Procedure	Action
Danville, Ill.—Vermilion Co. Arpt	VOR/DME-2, Orig	Established
Houston, Tex.—William P. Hobby Arpt	VOR/DME-2, Amdt. 10	Revised
Laredo, Tex.—Laredo Muni. Arpt	VOR/DME-1, Amdt. 3	Revised

INSTRUMENT LANDING SYSTEM

Boston, Mass.—General Edward Lawrence Logan Int'l Arpt	ILS-33, Amdt. 4	Revised
Detroit, Mich.—Detroit City Arpt	ILS-15, Amdt. 1	Revised
Erie, Pa.—Port Erie	ILS-6, Amdt. 6	Revised
Little Rock, Ark.—Adams Field	ILS-4, Amdt. 10	Revised
Monterey, Calif.—Monterey Peninsula Arpt	ILS-10, Amdt. 13	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS-10R (Back Course), Amdt. 6 efctv 27 Mar 65	Cancelled
Seattle, Wash.—Seattle-Tacoma Int'l Arpt	ILS-16, Amdt. 7	Revised
Seattle, Wash.—Seattle-Tacoma Int'l Arpt.	ILS-34, Amdt. 27	Revised

RADAR

Chicago, Ill.—Chicago-O'Hare Int'l Arpt	No. 1, Amdt. 13	Revised
Seattle, Wash.—Seattle-Tacoma Int'l Arpt	No. 1, Amdt. 13	Revised

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Duluth	Jul 21 66	7/20/67
→ Elko	Dec 8 66	5/25/67
El Paso	Aug 18 66	3/2/67
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Glacier Park	Oct 13 66	10/12/67
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Grand Junction	Nov 10 66	5/25/67
→ Green Bay	Dec 8 66	5/25/67
Huntington	Aug 18 66	2/2/67
Jacksonville	Nov 10 66	4/27/67
Kansas City	Aug 18 66	2/2/67
Klamath Falls	Sept 15 66	3/30/67
Kootenai	Feb 3 66	2/2/67
La Grande	Jul 21 66	2/2/67
Lake Huron	May 26 66	5/25/67
Lake Superior	Aug 18 66	3/2/67
Lake of Woods	Aug 18 66	8/17/67
Lewiston	Nov 10 66	4/27/67
Lincoln	Oct 13 66	3/30/67
* Little Rock	Jul 21 66	1/5/67
Los Angeles	Aug 18 66	3/2/67
Miami	Sept 15 66	3/30/67
Miles City	Oct 13 66	4/27/67
→ Milwaukee	Dec 8 66	5/25/67
Minot	Sept 15 66	3/2/67
Mobile	Jul 21 66	2/2/67
Mt. Shasta	Nov 10 66	5/25/67
* Mt. Whitney	Jun 23 66	1/5/67
* Nashville	Jul 21 66	1/5/67
New Orleans	Sept 15 66	3/30/67
New York	Oct 13 66	3/30/67
Norfolk	Sept 15 66	3/2/67
Oklahoma City	Nov 10 66	4/27/67
Orlando	Nov 10 66	4/27/67
* Phoenix	Jul 21 66	1/5/67
Pocatello	Oct 13 66	3/30/67
Portland	Jul 21 66	2/2/67
Prescott	Sept 15 66	3/30/67
→ Rapid City	Dec 8 66	6/22/67
* Reno	Jun 23 66	1/5/67
* Roswell	Jun 23 66	1/5/67
* Sacramento	Jun 23 66	1/5/67
Salina	Sept 15 66	3/30/67
→ Salt Lake City	Dec 8 66	5/25/67
* San Antonio	Jun 23 66	1/5/67
San Diego	Aug 18 66	3/2/67
* San Francisco	Jun 23 66	1/5/67
Savannah	Sept 15 66	3/2/67
→ Seattle	Dec 8 66	6/22/67
* Shreveport	Jun 23 66	1/5/67
Sioux City	Nov 10 66	5/25/67
→ Spokane	Dec 8 66	6/22/67
Trinidad	Sept 15 66	3/2/67
Tulsa	Oct 13 66	4/27/67
Twin Cities	Nov 10 66	4/27/67
Washington, D.C.	Oct 13 66	3/30/67
* Wichita	Jun 23 66	1/5/67
Williston	Jul 21 66	7/20/67
Winston-Salem	Oct 13 66	3/30/67
Yellowstone Park	Sept 15 66	3/2/67
→ Hawaiian Is.	Dec 8 66	12/7/67

LOCAL CHARTS

Price 30 cents each

Atlanta	Oct 13 66	4/27/67
Boston	Sept 15 66	3/2/67
Brownsville	Jul 21 66	2/2/67
→ Chicago	Dec 8 66	5/25/67
Cleveland	Nov 10 66	5/25/67
Dallas-Ft. Worth	Jul 21 66	2/2/67
Dayton	Aug 18 66	2/2/67
→ Denver	Dec 8 66	6/22/67
* Detroit	Jul 21 66	1/5/67
* Honolulu	Jan 6 66	1/5/67
Indianapolis	Aug 18 66	2/2/67
Jacksonville	Nov 10 66	4/27/67
Kansas City	Aug 18 66	2/2/67
Los Angeles	Aug 18 66	3/2/67
Miami	Sept 15 66	3/30/67
→ Milwaukee	Dec 8 66	5/25/67
Montgomery	Oct 13 66	4/27/67
New York	Oct 13 66	3/30/67
Norfolk	Sept 15 66	3/2/67
Philadelphia	Oct 13 66	3/30/67
* Phoenix	Jul 21 66	1/5/67
Pittsburgh	Nov 10 66	5/25/67
St. Louis	Aug 18 66	2/2/67
San Diego	Aug 18 66	3/2/67
* San Francisco	Jun 23 66	1/5/67
→ San Juan	Dec 8 66	12/7/67
→ Seattle	Dec 8 66	6/22/67
Washington	Oct 13 66	3/30/67

† DISCONTINUED
→ New Edition published. Obsoletes Earlier Edition on Dec. 8, 1966.
* New Edition will be published prior to Effective date, Jan. 5, 1967.

DATES OF LATEST EDITIONS (Continued)

WORLD AERONAUTICAL CHARTS - UNITED STATES

Price 25 cents each

WAC 62	Feb. 25, 1966	→ WAC 217	Aug. 29, 1966	WAC 360	Nov. 1, 1965
WAC 63	Mar. 23, 1966	WAC 218	Mar. 15, 1966	WAC 361	Oct. 25, 1965
WAC 64	Feb. 18, 1966	WAC 219	Mar. 17, 1966	WAC 362	July 29, 1966
WAC 76	Oct. 27, 1965	WAC 262	Apr. 18, 1966	WAC 363	Aug. 2, 1966
* WAC 77	Sept. 28, 1965	WAC 263	Apr. 13, 1966	WAC 364	Jan. 18, 1966
* WAC 78	Sept. 27, 1965	WAC 264	Apr. 8, 1966	WAC 404	July 18, 1966
WAC 117	May 2, 1966	→ WAC 265	Sept. 23, 1966	WAC 405	Feb. 11, 1966
WAC 118	May 26, 1966	→ WAC 266	Sept. 23, 1966	WAC 406	Aug. 1, 1966
WAC 119	July 1, 1966	WAC 267	Nov. 12, 1966	WAC 407	Feb. 17, 1966
WAC 135	July 18, 1966	WAC 268	Mar. 9, 1966	WAC 408	June 9, 1966
WAC 136	Aug 1, 1966	→ WAC 269	Aug. 29, 1966	WAC 409	July 11, 1966
WAC 137	July 29, 1966	WAC 304	Jan. 18, 1966	WAC 410	June 8, 1966
WAC 138	Mar. 7, 1966	→ WAC 305	Aug. 30, 1966	WAC 466	May 12, 1966
WAC 139	Mar. 1, 1966	* WAC 306	Sept. 29, 1965	WAC 467	May 31, 1966
WAC 186	Mar. 8, 1966	* WAC 307	Oct. 1, 1965	WAC 468	Dec. 15, 1965
WAC 190	June 20, 1966	WAC 308	Oct. 29, 1965	WAC 469	Dec. 21, 1965
WAC 191	May 5, 1966	WAC 309	Nov. 22, 1965	WAC 470	Feb. 11, 1966
WAC 192	Jan. 27, 1966	WAC 310	Jan. 14, 1966	WAC 471	Mar. 8, 1966
WAC 193	Feb. 18, 1966	WAC 357	Apr. 21, 1966	WAC 522	Dec. 23, 1965
WAC 215	Jan. 17, 1966	WAC 358	May 9, 1966	WAC 525	June 16, 1966
→ WAC 216	Aug. 25, 1966	WAC 359	Oct. 27, 1965		

JET NAVIGATION CHARTS

Price 50 cents each

JN 29	United States Northwest	Apr. 4, 1966	JN 44	United States Southwest	Feb. 17, 1966
JN 30	United States Northeast	Mar. 10, 1966	JN 45	United States Southeast	Jan. 11, 1966

PLANNING CHARTS

○ VFR/IFR (Price $2.00)	July 21, 1966
Aeronautical Chart Catalog (Free)	Oct., 1966

AIRCRAFT POSITION CHARTS

Price 30 cents each

* 3071	North Atlantic	Apr. 14, 1966
3073	Caribbean Sea	June 23, 1966
→ 3087	Central Pacific	Sept. 15, 1966
3088	Southwest Pacific	June 6, 1966
→ 3094	North Pacific	Sept. 15, 1966
3096	United States-Honolulu	June 14, 1966
3097	North America-Europe	May 12, 1966

† DISCONTINUED
→ New Edition published. Obsoletes Chart of Earlier date.
* New Edition will be published in about one month.
○ Folded copies available on request.

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	ALABAMA				
5014	Anniston		12-3-66(1)		
5394	Monroeville	11-19-66(1)* 11-19-66(2)*			
	ALASKA				
1522	Anchorage (Merrill Fld)				11-19-66
1231	Nome (FAA)	11-26-66(1) 11-26-66DME(1)*			11-26-66
	ARKANSAS				
233	Little Rock (Adams Fld)	11-12-66(1)	11-12-66(1)	11-12-66R4 11-12-66R22(BC)	
5165	Springdale	11-26-66(1)			
	CALIFORNIA				
5310	Carlsbad (Palomar)	11-12-66(1)			
310	Palmdale (AF Plant No. 42)	11-5-66R22 11-5-66DME (1)			
	DISTRICT OF COLUMBIA				
443	Washington (National)	12-3-66DME(3)	12-3-66(2)		
	FLORIDA				
154	Fort Myers (Page Field)	11-10-66DME(1)	11-10-66(1)		
606	Key West (Intnl)	11-19-66(1)*	11-19-66(1)		
449	West Palm Beach (Intnl)		11-19-66(1)	11-19-66R9	
	GEORGIA				
26	Atlanta	11-19-66(2)	11-19-66(1) 11-19-66(2) 11-19-66(4)	11-19-66R9L 11-19-66R33 11-19-66R9R 11-19-66R9L&9R	
28	Augusta (Daniel Fld)	11-26-66(1)			
146	Fort Benning (Lawson AAF)	11-26-66R2 11-26-66R14 11-26-66R20	11-26-66(1) 11-26-66(2)		
892	Valdosta	11-19-66(1)			
	HAWAII				
754	Honolulu (Intnl)		11-26-66(1)	11-26-66R8	
5193	Kailua-Kona	11-10-66(1)*			
	ILLINOIS				
166	Chicago-(O'Hare Intnl)		11-19-66(3)	11-19-66R27	
5278	Kankakee (Greater)	11-12-66DME(1)	11-12-66(1)		
954	Rockford (Greater)		11-12-66(1)	11-12-66R36	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	INDIANA				
513	Evansville (Dress Mem.)		11-26-66(1)	11-26-66R21	
748	Gary	11-5-66(1)			
5282	Warsaw	11-5-66(1)			
	IOWA				
117	Des Moines	11-26-66(1)	11-26-66(1)	11-26-66R30	
				11-26-66R12(BC)	
5342	Estherville	11-12-66R34			
	KANSAS				
152	Fort Leavenworth (Sherman AAF)	11-12-66(1)			
362	Salina (Municipal)	11-26-66(1)	11-26-66(1)*	11-26-66R35*	
	KENTUCKY				
697	Lexington(Blue Grass Fld)	11-12-66(1)	11-12-66(1)	11-12-66R4	
				11-12-66R22(BC)	
	LOUISIANA				
5096	Fort Polk (Polk AAF)	12-3-66(1)*			
		12-3-66(2)*			
	MAINE				
29	Augusta (State)	12-3-66R17	12-3-66(1)		
		12-3-66DME (1)*			
		12-3-66DME (2)*			
		12-3-66DME (3)*			
39	Bangor (Dow AFB)			11-26-66R33	
992	Bar Harbor		11-26-66(1)		
5129	Waterville (Robert Lafleur)	12-3-66DME(1)*	12-3-66(1)		
	MARYLAND				
5263	Cumberland		11-19-66(1)		
	MASSACHUSETTS				
5039	Beverly	11-26-66DME(1)*	11-26-66(1)		
58	Boston (Logan Intnl)	11-19-66R27	11-19-66(1)	11-19-66R4R	
		11-19-66R4R	11-19-66(2)	11-19-66R33L	
		11-19-66R22L	11-19-66(3)		
		11-19-66R33L			
		11-19-66DME(1)			
446	Westfield (Barnes)	11-5-66R20	11-5-66(1)		
	MICHIGAN				
119	Detroit (Metro. Wayne Co.)		11-12-66(1)	11-12-66R3L&R	
			11-12-66(2)	11-12-66R21R	
5123	Escanaba	11-10-66R9			
		11-10-66R27*			
618	Flint (Bishop)	11-12-66R5			
		11-12-66R23			
		11-12-66R9			
		11-12-66R27			
5213	Ironwood (Gogebic Co.)	11-19-66Rad-255			

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
	MINNESOTA				
5380	Fergus Falls (Einar Mickelson Fld.)	11-12-66R35			
5258	Grand Rapids	11-10-66(1)*			
5202	Minneapolis (Anoka Co.-James Fld.)	11-26-66(1) 11-26-66DME(1)			
264	Minneapolis (St. Paul Intnl)		12-3-66(1)	12-3-66R29L	
5041	Rochester (Municipal)		11-19-66(1)	11-19-66R31	
	MISSISSIPPI				
206	Jackson (Hawkins)	11-12-66(1)	11-12-66(2)		
5128	Picayune	11-19-66(1)			
	MISSOURI				
359	St. Joseph (Rosecrans Mem)	12-3-66(1)	12-3-66(1)	12-3-66R35	
	MONTANA				
5382	Glasgow (Intnl)	11-10-66(1)*			
	NEBRASKA				
232	Lincoln (Mun/AFB)	11-12-66(1)	11-12-66(1)	11-12-66R35L 11-12-66R17R(BC)	
	NEW HAMPSHIRE				
785	Laconia		11-26-66(1)		
	NEW JERSEY				
891	Millville		11-10-66(1)*		
5255	Pitman	11-26-66(1)			
	NEW YORK				
20	Binghamton (Broome Co.)	11-26-66(1)* 11-26-66DME(2)			
610	New York (John F. Kennedy Intnl)	11-26-66R4L&R 11-26-66R22L			
289	New York (La Guardia)	11-12-66(1) 11-12-66(2) 11-12-66(3)*	11-12-66(1)	11-12-66R4 11-12-66R13	
614	Niagara Falls		11-19-66(1)	11-19-66R28R	
5395	Oneonta	11-12-66(1)*			
411	Syracuse (Hancock)	11-19-66(1)		11-19-66R10(BC)	
	NORTH CAROLINA				
690	Fayetteville (Grannis Fld)		11-19-66(1)	11-19-66R3	
	NORTH DAKOTA				
144	Fargo (Hector)		11-26-66(1)	11-26-66R35	
5187	Grand Forks (Intnl)	12-3-66R17 12-3-66R35			

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		OHIO			
5300	Alliance (Miller)	11-5-66(1)			
5053	St. Clairsville (Alderman Field)	11-26-66(1)			
466	Youngstown		11-5-66(1)	11-5-66R32	
		OKLAHOMA			
230	Fort Sill (Henry Post AAF)	11-12-66(1)	11-12-66(1)		
623	Muskogee (Davis Fld)		11-19-66(1)		
301	Oklahoma City (Will Rogers World)		11-26-66(1)	11-26-66R35L	
432	Tulsa (Intnl)		11-26-66(1)	11-26-66R35R	
		OREGON			
5063	Hillsboro (Portland-Hillsboro)	11-26-66(1) 11-26-66DME(1)			
		PENNSYLVANIA			
5206	Beaver Falls (County)	12-3-66(1)			
5254	Clarion (Rhea)	11-19-66(1)			
326	Pittsburgh (Allegheny Co.)		11-19-66(1)	11-19-66R27	
570	" (Greater)	11-19-66R32	11-19-66(1)	11-19-66R28L	
			11-19-66(3)	11-19-66R10L	
5148	Washington (County)	11-26-66DME(1)			
		SOUTH CAROLINA			
76	Charleston (AFB/Mun)	11-19-66DME(1) 11-19-66DME(2) 11-19-66DME(3) 11-19-66DME(4)	11-19-66(1)	11-19-66R15	
89	Columbia (Metropolitan)		11-5-66(1)	11-5-66R10	
		SOUTH DAKOTA			
324	Pierre	11-10-66(1) 11-10-66DME(1)*			
		TENNESSEE			
79	Chattanooga (Lovell Fld.)		11-19-66(1)	11-19-66R20	
		TEXAS			
5031	Fort Hood (AAF)	11-12-66(1)	11-12-66(1)		
906	Fort Hood (Robert Gray AAF)	11-26-66(1)	11-26-66(1)		
5344	Killeen	11-12-66(1)			
658	Mineral Wells	11-12-66(1)	11-12-66(1)		
369	San Antonio (Intnl)		11-19-66(3)	11-19-66R12	
		UTAH			
297	Ogden	11-26-66(1)			
		VIRGINIA			
765	Charlottesville (Albemarle)		11-26-66(1)	11-26-66R3	
5359	Lawrenceville	11-12-66(1)			

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

• U.S. COAST AND GEODETIC SURVEY •

Chart No.	City or Town	VOR	ADF	ILS	RNG
		VIRGINIA			
291	Norfolk	12-3-66R4		12-3-66R4	
347	Richmond (Byrd Fld.)	12-3-66R15 12-3-66R33	11-19-66(1)	11-19-66R6	
5112	South Boston (Wm. M. Tuck)	11-26-66(1)			
		WASHINGTON			
45	Bellingham	11-19-66(1) 11-19-66(2)			
384	Seattle (King County Boeing Fld)		11-12-66(1) 11-12-66(2)	11-12-66R13	
403	Spokane (Intnl)	11-5-66DME(1)	11-5-66(1)	11-5-66R21 11-5-66R3(BC)	
		WEST VIRGINIA			
479	Morgantown	11-12-66(1) 11-26-66DME(1) 11-26-66DME(2)	11-12-66(1)		
		WISCONSIN			
262	Milwaukee(Gen'l Mitchell Field)		12-3-66(1) 12-3-66(3)*	12-3-66R1 12-3-66R19(BC)	
730	Oshkosh (Winnebago Co.)	11-19-66R36	11-19-66(1)	11-19-66R9	
		WYOMING			
691	Riverton	11-12-66R10 11-12-66R28			
		MARIANA ISLANDS			
2147	Guam I., (Andersen AFB)		11-19-66(1)		
		VIRGIN ISLANDS			
5008	Christiansted, St. Croix, (Alexander Hamilton)	11-26-66(1)			
		RADAR			
Radar	Alaska, Hawaii & U.S. Pacific Islands	11-5-66			
	Radar Supplement	Page 1/Page 2	11-66		

* NEW CHART

AIRMAN'S INFORMATION MANUAL

FEDERAL AVIATION AGENCY

PART 3A

EFFECTIVE 0501Z 8 DECEMBER 1966

To 0501Z 22 DECEMBER 1966

NOTICES TO AIRMEN

Part 3–A—NOTICES TO AIRMEN

This part is issued every 14 days and is primarily designed to supplement Part 3 of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airmen Advisories, new or revised Oil Burner Routes and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is normally carried twice unless re-submitted.

NOTE: Data are arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necssarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

ANNISTON RDO: RBn without voice til aprxly Dec 15.

AUBURN-OPELIKA ARPT: Sod areas clsd for tkofs and lndgs Two inch lip on edge of asphalt first 1000′ rnwy 36.

BRANTLEY MUNI ARPT: Clsd UFN.

DOTHAN ARPT: WIP til aprxly June 1967. Rnwy 14–32 clsd. Rnwy 18–36 or 9–27 clsd intermittently.

HUNTSVILLE, MADISON COUNTY ARPT: New arpt under constr 10 miles W until aprxly Nov 1966. Not to be used by acft.

ST. ELMO ARPT: Clsd for constr UFN.

SELMA, SELFIELD ARPT: Rnwy 18–36 clsd. VFR acft ctc Craig Twr on 126.2 for tfc and lndg advisories.

ARIZONA

BAGDAD ARPT: Clsd due constr til aprxly Dec 12.

CAMERON ARPT: Potholes near centerline of rnwy 4–22, mrkd with flagged stakes.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06′31″, long 112°01′46″ aprxly 4 mi N. 1200′ W and parallel to hwy. Site is strip 300′ x 1800′ with paved portion lengthwise thru cntr 100′ in width and studded with 6′ steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PHOENIX-SKY HARBOR MUNI ARPT: E 2350′ rnwy 8R–26L clsd for lndgs dalgt hrs W 7950′ avbl lndg days. W 8850′ avbl tkof and lndg ngts only. W 9600′ avbl tkof dalgt hrs. Rnwy shoulder E of 8850′ portion rnwy 8R–26L unsafe. Eqpmt on or adjacent to rnwy and parallel txwys due constr., lndg/tkof length may vary, ctc twr for latest changes.

SCOTTSDALE MUNI ARPT: Clsd due constr until aprxly April 20, 1967.

WILLIAMS MUNI ARPT: Rnwy 18–36 clsd UFN.

ARKANSAS

FAYETTEVILLE RDO: FSS voice comms freqs 123.6, 126.7, 121.5 mc unusable beyond 25 NM below 5500′ MSL 240–310°.

FLIPPIN ARPT: Clsd UFN due constr.

FORDYCE MUNI ARPT: Rnwy lgts inop UFN.

RUSSELLVILLE MUNI ARPT: Clsd until aprxly Jan 3, 1967 due constr.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BLUE CANYON ARPT: Clsd UFN.

BORREGO SPRINGS, BORREGO VALLEY-SAN DIEGO COUNTY ARPT: Rotating bcn inop UFN.

CARPINTERIA, PARSONS ARPK: Clsd to all operns excpt helicopters until aprxly Jan 1, 1967 for rnwy resurfacing and constr.

GORMAN RDO: Nov 22 DME will be shutdown til aprxly Dec 9.

OCEANO-COUNTY ARPT: Constr in progress in an area 450′ SW of rnwy cntrline.

OCEANSIDE RDO: Nov 14, DME will be shutdown til aprxly Dec 2.

SACRAMENTO-METROPOLITAN ARPT: New arpt under constr 10.5 miles NW. Clsd to all traffic.

SAN CARLOS ARPT: Constr on rnwys and txwy til aprxly Dec 31. Flt operns daylgt hrs only. Lgts and bcn inop UFN. Lmtd parking for transients.

SAN DIEGO COUNTY–GILLESPIE FLD: Constr in progress until aprxly March 1967. Rnwy 17–35 tmprly shortened.

SAN DIEGO INTL-LINDBERGH FLD TWR: ILS glide slope shutdown til aprxly Dec 15 for relctn.

SAN DIEGO-LINDBERGH RDO: VOR inop dalgt hrs only til Dec 15.

SAN FRANCISCO INTL ARPT: For noise abatement purposes, and when weather conditions permit, propeller driven IFR acft departing rnwys 28 may be assigned a rgt turn and a VFR restriction until crossing the San Francisco 342 radial. *Note*: Terrain rapidly rising 3 mi NW of the arpt to 1100′.

SAN JOSE MUNI ARPT: Displaced threshold area clsd to acft over 12,500 lbs GWT.

SAN JUAN, CAPISTRANO ARPT: Clsd until aprxly Dec 15.

TRACY, NEW JERUSALEM ARPT: Clsd civilian operns except by prior permission UFN due military helicopter training.

VISALIA MUNI ARPT: Tmpry 1135′ displaced threshold rnwy 30 reducing landing length to 4760′. 30′ crane operg daylgt hrs, 1300′ SE of displaced threshold.

COLORADO

DENVER, STAPLETON INTL ARPT: Rnwy 8L–26R clsd ngts UFN, E 1800′ clsd days, remainder usable by acft under 12 500 lbs.

DENVER RDO: Dec 5, DME will be shutdown until aprxly Dec 9; Dec 6, VOR will be shutdown dalgt hrs until aprxly Dec 9.

LOVELAND-FT. COLLINS ARPT: Rnwy 6–24 clsd til aprxly October 1967.

CONNECTICUT

BRIDGEPORT MUNI ARPT: Rnwy 16–34 clsd to large acft including jets, also clsd for ngt operns.

HARTFORD, BRAINARD FLD: Rnwy 10–28 under constr, eqpmt adj to and on rnwy 2–20 intermittently until aprxly Nov.

PLAINVILLE, ROBERTSON ARPT: Constr adj to rnwy UFN.

WINDSOR LOCKS, BRADLEY FLD: Rnwy lgts rnwy 1–19 inop. Centerline and touch down zone lgts rnwy 6 inop.

WINDSOR LOCKS, BRADLEY FLD TWR: Glide slope will be shutdown for relctn til aprxly Dec 9.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoid the Washington Prohibited Area P–56. See Washington, D.C. chart under Special Notices–Area in Part 3 for location.

WASHINGTON, DULLES INTERNATIONAL ARPT: Rnwy 1R will be shut down on day-to-day basis excp when prevailing winds favor apchs from S and wea conditions below circling minimums of 500′ and 1½ mi.

✓WASHINGTON-DULLES INTL ARPT: Minimum visibility apch lgt sys rnwy 1R comsnd.

WASHINGTON NATIONAL ARPT: TURBOJET POLICY—except under emgcy conditions and subject to observance of noise abatement procedures, only those turbojet acft meeting the following criteria can be accommodated: A. Approved types of turbojet acft to short or medium range engaged in (1) Government, corporation, charter, or rental types of operations, (2) Air carrier (including supplemental air carriers) and commercial operator training, charter, or familiarization flights, and (3) Scheduled air carrier operations. B. The currently approved types of turbojet aircraft are as follows: (1) Jetstar (C–140) (2) Sabreliner (T–39) (3) Morane Sauliner 760 (4) Jet Commander (Aero Commander) (4) Learjet (Lear Jet Co.) (6) Hawker Siddley DH–125 (7) Fan Jet Falcon (8) Caravelle (9) DC–9 (10) BAC–111 (11) Boeing 727. C. Turbojet acft not listed above must secure advance authorization from the Airport Manager at least 48 hours before planned arrival time. D. Turbojet acft described in paragraph B (8) through (11) may not be operated into or out of arpt on a flight segment of more than 650 statute miles, except for non stop flights of less than 1000 miles operg to or from the following cities: Hamilton, Bermuda, Miami, Fla., Memphis, Tenn., Minneapolis, Minn., Orlando, Fla., St. Louis, Mo., Tampa, Fla., West Palm Beach, Fla.

WASHINGTON NATIONAL ARPT: Delays may be encountered at the arpt due to serious congestion of passenger, parking and ground facilities. The Federal Aviation Agency asks the cooperation of all pilots in reducing this congestion and delay. Whenever practicable, pilots are urged to use other airports serving the Washington Metropolitan Area.

WASHINGTON NATIONAL ARPT: Foreign Clearance Base. Clsd all military acft except: (a) acft carrying civilian or military dignitaries VIP codes 1 or 2 (b) CG logistic support flights cleared with Comdt. CG. General Aviation acft use General Aviation Terminal. Limited parking for all types of acft. During heavy tfc periods, pilots may be required to proceed to another airport for parking after passenger deplaning. Special Air Traffic Rules, Part 93, Subpart C, in effect.

FLORIDA

TRIPS TO PUERTO RICO AND DOMINICAN REPUBLIC NOTICE: Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

EDGEWATER, MASSEY RANCH ARPK: Clsd for repairs UFN.

GAINESVILLE MUNI ARPT: Tmpry ctl twr will be in opern Nov 26, 0800–1900 LST. Freq: 119.7 transmit-receive, 122.5 receive, only. Acft with no radio watch for lgt gun signal.

LAKE CITY MUNI ARPT: Rnwy 1–19 clsd.

MIAMI: Due to the lack of adequate inter center communications btn the Miami Center and adjacent CTA/FIR's and a continued increase in IFR and DVFR traffic btn points in Central America/Caribbean area and Florida, pilots on DVFR flights are advised to report to Key West FSS, Miami International FSS, Nassau Radio or Miami Aeronautical Radio Inc (ARINC) prior to penetrating the Gulf of Mexico Atlantic Coastal ADIZ: Pilots on IFR flights are advised to report to Miami Center, Miami International FSS Miami Aeronautical Radio Inc (ARINC), Key West FSS or Nassau Radio prior to entering the Miami FIR. Miami Center frequencies are: East of 79° West, 125.7/307.9; West of 79° are: 120.3/118.9/319.1, 124.4/281.4, 132.7/306.9, 127.7/362.3. Adherence to this procedure enhances identification and minimizes the possibility of being intercepted.

MIAMI INTL ARPT TWR: During periods of hvy tfc dual twr frequencies will occasionally be utilized. All pilots shoud be alert for frequency assignment in such cases.

MIAMI, OPA LOCKA ARPT: New N/S rnwy 3300 x 100′ with parallel txwy under constr 700′ W of existing N/S rnwy. New E/W rnwy 3500 x 100′ with parallel txwy under constr adj to S end of existing rnwy 36.

PENSACOLA MUNI ARPT TWR: ILS glide slope shut down UFN.

PENSACOLA MUNI ARPT: Constr apch ends rnwys 16 and 25 dalgt hrs. Apch lgts rnwy 16 inop.

TALLAHASSEE RDO: During shutdown of TLH VOR portion of VORTAC airways and intersections are defined by brgs from TLH Rbn located at VORTAC site instead of radials. MEAs remain unchanged. Blountstown Int is changed to MAI VOR 139 rad and PFN VOR 062 rad. RBn comsnd. Ident: TLH, Freq: 358.

Class: HW, collocated with TLH VORTAC to serve during VOR outage. Ctld by Tallahassee FSS. Unusable at ngt from Lobster, Fla Int to Scallop Int.

WEST PALM BEACH, PALM BEACH INTL ARPT: Lgtg constr in progress adj rnwy 9-27 and SE end rnwy 13-31 til aprxly Nov 1966.

GEORGIA

ATHENS MUNI ARPT: Tmpry twr will be in opern 1000-1800 EST on Nov 26. Freq: transmit and receive: 120.4, 121.5, receive only 122.5.

ATLANTA ARPT: 100′ crane operg daylgt hrs 765′ E and 1265′ N of centerline apch area rnwy 15 thru Feb 1967.

COLUMBUS MUNI ARPT: Rnwy 16-34 clsd and rnwy 11-29 decreased to 3500′ due constr.

JEFFERSON, JACKSON COUNTY ARPT: Clsd to all operns for unknown duration due constr.

MACON RDO: Dec 13 VOR will be shutdown until aprxly Dec 14, Dec 12 DME will be shutdown until aprxly Dec 23.

MONROE MUNI ARPT: Clsd for constr.

SAVANNAH, TRAVIS FLD: Rnwy 23 clsd til aprxly Feb 15, 1967.

IDAHO

BRUCE MEADOWS USFS ARPT: Closed til spring 1967.

POCATELLO MUNI ARPT: Rnwy 16-34 lgts inop UFN.

ILLINOIS

ALTON, CIVIC MEMORIAL ARPT: Constr SE end rnwy 11-29 til aprxly Jan 15, 1967. SE 400′ clsd daylgt hrs, SE 200′ clsd night; marked with temporary threshold lgts.

CHICAGO-HINSDALE ARPT: Clsd to transient tfc due constr.

CHICAGO-OHARE INTL ARPT: First 1000′ rnwy 32R clsd, tmpry threshold for rnwy 32R lctd 1000′ NW, useable length 6345′.

DECATUR ARPT: 1000′ rnwy 6-24 NE end clsd til aprxly Jan 1967, usable length 4300′.

EAST ST. LOUIS, LAKEVIEW ARPT: Clsd UFN.

GLENVIEW RDO: RBn, ident NBU inop UFN.

MOLINE, QUAD CITY ARPT TWR: ILS glide slope and lclzr serving rnwy 9 shutdown intermittently on day-by day basis.

POLO RDO: Dec 5 DME and Dec 6 VOR will be shutdown til aprxly Dec 9.

QUINCY RDO: LOM shutdown Dec 15 and 16 for mod.

QUINCY MUNI-BALDWIN FLD: Rnwy lgts rnwy 17-35 inop UFN.

ROBERTS RDO: Dec 12 DME and Dec 13 VOR will be shutdown til aprxly Dec 16.

WAUKEGON MEML ARPT: First 400′ rnwy 5 clsd for constr, usable length 3100′.

INDIANA

EVANSVILLE, DRESS MEML ARPT TWR: ILS glide slope OM and MM rnwy 21 shutdown til Dec due rnwy constr.

IOWA

BLOOMFIELD MUNI ARPT: Clsd for constr.

CLARION MUNI ARPT: Clsd to transient acft UFN.

DUBUQUE RDO: New VORTAC freq 109.2 lctd lat 42°24′05″, long 90°42′32″ operg intermittently on test.

EMMETSBURG MUNI ARPT: Clsd UFN.

FAIRFAX, FALTIS ARPT: Clsd til aprxly Dec 1, rnwy repairs.

WATERLOO MUNI ARPT: Due constr 1700′ SE end of rnwy 12-30 clsd, SS-SR, usable length of rnwy 4800′ threshold lgts will be displaced 1700′.

KANSAS

EMPORIA RDO: Dec 6 DME will be shutdown til aprxly Dec 8.

FORT SCOTT MUNI ARPT: Rnwy 11-29 clsd UFN.

HAYS MUNI ARPT: Clsd for constr.

RUSSELL MUNI ARPT: Arpt clsd ngt operns til aprxly Dec 15.

KENTUCKY

GREENVILLE, MUHLENBERG COUNTY ARPT: Rotating bcn inop UFN.

LOUISVILLE, STANDIFORD FLD: Rnwy 11-29 clsd due constr.

LOUISVILLE, STANDIFORD FLD TWR: ILS glide slope (rnwy 29) shut down UFN due rnwy constr. Lclzr and ASR will be shut down intermittently on day by day basis.

LOUISIANA

NEW ORLEANS LAKEFRONT ARPT: Mound of sand N end of rnwy 35 1200′ long 800′ wide 7′ high lgtd and mrkd. Rnwy 17 528′ tmpry displaced threshold remains til aprxly Dec 31, 1966. 175′ boom will be operg intermittently in area of apch end of rnwy 4 aprxly 300′ W of rnwy 4 til aprxly Jan 15, 1967. Rnwy 4-22 clsd except for tkof to NE til aprxly Jan 15, 1967. Rnwy 4 threshold displaced 700′ NE mrkd and lgtd. Rnwy length btn threshold reduced to 2500′. Rnwy 31 threshold displaced 637′ mrkd and lgtd. Rnwy length btn threshold reduced to 3163′. Sandbar extends into Lake Ponchartrain aprxly 100′ N of apch end of seaplane ramp. Use extreme caution apchg ramp.

✓NEW ORLEANS INTL ARPT (MOISANT FLD): Rnwy 1 threshold permly displaced 150′ N usable length 6850′. Rnwy 5 first 330′ permly clsd usable length 4688′.

NEW ORLEANS INTL (MOISANT FLD): Apch lgts and RVR rnwy 10 inop til aprxly Dec 15.

NEW ORLEANS INTL (MOISANT FLD) TWR: ILS MM serving rnwy 10 inop til aprxly Dec 24, glide slope til aprxly Dec 15.

MAINE

BLUE HILL ARPT: Clsd UFN due rnwy constr.

MILLINOCKET MUNI ARPT: Acft using rnwys 16-34 and 11-29 not visible to each other til apchg intersection.

OLD TOWN MUNI ARPT: Acft using rnwys 4-22 and 15-33 not visible to each other until apchg intersection.

MARYLAND

BALTIMORE-FRIENDSHIP INT'L ARPT: Constr UFN apch rnwy 33, rnwy shutdown intermittently from threshold to intsxn rnwy 4-22, 15 inch drop-off 90′ from threshold in apch zone rnwy 33. Eqpmt haul road 950′ from threshold rnwy 4 in apch zone.

LAUREL, SUBURBAN ARPT: Rotary wing acft must conform to normal tfc patns and hover over paved portions only.

PARK HALL ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 252° (M) from the arpt at and below 1200'.

PINEY POINT ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 336° (M) from the arpt at and below 1200'.

SALISBURY-WICOMICO COUNTY ARPT: Rnwy 4-22 clsd.

TOWSON: 10' balloon ascending 1000' per minute. 1400 to 2400 GMT daily.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Plymouth, Mass. Weather warning sign operg during hrs arpt. Signs function with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

FITCHBURG RDO: RBn inop indefinitely.

ORANGE MUNI ARPT: Summer operns in efct Apr 1–Dec 15. Use paved areas only. All rnwys open.

SUDBURY: Moored balloon, surface to 3000' lctd lat 42°25'30''N long 71°23'30''W. Grounded and returned to same lctn every hour for instrument reading 1200Z til SS. Cable mrkd with small balloons. VFR conditions only.

MICHIGAN

DETROIT, DETROIT CITY ARPT: Obstn lgts out 900' smoke stack 3 mi NW.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58'00''N long 83°47'30''W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000' AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000' AGL.

OWOSSO CITY ARPT: Obstn lgts inop on 210' twr lctd 5 mi SE.

SAULT STE MARIE: Daily blasting excp Sun btn hrs of 1500–1630 CST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200'. AGL (3000' MSL.)

TROY-JIM ROBBINS ARPT: Rnwy 18L-36R clsd due constr N end UFN.

MINNESOTA

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurona, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

MINNEAPOLIS ARTCC: Enroute radar service is provided within the geographical boundarys of its area of positive ctl, in both the low and high altitude structures, evcpt as noted below: (1) East of 91° long-radar weather advisory service is not avbl. (2) West of 96°45' long-radar weather advisory service and limited radar problem solving is only avbl from 0800–2300 CST, Mon-Fri.

NISSWA, HEYWOOD GULL LAKE ARPT: Clsd UFN.

MISSISSIPPI

HATTIESBURG MUNI ARPT: Rnwys 13–31 and 8–26 clsd until Feb 1967.

MISSOURI

KANSAS CITY MUN ARPT TWR: ILS lclzr serving rnwy 18 shutdown daylight hrs VFR only til aprxly Jan 15, 1967 for relctn.

KANSAS CITY-MID CONTINENT INTL ARPT: Major constr on all rnwys and txwys UFN.

ST. LOUIS, LAMBERT—ST. LOUIS ARPT: NW 3000' rnwy 12R–30L clsd. 6' barricades on clsd portion of rnwy flagged. Apch lgts rnwy 12R inop.

SPRINGFIELD RDO: Dec 20 DME will be shutdown til aprxly Dec 22.

MONTANA

BUTTE, SILVER BOW COUNTY ARPT: Rnwy 2-20 lgts inop UFN.

GREAT FALLS ARTCC: En route radar service except radar weather advisory service is available throughout the enlarged Great Falls ARTCC area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the Centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC.

JORDAN ARPT: Clsd when temperature 90° or higher due oil seepage.

NEBRASKA

BURWELL MUNI ARPT: Rnwy constr in progress; arpt open for limited day use.

GRAND ISLAND: Cornhusker Ordnance demolition firing in progress at lat 40° 56'50''N, long 98°31'15''W; 10 mi WSW Grand Island Mun Arpt. Surface to 1000' AGL Mon-Fri 1400-2230Z UFN.

SIDNEY MUNI ARPT: Constr NW end rnwy 12-30 UFN; 400' NW end tmprly clsd; threshold lgts rnwy 12 displaced 400' SE.

NEVADA

✓LAS VEGAS, LAS VEGAS AIR TRML: Name changed to North Las Vegas Air Trml.

LOVELOCK, DERBY FLD: One or two moored balloons 12' in diameter in enshrouding parachute will be operg about 17 nmi W from 8AM to 9PM lcl standard time until Mar 31, 1967. Surface to 6700' MSL or 2500' above test site. Balloons equipped with red flashing lgts at ngts.

NEW HAMPSHIRE

LANCASTER, GRABOR ARPT: Clsd UFN—constr.

NEW JERSEY

ATLANTIC CITY, NAFEC/ATLANTIC CITY (POMONA) ARPT: VASI lgts operg intermittently rnwy 13. Not authorized for civil use. Rnwys 4–22, 8–26 clsd til aprxly Jan 3, 1967.

✓BELMAR, MONMOUTH COUNTY ARPT: Rnwy 4–22 replaced by new rnwy 3–21, length 3000′.

BELMAR, MONMOUTH COUNTY ARPT: Rnwy 14–32 under constr until aprxly May 1967.

LAKEWOOD ARPT: Avoid area of chicken farm lctd on 240° mag brg 6000′ from rnwy.

OCEAN CITY MUNI ARPT: Open dalgt operns only. No refueling or other services avbl due constr UFN.

READINGTON, SOLBERG–HUNTERDON ARPT: Rnwys 10–28, 13–31, 14–32 and all grass areas closed.

NEW MEXICO

CARLSBAD: An abandoned arpt lctd adj to VOR bldg: strip dangerous—should not be used.

DEMING MUNI ARPT: 1600′ rnwy lgts on W end rnwy 8–26 inop. Usable length 8100′ day; 6500′ ngt.

LAS CRUCES MUNI ARPT: Rnwy 8–26 clsd for constr UFN.

RUIDOSO MUNI ARPT: 700′ high terrain N. Tkofs and Go arounds hazardous on rnwy 36. All tkofs S regardless of winds.

SOCORRO RDO: VORTAC shut down thru Dec 8.

NEW YORK

✓BUFFALO, BUFFALO ARPK: Rnwy 17–35 clsd winter months.

CICERO, MICHAEL FLD: Arpt clsd all transient acft excp tmpry NW/SE strip N of clsd rnwy 9–27 emgcy only.

HORNELL MUNI ARPT: Maintain 2500′ MSL at ngt until within 1.5SM on final apch to lgtd rnwy.

ISLIP, LONG ISLAND-MacARTHUR ARPT: Neon ladder apch lgt sys inop. Standard apch lgt sys, with sequence flashers will be comsnd June 1, 1967.

ITHACA RDO: Tmpry Rbn operg til aprxly Dec 15. Lctd lat 42°29′21″, long 76°27′38″. Ident: ITH. Freq: 388 kc. Mag var: 10°W. Class MHW.

MILLBROOK, SKY ACRES ARPT: Ctc arpt prior to lndg on unicom. Constr N end rnwy.

MONTAUK, SKY PORTEL ARPT: No fuel or svcs until aprxly June 1, 1967.

✓NEW YORK, LA GUARDIA ARPT: Txwy E cmsnd rnwy 32, 1600x60 asphalt, for NW dptrs VFR daylgt hrs.

NEW YORK, LA GUARDIA ARPT: Due to constr rnwy 13 lndg and tkof length 5971′: rnwy 31 tkof length 5971′.

NORTHVILLE, RED BARN ARPT: Clsd until aprxly May 1967, constr.

POUGHKEEPSIE, DUTCHESS COUNTY ARPT: Rnwy lgtg btn 2400–0600 (lcl time) by pilots req on 126.7, 123.6 mc.

ROCHESTER-MONROE COUNTY ARPT: Cntrline lgts rnwy 4–22 inop UFN.

WHITE PLAINS, WESTCHESTER COUNTY ARPT: Apch lgt sys 2705′ from end rnwy 16.

NORTH CAROLINA

ASHEBORO MUNI ARPT: Clsd til aprxly Jan 25, 1967.

ELIZABETH CITY MUNI ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc info. Acft without radio enter 500′ patn from the west.

NORTH DAKOTA

BEULAH ARPT: Power line across SE end NW/SE rnwy.

✓CROSBY MUNI ARPT: Rnwy 8–26 permly clsd.

MINOT, FLYING RANCH ARPT: Lgtg facils inop.

NEWTOWN ARPT: New arpt clsd; under constr.

OHIO

ALLIANCE, BARBER ARPT: Rnwy 18–36 clsd N of int, tmpry threshold mrkd with tires.

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

CLEVELAND, CUYAHOGA COUNTY ARPT: REIL inop rnwy 23 UFN.

COLUMBUS, OHIO STATE UNIVERSITY ARPT: Constr SE end rnwy 5 until fall 1966.

DAYTON, JAMES M COX–DAYTON MUNI ARPT: Constr extending N end rnwy 18–36 in progress for aprxly one year. Rnwy will be clsd intermittently til June 1967.

✓MEDINA ARPT: NW/SE rnwy permly clsd.

MEDINA ARPT: New NE/SW rnwy clsd; drainage ditch around all rnwys, soft spring and fall.

ST. CLAIRSVILLE, ALDERMAN FLD: Rotating bcn inop.

TOLEDO, MUNI ARPT: Clsd for drag racing Suns 1400–2300 UFN.

OKLAHOMA

FREDERICK MUNI ARPT: Mil jet acft operg in tfc patn dalgt hrs UFN. AAS avbl on 120.8 mc.

NOWATA MUNI ARPT: New N/S rnwy under constr lctd about 800′ E of present N/S rnwy, until aprxly Mar 1967. Rnwy 5–23 will be clsd during constr.

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: RVR inop.

OREGON

CONDON ARPT: Rotating bcn and rnwy lgts inop UFN.

NORTH BEND ARPT: About 12 nmi NNE a moored aluminum colored V shaped balloon 75′ long, aprxly 40′ diameter being used in logging operns during dalgt hrs, maximum alt 1000′ MSL. During hrs darkness will be lowered to 100′ AGL.

ONTARIO MUNI ARPT: Rnwy 6–24 clsd UFN.

PORTLAND RDO: Dec 12, DME will be shut down for mod until aprxly Dec 21. During shutdown VOR will be inop for two 8-hr periods.

PENNSYLVANIA

BUTLER, GRAHAM FLD: Extensive glider operns wknds and occasionally during week. Operns will take place off to side of rnwy UFN.

COATESVILLE, CHESTER COUNTY AREA ARPT: Constr in progress til aprxly Jan 1967.

CONNELLSVILLE ARPT: Sailplane activity dalgt hrs. No touch and go lndgs.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1967 due to banner towing.

GETTYSBURG, DOERSOM ARPT: Arpt clsd Thursday UFN.

MONONGAHELA, THOMPSON MEML ARPT: Constr until aprxly Dec 15.

MT. POCONO ARPT: First 200′ rnwy 13–31 unusable due rnwy mrkg.

NEW CASTLE MUNI ARPT: Rnwy lgts inop UFN.

PITTSBURGH GREATER PITTSBURGH ARPT TWR: ILS lclzr and glide slope rnwy 28L inop UFN.

PITTSBURGH, GREATER PITTSBURGH ARPT: First 500′ rnwy 10R clsd due constr until aprxly Dec 15.

ST. MARYS MUNI ARPT: Rnwy extension in progress til aprxly Feb 1967. Rnwy will remain open for use.

TITUSVILLE ARPT: Clsd due constr UFN.

WILKES-BARRE RDO: Limited comms exist E of Thornhurst VORTAC below 8000′ from Tannersville VOR to Wilkes-Barre VOR. All acft in this area tsmt 122.1 rcv Huguenot, N.Y.–Thornhurst–Wilkes-Barre.

RHODE ISLAND

NEWPORT STATE ARPT: Clsd until aprxly July 30, 1967, reconstr.

PROVIDENCE GREEN ARPT: Rnwy 16–34 clsd 1200–2230Z Mon-Fri until aprxly May 1967; eqpmt 200′ from apch end rnwy 34.

SOUTH CAROLINA

CALHOUN FALLS, HESTER MEML ARPT: First 1000′ rnwy 28 clsd; arpt clsd ngts UFN.

COLUMBIA-METROPOLITAN ARPT TWR: ILS LOM inop UFN.

MONCKS CORNER MUNI ARPT: Clsd due constr UFN.

SOUTH DAKOTA

BRITTON MUNI ARPT: N/S rnwy clsd until aprxly July 1, 1967 due constr.

HURON, HOWES MUNI ARPT: N/S rnwy clsd until aprxly May 1, 1967.

PIERRE MUNI ARPT: Rnwy 7–25 clsd. Rnwy 17–35 clsd from int rnwy 12–30 to S end, 5000′ avbl; clsd to acft over 10,000 lbs. Rnwy lgts inop.

REDFIELD ARPT INC: Clsd until aprxly May 1, 1967.

SIOUX FALLS RDO: Dec 20, VOR will be shut down for mod thru Dec 22.

BRITTON RDO: DME unusable within 10 nmi.

TENNESSEE

COPPERHILL, MARTIN CAMPBELL FLD: Clsd indefinitely due constr.

CROSSVILLE MEML ARPT: Clsd ngt operns until aprxly Dec 14 due to constr.

HALL, LAUDERDALE COUNTY ARPT: Abandoned arpt 1 mi NW. Unmrkd and extremely hazardous—not to be used for lndgs or tkofs.

✓**MEMPHIS METROPOLITAN ARPT:** Rnwy 3–21 now 5247′; rnwy 14–32 now 3200′.

ROGERSVILLE, STIPES STRIP: Clsd UFN.

TEXAS

AUSTIN, MUELLER MUNI ARPT: Rnwy 12L–30R and 16L–34R clsd til aprxly Dec. 26.

✓**BROWNSVILLE, RIO GRANDE VALLEY INTL ARPT:** Lgts on 13R–31L operg normally. This corrects AIM parts 2 and 3.

BROWNWOOD MUNI ARPT: Rnwys 3–21 and 17–35 clsd UFN.

BRYAN, COULTER FLD: Rnwy 13–31 clsd for hard surfacing. During constr rnwy 4–22 shortened to [illegible]′ and 17–35 to 2100′.

COTULLA MUNI ARPT: Use bladed areas only.

DALLAS, HIGHLAND PARK ARPT: Hvy road equipment operg N end N/S rnwy.

ELMDALE ARPK: New arpt clsd to all operns. Under constr 3 mi NE Abilene Muni Arpt.

FAIRFIELD, WATSON ARPT: Rnwy lgts inop UFN.

HONDO MUNI ARPT: Jet trng acft touch and go dalgt VFR Mon-Fri.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

LA GRANGE, GUENTHER FLD, LA GRANGE MUNI ARPT: Rnwy 1–19 clsd UFN.

NEW BRAUNFELS, CLEAR SPRING AUX ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs.

ROBSTOWN, NUECES COUNTY ARPT: Rnwy 13–31 constr, arpt clsd all operns except E–W rnwy until aprxly Jan 5, 1967.

SAN ANTIONIO INTL ARPT: Constr thru Sep 1967 extending rnwy 3–21. Rnwy 21 displaced 750′ S for lndg. Rnwy 17–35 clsd.

SAN ANTONIO INTL ARPT TWR: ILS (rnwy 3) shut down UFN due rnwy constrn.

SULPHUR SPRINGS MUNI ARPT: Bcn and rnwy lgts inop UFN.

TEMPLE, DRAUGHON-MILLER ARPT: Rnwy 11–29 clsd UFN.

UTAH

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100′ higher than canyon rim.

VIRGINIA

ALEXANDRIA, WASHINGTON-VIRGINIA ARPT: Runway 12–30 clsd intermittenly UFN due constr. Arpt clsd ngt operns.

CHARLOTTESVILLE-ALBEMARLE ARPT: Strobe inop.

CLIFDALE RDO: VOR unusable beyond 30 nmi and above 18,000′ til aprxly Mar 31, 1967.

DUBLIN, NEW RIVER VALLEY ARPT: First 200′ rnwy 23 unusable due rnwy extension in progress UFN.

FELKER RDO: VOR unusable excp for VFR practice use UFN.

GORDONSVILLE MUNI ARPT: Rotating bcn inop UFN.

WASHINGTON

MARYSVILLE, CHADWICK SEAPLANE BASE: Clsd UFN.

PASCO, TRI-CITIES ARPT: Rnwy 2L–20R Clsd 0730–1600 lcl time UFN due constr edge of rnwy. Rnwy 11L–29R for ngt operns durg constr.

SPOKANE RDO: DME will be shut down, Dec 12 until aprxly Dec 22, for antenna replacement.

TACOMA INDUSTRIAL ARPT: Use rnwys and txwys only. Men and equip on fld 0800–1700 Mon thru Fri UFN. Ctc McChord RAPCON on 120.1 mc for IFR clearance.

WEST VIRGINIA

BERKELEY SPRINGS, POTOMAC ARPK: Clsd to ngt operns. No acft over 17,000 lbs GWT permitted UFN.

CHARLESTOWN RDO: DME will be shut down Dec 12 until aprxly Dec 18, and VOR will be shut down Dec 13 for aprxly 10 hrs for mod.

HUNTINGTON RDO: Rbn inop UFN.

WHITE SULPHUR SPRINGS, GREENBRIER ARPT: Hazardous ridge across rnwy, 200′ from apch end rnwy 26. Touchdown on this ridge prohibited.

WISCONSIN

BEAVER DAM ARPT: Unsafe for lndg due rufness sod UFN.

CHETEK MUNI ARPT: Rnwy lgts inop until aprxly May 1, 1967.

LACROSSE RDO. MHW shut down UFN.

WAUKESHA ARPT: E/W rnwy clsd.

WAUPUN, WAUPUN FLYING SERVICE ARPT: N/S rnwy clsd to transient acft UFN.

WYOMING

KEMMERER MUNI ARPT: Rotating bcn and bndry lgts inop til spring.

LANDER, HUNT FLD: When surface winds are 20 knots or greater, from SW, W, NNW, it is recommended that a rgt hand dptr patn be made to take advantage of updrafts from existing terrain in order to gain alt.

LUSK MUNI ARPT: Rnwy lgts and bcn inop.

PUERTO RICO

SAN JUAN, ISLA GRANDE ARPT: Constr in progress new rnwy lgtg sys.

VIRGIN ISLANDS

ST CROIX, CHRISTIANSTAD, ALEXANDER HAMILTON ARPT: Rnwy 9/27 clsd, W txwy open for operns, asphalt 75x4800′ shoulders compacted earth total 150′ wide, lgtd.